Inclusion in Practice: An explanatory study of how patterns of classroom discourse shape processes of educational inclusion in Tanzanian secondary school classrooms

Lisa Beth Walker
October 2019

Darwin College
This dissertation is submitted for the degree of Doctor of Philosophy

Declaration:

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

Abstract

While access to secondary school is increasingly available to a larger and more heterogeneous population of learners, expansion in enrolment masks the reality that educational inequalities are widening. Using a comparative and in-depth qualitative research design, this dissertation explores processes of educational inclusion and exclusion as they unfold within the classroom walls, where it is teachers who determine how access to the curriculum and classroom culture is created and sustained. Data generated through 12 lesson observations and accompanying stimulated recall interviews enable consideration of how patterns of teacher discourse influence teacher capacity to foster inclusivity, and why such patterns emerge. Data gathered through key informant interviews and focus group discussions support the scrutinization and triangulation of tentative findings drawn from the observation and stimulated recall data. This research is premised on the need to expand our knowledge of what inclusive education can mean in classrooms typically characterized by material and human deprivation, and in teaching approaches most often defined by a strong pedagogic tradition of knowledge transmission. The findings support the construction of an explanatory framework revealing the ways in which patterns of classroom discourse shape teacher capacity to foster inclusion in Tanzanian secondary school classrooms. They reveal the importance of three moments embedded within each teacher-student interaction: The moment within which a turn is allocated, the moment within which a student response is interpreted by a teacher, and the moment within which a teacher then follows up. The findings demonstrate the power of the multiple continua of discursive strategies within which teachers move, revealing the specific decisions and respective trade-offs which influence teacher capacity to foster processes of educational inclusion. The findings are significant for expanding our understanding of the intersection between pedagogy and inclusion in the Tanzanian context, generating insight into that which teachers do, the reasons for why they do it, and the contextually relevant levers for change.

Table of Contents

List of Figures

List of Tables

Chapter 1. Introduction

Secondary education influences students at a pivotal moment in their personal and social development, preparing young people to enter adulthood with the skills and knowledge required in order to meaningfully contribute to their families and communities. Secondary schooling – long neglected – is steadily gaining visibility in countries across the developing world, particularly in contexts where there has been rapid progress in universalizing primary education (Holsinger & Cowell, 2000). Once an opportunity reserved for a privileged few, access to secondary school is gradually becoming available to a larger and more heterogeneous population of learners. Evidence from across sub-Saharan Africa indicates that while the gross enrolment ratio remained at just below 50% as of 2011, the number of students enrolled in lower secondary school more than doubled in the 2000s (UNESCO, 2014), and more than tripled in Tanzania (MoEVT, 2014).[1] This rapidly changing education landscape makes it an extraordinary time to contribute to discussions of secondary education. To effectively absorb students from diverse and often marginalized social, economic and cultural backgrounds, education systems in Tanzania, and across the developing world, need to ensure policy and provision that are responsive to social and economic diversity, providing appropriate support for equitable and quality learning at scale.

In my work in Tanzania throughout the past decade, I have been struck by the massive under-performance of students who, once enrolled in government Ordinary Level secondary schools, fail to thrive. While progress throughout the past two decades should not be underestimated, increases in enrolment mask the reality that students are not achieving age-appropriate learning outcomes, that completion rates are significantly lower than gains in enrolment would suggest, and that educational inequalities are widening (MoEVT, 2014; Todd & Attfield, 2017). The OECD defines equity in education as providing all students with opportunities to benefit from education, regardless of personal and socio-economic circumstances (OECD, 2012). While equitable education does not require that all students achieve the same results, it does imply that students' personal and background characteristics should not undermine their potential. In the spirit of progressive universalism, progress

---

[1] Enrolment statistics vary across sources. However, there is general consensus that there was a rapid increase in students enrolled in lower secondary schooling in Tanzania, with the number of students enrolled at this stage increasing by roughly three times between 2005 and 2012 (MoEVT, 2014; Todd & Attfield, 2017). There have been no official figures published since 2014, which may be indicative of changes in Government and the recent creation of legal restrictions regarding the collection and dissemination of statistical information (W. Bgoya, personal communication, August 5, 2019).

towards equity requires actions ensuring that all students gain access to high quality learning opportunities, with additional support for those who are most vulnerable. The 2013/14 EFA Global Monitoring Report highlights that recent gains in completion rates among secondary school students in sub-Saharan contexts are dominated by students in the wealthiest quintile, indicating widening inequality between the poor and rich. International reports consistently demonstrate the enduring impact of social, economic, and geographic marginalization on students' opportunities to learn.

Professor Oketch (2017), at the launch of the Centre for Education and International Development, noted that education systems in Africa are designed for meritocracy, with the objective of supporting an elite few. Emerging from colonial education policies which sought to suppress the majority, contemporary secondary schooling continues to serve discriminatory functions in many sub-Saharan countries. Research suggests that demand for lower secondary education has outpaced supply, limiting access to high quality lower secondary school to those students who perform well above average or come from wealthier families and can therefore afford private tuition (UNESCO, 2014). The vast majority of students are subsequently relegated to lower quality government schools, contributing to poor learning outcomes and low retention rates for the majority. In a review of education reforms in countries around the world, a report prepared for the UNESCO International Working Group on Development and Disability notes the tendency for countries to focus on the 'easy to reach' populations, neglecting those excluded for social, economic, or geographic reasons (Magrab, 2003). Widespread inequalities in lower secondary completion perpetuate the marginalization of the majority despite the expansion of schooling. With more children and adolescents enrolled in school today than ever before, there is a pressing need to examine how government schools, particularly those serving typically marginalized populations, can provide quality and equitable learning opportunities for all.

Inclusion, a policy directive made in response to the challenges of educational inequities, aims to transform school systems through the removal of barriers to student participation and learning. The 2010 EFA Global Monitoring Report highlights that "Only inclusive education systems have the potential to harness the skills needed to build the knowledge societies of the twenty-first century" (Unesco, 2010, p. i). This push for inclusion can be traced back to the early 1990s. The 1994 Salamanca Declaration, the 2000 Dakar World Education Forum, and the United Nations Development Goals have affirmed and reaffirmed that all children,

without exception, have the right to education. It has since been taken up in the education discourse of countries across the global South.[2] While the ideals articulated in international discourse resonate in political realms across the globe, the reality within many communities, schools and classrooms remains one of exclusion (Armstrong, Armstrong, & Spandagou, 2011). There is therefore a need to specify the practices underpinning the term inclusion in order to accommodate its purposes within educational spaces whereby the majority are excluded.

While there is an overabundance of ways in which to define educational inclusion, the analysis herein focuses on the ways in which *instructional processes* shape the creation of pathways for the participation and learning of *all* students given *the heterogeneity of learners and their diverse and multifaceted learning needs*. Policy dictates that all school-aged children be admitted to school; however, within the classroom walls, it is the teachers who determine the extent to which access to the curriculum and classroom culture is created and sustained (Singal, 2005; Srivastava, de Boer, & Pijl, 2015). As powerful educational actors, teachers are the ultimate arbitrators of inclusion in the classroom, and therefore, progress towards educational inclusion cannot be achieved without establishing a clear understanding of the opportunities and constraints that shape, and are shaped by, teacher practice. Yet, as noted by Srivastava, de Boer, and Pijl (2015), there is a paucity of research investigating the role of teachers in educational inclusion, particularly in countries in the global South. This dissertation was planned to fill palpable gaps in the literature through an exploration of the limitations and creative solutions evident within existing pedagogical practices. It has been framed with the goal of exposing both inclusionary and exclusionary practices as they unfold within typical secondary school classrooms in Tanzania. It was designed in order to respond to questions posed within extant research about what inclusive education can mean in school systems designed for meritocracy, in classrooms typically characterized by material and human deprivation, and in teaching approaches most often defined by a strong pedagogic tradition of knowledge transmission.

The research objective guiding my work is the establishment of an explanatory framework for how processes of inclusion and exclusion unfold within Tanzanian Ordinary Level

---

[2] For the purposes of this report, the terms "global North" and "developed country" are used interchangeably, as are "global South," "low-income country," and "low-resource context". While these terms are highly contested in social science literature, for the purpose of simplicity, they are utilized herein.

secondary school classrooms as a function of the patterns of behaviour underpinning teacher practice. More specifically, the research presented herein details an in-depth exploratory analysis of the ways in which patterns of classroom discourse shape, and are shaped by, teacher capacity to foster social and academic inclusion or exclusion. In the verbally interactive context of the classroom, processes of social and academic inclusion or exclusion are largely fostered discursively. Through their discursive acts, teachers define and control which knowledge will be valued, and dictate which student contributions will be validated and which will be ignored or discouraged. Drawing on sociocultural views of learning, the analysis presented herein explores how the language that teachers rely upon, and the forms of classroom discourse they facilitate, serve as vital tools which influence the character of students' participation and learning (Edwards & Mercer, 1987; Florian & Kershner, 2009; Nystrand, 1997).

While an in-depth focus on classroom discourse has the potential to isolate classroom-level happenings from the wider context within which they occur, it serves as a useful microcosm, enabling for the establishment of a nuanced and grounded understanding of the larger social contexts within which it functions (Erickson, 2004 as cited in Pierson, 2008). The analysis and resulting framework (see Chapter 7) presented herein is based on an appreciation for, and recognition of, the importance of bottom-up, local social practices and the ways in which they both reflect and shape larger-scale phenomena. Familiar classroom activities, such as whole class oral questioning and answering, occur frequently; however, as noted by Wells (1996), the forms of discourse through which such activities are realised do not follow the same pattern across time or participant. It is hypothesised herein that it is these differences which define the ways in which teachers are enabled or constrained in the operationalisation of processes of educational inclusion in the classroom, and therefore serve as influential levers for change.

I have positioned my research within Tanzania for a multitude of reasons. Firstly, many of the ideals underpinning the notion of inclusive pedagogy have emerged from Western notions of teaching and learning. My research has been influenced by the need to consider what inclusive education could mean given the current practices of teachers in a low-income, sub-Saharan context. This focus creates space for a process of contextualization, without which, the discourse of the global education agenda may never transition from the realm of international ideal to the lived realities of the classroom. In addition, my decade-long work in

Tanzania as a teacher tutor highlighted the need to establish a more holistic research base elucidating how increasing access for previously marginalized populations can be utilized as a resource in the classroom. The government of Tanzania has, as of 2016, removed all school fees for Ordinary Level secondary school students, creating a particularly historic moment in which to examine the ways in which teachers support the participation and learning of *all* students within the classroom. Furthermore, research indicates that Tanzanian teachers tend towards inclusivity for all learners in ways which are largely absent in other sub-Saharan contexts (Rugambwa & Thomas, 2013; Westbrook & Croft, 2015). These findings indicate that Tanzania is a particularly relevant research context in which to examine the opportunities and challenges associated with educational inclusion in low-resourced sub-Saharan schools.

I formed a partnership with Camfed (https://camfed.org), a non-governmental organization (NGO) dedicated to the eradication of poverty in Africa through the education of girls and the empowerment of young women, in order to support my research activities. Camfed provides direct financial assistance to economically marginalized girls, and fosters community engagement in school life, working to ensure students have the resources and support required to attend secondary school. By positioning my research within Camfed supported schools, I maximized opportunities to consider teacher practice when engaging with typically marginalized student populations, and the opportunities and constraints that shape and define their practices. By situating my research within the Camfed network, which is connected to national governments and local communities across the African continent, I bolster the likelihood that my research will contribute to policy and practice. I have been guided by the objective of generating research that can be used to inform the development of contextualised and supportive teacher professional development programming. I have also sought to contribute to the growing body of research seeking to demonstrate how existing practices in Tanzania, and other often marginalised contexts across the global South, can serve as a valuable resource which can be used to advance the goals of the global education agenda rather than being conceptualised as a hindrance to their fruition.

The following chapter presents a review of literature examining both education service provisioning in Tanzania and the development, conceptualization, and implementation of educational inclusion as a term and phenomenon around the world. Chapter 3 provides an overview of the research design and supporting methodology, including elaborating upon the ontological and philosophical underpinnings, methods for data collection and analysis, and a

consideration of ethical issues and methodological learnings. It describes a comparative and in-depth qualitative research design used to evaluate the complexities associated with educational inclusion as experienced by the teachers responsible for its implementation. Chapters 4, 5, and 6 present in-depth descriptions of the research findings. Each of the three findings chapters contains four elements: a targeted review of literature, an explanation of the specific analytical process applied, a presentation of findings, and a discussion, respectively. Chapter 4 considers the turn-allocation procedures employed by teachers, and how they shape teachers' capacity to create space for, and safeguard, student voice. Chapter 5 explores the nature of teacher questioning in terms of teacher capacity to draw out evidence of and recognize students' diverse learning needs. Chapter 6 leverages the construct of responsiveness and its instantiation in teachers' followup moves in order to examine the ways in which teachers are sensitive toward, and adapt as a function of, students' cognitive and affective needs. Chapter 7 presents the final discussion, reflecting on the substantive contributions of this research to the field of education inclusion, highlighting some of the core theoretical and methodological contributions and challenges generated through the research process, and reflecting on the implications of the findings for further research. As Ainscow, Dyson, Goldrick, and West (2012) note, no school works equally well for all of its students; however, the question is how the teachers operating within it can be best positioned to be responsive to the diverse needs of all students. My objective is to generate research that contributes to the formation of relevant and viable answers.

Chapter 2. Contextual Overview and Review of Literature

The following chapter is divided into two sections. Section 2.1 provides an introduction to the context of the study. It is oriented both toward providing a historical overview of the development of inequities and exclusions in education in Tanzania as well as providing insight into the current state of education. Section 2.2 provides insight into the current knowledge and substantial findings in the field of educational inclusion. The section balances the need to define the development of educational inclusion as a policy initiative and as a pedagogical practice, framing the importance of the research questions stated at the outset of Chapter 3.

2.1 Tanzania: The education landscape

Tanzania is situated just south of the equator, located between the great lakes of Victoria, Tanganyika, and Nyasa on the West, with the Indian Ocean to the East. It is bordered to the North by Kenya, and to the South by Mozambique. The country is home to over 125 tribes, reflecting a rich diversity of social, linguistic, and cultural heritage. Despite this considerable amount of diversity, Tanzania is considered unique in that, unlike other African countries, the sociolinguistic context is largely united by one African (Bantu) language, Kiswahili. Spoken by over 95% of the population, Kiswahili fills the role of lingua franca and national language. It promotes social cohesion across tribal boundaries, thereby reducing the likelihood of ethnic conflict so prevalent in other highly diverse sub-Saharan contexts (Miguel, 2004).

According to recent UNESCO estimates, the population is approximately 57 million, with an annual growth rate of 3.1% (UNESCO, 2019). With over 45% of the population aged 14 years and younger, youth represent Tanzania's most abundant resource. Extant research investigating the 'youth bulge,' and its implications across the low-income countries of the world, concludes that such a large population of young people also presents a number of challenges related to the provisioning of public services, unemployment, social upheaval, and marginalisation (Bertocchi & Guerzoni, 2012; Hope, 2012; Ortiz & Cummins, 2012; Sommers, 2010). The realities of such a massive population of youth both elevates the importance of ensuring access to high quality educational opportunities, and increases the challenges related to its provisioning.

Before delving into a review of literature examining the history of educational inclusion, and the opportunities and constraints defining its implementation in classrooms around the world, it is essential to first establish a shared understanding of the wider context within which this study has taken place. The following overview of the Tanzanian context provides insight into the policies, ideologies, and philosophies underpinning the development of the basic education system in general, and secondary education in particular. It provides insight into changes in the education system, both in terms of questions of access and quality, since the advent of formal schooling in Tanzania in the mid 19th century. It situates contemporary questions of equity and educational inclusion in a history of social, racial and linguistic segregation as well as a long track record of an education system characterised by material and human deprivation. The section thereafter provides a brief overview of the current state of education, including an overview of the structure of the education system and current enrolment and completion rates. The final section provides an overview of teacher training and support as well as an introduction to the literature outlining contemporary trends in teacher practice.

2.1.1 Historical inequities in education service provisioning in Tanzania

The development and maintenance of the formal education system in Tanzania reflects the dynamic nature of social and economic inequity and exclusion. Pre-colonial education in Tanzania, while invariably diverse, was underpinned by the desire to both reinforce a sense of cultural solidarity and to promote traditional gerontocratic tribal social structures (Mushi, 2009). By the 1850's, Quranic schools were well established along the coast of mainland Tanzania, and their missionary counterparts had begun the process of constructing 'bush schools', religious teaching centres, in northern parts of the country. With the spread of formal Christian and Islamic education came a concomitant emergence of externally imposed forms of social and economic inequality. The spread of these non-indigenous forms of education throughout the 19th century resulted in the introduction of competing values and alternative methods of social enhancement (Buchert, 1994). As noted by Mushi (2009), by recruiting converts from typically marginalised social and ethnic groups, the establishment of religious schools undermined traditional social structures. While social inequities and exclusions were present within indigenous social structures (for discussion of these dynamics and how they were differentially reflected in post-colonial literature, see Sheriff, 1974), these were replaced with new and more explicit forms of social exclusion more closely aligned

with, and supportive of, the changes in social conditions that missionary communities sought to invoke (for additional information about this time period, see Gabbert, 2001; Mushi, 2009).

Under colonial rule in the late 19th century and first half of the 20th century, access to varying types of formal schooling continued to serve as a vital instrument in the restructuring of traditional social structures. Under the British colonial government, a more explicit form of institutionalised segregation and marginalisation emerged in which race and colour determined the types of opportunities children were able to access (Mushi, 2009; Ulimwengu, 2005). Separate school facilities for Europeans, Indians, and Tanzanians were formally established under British colonial rule, with substantial variations in terms of the qualities of facilities provided to each group. Whereas Asian and European schools provided academic education with clear pathways to higher learning, schools for African students were largely limited to opportunities for vocational training, with few opportunities for continuation beyond primary levels. As noted by Mushi (2009) in his historical overview of the development of education in Tanzania, the form and content of these different education systems corresponded to the different positions held by each racial group within the colonial economy. Africans were not intended to have any control over the system, and therefore, a bare minimum of skill and knowledge was considered as sufficient for them fulfil their roles as 'producers.' Through the use of rituals, such as caning and standing at attention (when teachers entered the classroom), African education emphasised obedience, passiveness, and hard work. These processes are indicative of the role of African education in producing submissiveness, a sense of inferiority, and a focus on extrinsic motivation still evident in Tanzanian schooling culture today.

Upon achieving independence in 1961, the population remained largely illiterate. Limited by a lack of opportunity and inadequate income, ninety per cent of the country's labour force, including those who had completed primary schooling, were engaged in subsistence agriculture (Ishengoma & Youngman, 1999). As described by the first president of the United Republic of Tanzania, Julius Nyerere, in response to the glaring inequalities in colonial systems of education:

> *All European children and Asian children receive primary education. Only 40% of the African children go to school. We are told that this is because there is not enough money in the country to give education to every child; and that unless Europeans can be sure*

that their children will receive education they will not come to Tanganyika, and the African will suffer. So, this apparent injustice to the African, like so many others, is done for 'the good' of the African (Nyerere, 1956 as cited in Ulimwengu, 2005).

Given his emphasis on the inequities inherent in the racially segregated education system of the colonial era, one of the first objectives of independence under the newly formed government was to abolish racial discrimination in educational opportunity (Buchert, 1994; Ishengoma & Youngman, 1999; Ulimwengu, 2005). In a move to address issues of access, quality, and equity, Nyerere introduced Education for Self-Reliance (ESR), reorganizing the education system in order to 'reduce elitism and the tendency for schooling to further social and other inequalities and class formation' (Cooksey, 1986, p. 183).

In 1974, in an attempt to abolish barriers to education, and to support the creation of a more equal society, Nyerere committed to the achievement of Universal Primary Education (UPE). Subsequent improvements to access were rapid and substantial, with more than 90% of primary school-aged children enrolled in school by 1984 (Mbilinyi, 2003; Sabates, Westbrook, & Hernandez-Fernandez, 2012). Despite this massive expansion in primary schooling, there was little attempt at the expansion of secondary education. As noted by Cooksey (1986), the expansion of the private sector in secondary education was sanctioned in order to satisfy a minimum level of demand. Notably, this decision undermined the goals of the just and equitable society driving ESR and the growth of primary schooling. Nonetheless, only 1-2% of students progressed onto secondary school at this time (Sabates et al., 2012), with enrolment limited to those needed to serve the government, and no more (Cooksey, 1986; Wedgwood, 2007).

At the primary level, the rapid increase in the student population exerted great pressure on education infrastructure, making the financing of education increasingly challenging and negatively impacting the maintenance of educational quality (Sifuna, 2007). Under the guise of a community-focused ESR, the provisioning of material resources and infrastructure was shifted from state control to local government and parents. This led to a new form of inequity as a function not of race, but of geographic disparities in access to resources (Sabates et al., 2012). By the mid to late 1980s these economic inequities were amplified as the World Bank pursued a system of cost-sharing under the auspices of the Structural Adjustment Programmes (SAPs). This approach to financing education provided an avenue to reduce the growth of recurrent expenditure at the expense of equity and inclusion. These shifts

contributed to substantial decreases in gross enrolment rates in the early 1990s, particularly in rural and less economically developed regions (Sifuna, 2007).

In the early 2000s and in response to the global movement initiated through the establishment of the Millennium Development Goals (MDGs), efforts were made to reinitiate universal access to primary education, and to increase access to lower level secondary education. Through the Primary Education Development Program (PEDP) in 2002, and guided by the principles of access and equity underpinning the MDGs, all primary school fees and other contributions were yet again abolished so that no child would be denied an education on the basis of socio-economic status. As a result, according to the Prime Minister's Office (2014), enrolment in primary education increased 16.2% from 2004 to 2013. As noted by Sifuna (2007) this second wave of UPE largely failed to heed the lessons gleaned from the first, as challenges in maintaining the quality of education were yet again exacerbated by the instantaneous leap in enrolment.

At the secondary level, enrolment in lower secondary school increased by a staggering 330.4% from 2004 to 2013 (Prime Minister's Office, 2014). This growth is largely the result of the Community School Act passed in 2005, a new policy which required that every ward have its own Community Secondary School (Form I-IV). The government Circular Number 5[3] of 2015 echoed the dynamics played out within the primary sub-sector over the past several decades. The circular abolished school fees through the end of Ordinary Level secondary school (Form IV), again exacerbating insufficiencies in budget allocation and leading to rapid and massive declines in the quality of what was already considered an under-performing education sector.

As is further examined below, lacking the systems, structures, and human and financial resources to accommodate new levels of demand at the primary and secondary levels respectively, the growth resulted in yet another sharp decline in the quality of schooling (Sifuna, 2007). Such dynamics have resulted in a process whereby students are attending school, but the majority of them are not learning. As noted by Rose and Alcott (2015), these dynamics continue to exacerbate already expanding inequalities. Driven by disparities in

---

[3] This is part of implementation of the Education and Training Policy 2014 and reflects President John Magufuli's pledge to provide free education.

wealth and other forms of disadvantage, new strategies are needed to eliminate the learning inequality gap and overcome the limitations of poor-quality education for the majority. The following section provides a brief overview of the current system, including enrolment and pass rates, in order to better situate contemporary challenges in education service provisioning.

2.1.2 Current performance and notable challenges

The formal education system in Tanzania is based on a 2-7-4-2 structure. It entails two years of pre-primary education, seven years of primary education (referred to as Standard 1-7), four years of lower secondary school (referred to as Ordinary Level, Form 1-4), and two years of upper secondary school (referred to as Advanced Level, Form 5-6). This is followed by limited opportunities to join a college, vocational training institute, or university. Students sit for high-stakes assessments at the end of Standard VII, Form IV, and Form VI, whereby their results determine access to the next grade level.

As indicated in the historical overview of the development of formal schooling above, in the past decade, the Government of Tanzania has demonstrated commitment to increasing education access for all. They have been working toward significant enrolment expansion, particularly at the primary and lower secondary levels. While the progress made under attempts at universal access to education should not be under-estimated, millions of Tanzanian children and adolescents aged 7 to 17 remain out of school, including nearly 1.5 million adolescents of secondary school age (Martínez, 2017). According to a recent report by the Human Rights Watch, only 52% of the eligible school population are enroled in lower-secondary education, and far fewer actually complete (2017). Even with the abolition of school fees, the cost of other incidentals including school uniforms, learning materials, food, and transport is prohibitive for many of the poorest students. Additionally, the government has no viable mechanisms in place for the re-entry of students who have dropped out. Therefore, many of the students who dropped out of the education system prior to the abolition of fees in 2016 have no pathways for re-entry. Other barriers to access to secondary education include the high stakes test at the end of primary school which, given the poor quality of primary school education, results in high numbers of students failing to achieve the

marks required to progress.[4] Finally, many students have to travel several kilometres to get to and from school, with limited boarding opportunities. Therefore, even if students progress to secondary school, attendance and performance is influenced by this very real constraint. Several other challenges related to school safety and security, infrastructure, sanitation, and medium of instruction also negatively impact student capacity to attend school, learn, and complete (Martínez, 2017).

Similar to the challenges encountered following the first wave of universal primary education in the 1970s, rapid increases in the student population have exerted great pressure on the education infrastructure, resulting in what the 2013/2014 EFA Global Monitoring Report refers to as a global 'learning crisis' whereby children are enrolled in school but are not learning. In Tanzania, primary student pass rates fell from 70% in 2006 to 30% in 2012, while secondary student pass rates declined from 90% to 43% during the same time period. This led to the creation of the Government launched Big Results Now (BRN) initiative in 2013, for which the education sector was one of six sectors to attract substantial human and financial investment. As part of the initiative, BRN sought to fast-track improvements in learning outcomes in both primary and Ordinary Level secondary school. At the secondary level, pass rates for the Form 4 Certificate of Secondary School Exit Examination (CSEE), which had dropped to 43% in 2012, increased to 57.1% in 2013 and 69.8% in 2014.[5] However, as a result of substantive changes in marking of the CSEE in 2014, the comparability of results across these years is not possible (Todd & Attfield, 2017). Nearly 80% of all students who sat for the certificate of secondary education examination in 2018 achieved passing marks; however, the vast majority of students achieved the minimum score required, and are therefore still unable to access Advanced Level education (Mtema, 2019).

Research reveals that these figures are underpinned by massive disparities between rich and poor, and continuing disparities between boys and girls, in both access to education, and learning. According to the Uwezo Learning Report (2013) children from poor households are more than twice as likely to underperform in adolescent literacy than their peers from non-

---

[4] The government uses the PSLE solely as a tool to select children that are allowed to enter secondary school, instead of using it as an assessment tool to assess students' performance and tackle learning barriers and poor quality instruction affecting students (Haki Elimu, 2008).

[5] Notably, in 2014, as a result of changes in policy, the actual number of candidates sitting for the CSEE decreased significantly. Therefore, while the overall pass rate increased from 2013 to 2014, the actual number of candidates achieving passing marks decreased by over 30,000 students, from 200,000 in 2013 to 168,000 in 2014 (Todd & Attfield, 2017).

poor households. While pass rates for Ordinary Level secondary school have reversed since 2012, access to higher education continues to be reserved for a privileged few, placing an intergenerational ceiling on community wellbeing and economic development.

As has been extensively documented in extant research, several challenges in maintaining quality education at scale continue to undermine efforts to support student progression and learning. While the abolition of school fees serves as an essential action taken by Government to support national and international education objectives, in order to fully realise the right to secondary education for all children in Tanzania, a multitude of surmountable challenges will need to be overcome. These challenges included, but are not limited to: School funding, infrastructure, school-based safety and security, challenges related to the curriculum and the assessment regime, teacher shortages, teacher education and ongoing professional development.

While not directly addressed within this dissertation, one enduring challenge relates to the medium of instruction. As was noted within the introduction to this chapter, Tanzania is unique in that over 95% of the population speak one language, Kiswahili. Despite the predominance of Kiswahili, Tanzania maintains a late exit transition model[6] whereby there is a crucial disjunction between the socially dominant language, Kiswahili, and the language required to gain access to secondary education, English. Despite the institutionalization of English, it is spoken by only 5% of the population, yet access to post-primary education continues to be dependent on English language proficiency (Brock-Utne, 2010; Roy-Campbell & Qorro, 1997).

Several qualitative studies observing Tanzanian classrooms suggest that English medium instruction has alienated pupils from their coursework, creating disengaged and apathetic students (Roy-Campbell, 1997; Brock-Utne, 2001; Ferguson, 2006). The LOITASA project investigated the ways in which English medium and Kiswahili medium instruction influence the learning and teaching process (Brock-Utne, 2010). The project, which was conducted in secondary schools among Form 1 students (the first year that students are exposed to English

---

[6] The learners begin school in the L1 (Kiswahili) and then switch to the L2 (English) as the medium. The transition is delayed to the first year of secondary school, hence this a *late-exit (from L1) transition model.* The learners' Kiswahili skills (L1) are replaced by English (L2), creating a tri-fold problem for Tanzanian secondary school students in which their knowledge of their L1, L2, and subject areas are compromised (Brock-Utne, Desai, & Qorro, 2006; Ferguson, 2006).

as the medium), involved qualitative analysis of two Form 1 classes learning the same materials and taught by the same teacher. The study found that students learning in Kiswahili were engaged, creative and able to apply critical thinking skills to generate new knowledge. Students learning in English-only classrooms were quieter, experienced a slower learning pace (only half of intended materials taught), required more discipline and generally displayed higher levels of apathy to their learning processes. In addition, research clearly indicates that teachers too lack sufficient English language proficiency (Kitta & Fussy, 2013; Lupogo, 2016; Mwinsheikhe, 2008). Such constraints no doubt hinder their capacity to engage flexibly and responsively in classroom-based talk about academic content or otherwise. While consideration of the influence of medium of instruction on processes of educational inclusion extends beyond the scope of this dissertation, the contribution of sociolinguistic context to the findings should not be underestimated, and is briefly touched upon within the Chapter 6 and Chapter 7 Discussions respectively.

The final section of this contextual overview provides additional insight into prevailing patterns in teacher pedagogy. It touches upon the emergence of what is referred to as a form of selective hybridization which is influencing the ways in which teachers teach, and the types of opportunities teachers create for student participation and learning.

2.1.3 Teacher recruitment, support and working lives

As will be further explored in the following review of literature, teachers are powerful education actors. They interpret, negotiate, and revise policies, serving as the ultimate arbitrators of educational inclusion in the classroom. Given the essential role of teachers in defining the nature of education provisioning, this sub-section delves briefly into the pathways of teacher education and support available in Tanzania. To further contextualise the findings presented within this thesis, it then presents an overview of contemporary research investigating the connections between teacher practices and the realities of their working lives.

Tanzania has a long history of struggling to ensure that the supply of available teachers adequately meets demand. Challenges in the recruitment of teachers has resulted in drastic downgrading of recruitment criteria. For candidates who achieve the bare minimum of pass marks on the secondary education leaving examination, joining the growing cadre of student-

teachers is one of only a few career-oriented pathways that remain open to them (Hardman & Dachi, 2012; Namamba & Rao, 2017). Challenges in the retention of teachers have resulted in the use of a series of acceleration programmes throughout the past several decades, further limiting opportunities for pre-service teacher training and support (Hardman, Abd-Kadir, & Tibuhinda, 2012; Sabates et al., 2012; Wedgwood, 2007).

To qualify for a post at the primary level today, teacher recruits require only four years of lower level secondary school followed by an accelerated two-year teaching course (referred to as a 'Grade A' course or 'Certificate' course). To teach within secondary school, prospective teachers must complete Form VI, and are also required to complete an accelerated two-year Diploma programme. Given that the majority of student-teachers have minimal qualifications, often lacking basic English language proficiency and subject area knowledge upon entry, contemporary teacher education programmes tend to prioritise these topics over issues of pedagogy (Hardman & Dachi, 2012; Vavrus, Thomas, & Bartlett, 2011). Regrettably, the use of accelerated teacher education programmes often does not provide sufficient support for student-teachers to fully develop the requisite subject area and linguistic knowledge (Vavrus & Barlett, 2013).

Analysis of research examining the pedagogical knowledge targeted in teacher education programmes indicates a tendency to prepare teachers for idealised conditions rather than preparing them to cope with the realities of typically under-resourced classroom settings. Extant research reveals how the limited pedagogical techniques teachers learn while attending college are particularly challenging if not irrelevant given the material deprivations and large class sizes teachers face upon entry into the classroom (Vavrus & Salema, 2013). In addition, while there has been an increasing emphasis on learner-centred pedagogies (LCP) within teacher education institutions in Tanzania and across the globe, the majority of domestic colleges utilize teaching techniques characterized by direct transmission. As a result, student-teachers are exposed to theoretical knowledge about LCP in particular, and pedagogy more generally, during pre-service education. However, they are rarely provided with opportunities to practice or experience these participatory and potentially more inclusive teaching practices.[7]

---

[7] LCP shares several fundamental features with equitable and inclusive pedagogy, both of which emphasise respect for the rights, background knowledge, and learning experiences of all students.

Contemporary research about teacher pedagogy in Tanzanian secondary schools indicates that teachers utilise interactive approaches to teaching and learning that extend beyond more traditional conceptualisations of 'chalk and talk', fostering opportunities for student participation and teacher-student interaction during teaching and learning (Hardman et al., 2012; Vavrus & Bartlett, 2013). Yet, this somewhat active pedagogy remains constrained by an emphasis on classroom management and a behaviorist orientation toward learning whereby knowledge is treated as something that is transferred from teacher to student (Bartlett & Mogusu, 2013; Vavrus & Bartlett, 2012). The resulting classroom dynamic is one in which pedagogy can be characterised as interactive while also being fundamentally authoritative and rote. Researchers working within the field of educational equity and inclusion pose the question of whether inclusivity can exist in classrooms characterised in this way (Jong, 2014; Schweisfurth, 2015).

Recent research investigating issues of equity and inclusion in Tanzania has revealed a tendency among teachers to express the importance of equity and inclusion for all learners in ways which are largely absent from teacher discourse in other sub-Saharan contexts (Rugambwa & Thomas, 2013; Tao, 2013; Westbrook & Croft, 2015). Westbrook and Croft (2015), in their qualitative analysis of the inclusive practices as described by newly qualified teachers in Tanzania, conclude that teachers display positive attitudes and a sense of responsibility toward all of their students in ways that support and reinforce processes of educational inclusion. Rugambwa and Thomas (2013) also reveal how teachers often acknowledge diversity in students' learning needs and the importance of supporting these needs. However, their findings indicate that despite the use of inclusive discourse about students and teaching, teachers do not adapt their instructional techniques to incorporate such diversity. Their findings indicate that analysis of teachers' attitudes and understandings alone may not reveal how and why teachers do and do not facilitate the creation of pathways for the participation and learning of *all* students in the classroom.

A review of literature examining the working lives of teachers indicates that teacher capacity to implement processes of educational inclusion inside *and/or* outside of the classroom may be influenced by the nature of a variety of material and social constraints. Quoting Amy Gutmann's book *Democratic Education*, Vavrus and Salema (2013) note that 'teachers make compromises in their professional standards for causes that are often entirely beyond their

personal control: too many students, too little preparation time for teaching, too much administrative work, too little money to support their families' (p.77). As they argue, these compromises are likely exacerbated in under-resourced Tanzanian contexts, limiting teacher capacity to engage with and support students' learning needs.

Both Tao (2013) and Vavrus and Salema (2013) demonstrate how economic constraints in particular tend to influence the nature of teacher-student interaction and teachers' pedagogical practices. In her analysis of Tanzanian teacher behaviours, Tao depicts 'being able to help all students learn' as fundamentally constrained, conflicting with a variety of personal needs grounded in economic concerns. She concludes that this capability is often foregone in order to satisfy the need to live in a satisfactory home, be healthy, and take care of family. This finding is corroborated by the research of Vavrus and Salema (2013) and Mkumbo (2014) who describe how low teacher salaries and lack of a supportive teaching environment in Tanzania negatively influence teacher morale and the subsequent quantity and quality of teacher-student interaction. Both sets of research depict how such constraints contribute to a dynamic in which teachers are forced to dedicate time to personal activities (economic or otherwise) rather than preparing for or engaging students in meaningful and inclusive teaching and learning. They demonstrate how teachers' limited engagement with students both inside and outside of the classroom is often a result of very real and personal constraints. The recent illegalization of parental contributions, payments which enabled teachers to supplement their government salaries by remaining after school to provide additional teaching support, has further constrained teacher capacity to engage students and provide support outside of dedicated class time.

The remainder of this chapter explores the empirical and theoretical research examining how inclusivity is conceived of, and how processes of education inclusion are evident within teacher practice. It has been constructed with an awareness that the challenges related to processes of educational inclusion are context specific. Literature is included that elucidates what inclusive pedagogy looks like in contexts in the global North which are characterised by higher levels of resources and learner-centric instruction. It also includes the ideas, experiences and insights of researchers and educationalists working within, and contributing to, the development of education inclusion in classrooms characterised by higher levels of teacher-centric instruction within several communities and countries in the global South.

2.2 Educational inclusion in practice: An overview of the literature

Educational inclusion, a major policy directive adopted by international organisations and national governments, represents a holistic attempt to reduce educational inequities and overcome barriers to student participation and learning in classrooms and countries worldwide. Despite the global adoption of the term *educational inclusion* as a policy response to inequity, barriers to inclusion are highly context specific and multidimensional. Inclusion within any particular setting is differentially influenced by family, community, culture, politics, economics, and aspects of the education system itself, all of which uniquely contribute to student participation and learning. Different interpretations of the term *inclusion*, and different rationales for its uptake, have substantial implications for its implementation both across and within country contexts (Werning et al., 2016). Before examining what inclusion looks like in practice, it is important to consider its historical underpinnings and diffusion across the educational systems of low-income countries. The following sub-section 2.2.1 contextualizes the development of educational inclusion, as both a term and a phenomenon, within countries in the global North. I then describe the dissemination of the term *educational inclusion* across countries in the global South, highlighting some of the challenges to its interpretation and uptake in policy and practice. The final sub-section presents a definition of inclusion as it has been conceptualised within this research.

2.2.1 Contextualizing educational inclusion

The concept of inclusion is steeped in nearly a century of educational tradition emanating from the global North. It is an educational movement developed in response to segregationist approaches to the education of people with disabilities,[8] particularly in the United States and the United Kingdom. While there are a multitude of ways in which a typology of inclusion, and all its varieties, can be established (e.g. Jha, 2007; Pop & Badescu, 2012), Clough and Corbett (2000) provide a particularly useful framework. They ground their exploration of inclusive education through the interpretation of the historical developments and ideologies that have influenced contemporary thinking, demonstrating how changing concepts of educational problems frame the creation of solutions.[9]

---

[8] I have chosen to utilize the term 'people with disabilities' as opposed to 'disabled people' as it appears to be more dominant in international discourse.

[9] The analysis presented by Clough & Corbett (2000) is limited to theories of inclusive education specifically related to people with physical and intellectual disabilities. My research, however, applies a broader

Clough and Corbett (2000) identify several approaches to educational inclusion which emerged from academic literature dating back to the first half of the 20th century. Their descriptive exploration highlights a historical shift in theories of disability and vulnerability, from a focus on deficits located within the learner, to a focus on the context within which the learner is learning. In the United States and the United Kingdom, the psycho-medical model grew in prominence, alongside the development of psychometric testing, as early as the 1940s. This model, which persists to-date, focuses on the identification of 'deficits' within the learner, endorsing medical responses to learning difficulties in an effort to 'prepare the child to adapt to the school' (e.g. Schonell, 1942 as cited in Clough & Corbett, 2000). The sociological position emerged in the 1960s as a critique of the prevailing medical model, resituating educational problems within wider social, economic, and political processes, as opposed to individual deficit (see Barton & Tomlinson, 1984). Influenced by *Bourdieusian* concepts of cultural reproduction and Weberian stratification, and frustrated by fixed notions of intelligence, proponents of the sociological perspective bring the notion of social disadvantage to the forefront (Clough & Corbett, 2000). A focus on the role of curricula in the alienation of particular student groups emerged concomitantly, representing a fundamental shift toward the identification of challenges within the educational process itself. School improvement discourse, which gained traction in the 1980s, furthered the call for a shift in focus away from the need to change learners and towards changing school practices (see Ainscow, 1991; Booth, 1999). Contemporary discourse spans these diverse perspectives, and it is how they are amalgamated to inform both policy and practice that has lasting implications for the extent to which inclusion is cultivated in different educational settings.

From Global North to Global South

In the context of the global education agenda, Education for All (EFA), launched in 1990 by international agencies including UNESCO and the World Bank, set the stage for the international dissemination of the term educational inclusion. EFA catalysed a global commitment to ensuring equitable access to quality education for all children, youth, and adults, transferring concepts of inclusion from the global North to the global South (Tikly, 2016). Educational inclusion, as a policy formulated in response to EFA, was formally

---

formulation, encompassing the participation of all learners, with an emphasis on safeguarding the inclusion of students who are particularly vulnerable to marginalization in schools and classrooms.

introduced into international discourse through the Salamanca Conference on Special Needs Education in 1994 (Pop & Badescu, 2012). The resulting Salamanca Statement, endorsed by 92 governments and 25 international organisations, provides a more explicit definition of Education for *All*, and the marginalized groups who, as Miles & Singal (2010) note, were previously overlooked.

The Dakar Framework for Action, established in 2000, further emphasizes that Education for All can only be achieved through inclusive education (UNESCO, 2002). More than two decades after the Salamanca Statement was signed, the incorporation of the term *inclusive* in Goal four[10] of the Sustainable Development Goals indicates the continued prominence of educational inclusion within international education discourse. Despite consensus on its importance, there has been substantially less agreement on how educational inclusion can be implemented (Ainscow, Booth, & Dyson, 2004; Wilson-Strydom & Okkolin, 2016). This is a result of several interrelated factors, including the challenges inherent in policy transfer, conceptual ambiguity surrounding the term *inclusion*, and the heterogeneous and highly contextualized nature of inequities which educational inclusion aims to address.

Policy transfer. A shared characteristic of the international education initiatives which emerged from EFA is that the global North has dominated in the formulation of education priorities (King, 2004; Tikly, 2016). Given the limited role of low-income country (LIC) governments in formulating the international education agenda, King (2007) and Tikly (2016) question the extent to which the agenda can be meaningfully appropriated within LIC contexts. Tanzania, as a result of the massive economic decline in the 1970s, has been heavily influenced by what Tikly refers to as the 'international education regime' (Tikly, 2016; Vavrus & Seghers, 2009). In Tanzania, contemporary national policy documents identify diverse groups of marginalized learners, and equally diverse strategies for their inclusion, clearly aligning with the ideals established through international education discourse. Rugambwa and Thomas (2013) note that despite the adoption of the term *inclusive* in Tanzanian policy, there is a fundamental lack of commitment among Tanzanian policy makers to its operationalization. Their findings may reflect King and Tikly's concerns about the viability of Northern dominated policy discourse when transferred to the global South.

---

[10] Goal 4 of the Sustainable Development Goals is to "Ensure *inclusive* and quality education for all and promote lifelong learning" (emphasis added).

Ultimately, while it is relatively simple to commit to educational inclusion on paper, it is far more difficult to reconcile the realization of educational inclusion with other national development objectives and prevailing social norms (Armstrong et al., 2011; Tikly, 2016).

Conceptual ambiguities. While global education movements catalysed the widespread adoption of the term *inclusion* within international discourse, the term itself remains conceptually ambiguous (Srivastava et al., 2015). Who within a given population is considered to be in need of inclusion and why? What social changes are called for under the rhetoric of inclusion, and what social norms and political imperatives underpin the need for change? Without a clear articulation of these questions and their answers, Armstrong et al. (2011) note that while social policy may be dominated by the rhetoric of inclusion, 'the panacea of 'inclusion' masks many sins' (p. 31). Ultimately, researchers suggest that the extent to which educational inclusion is promoted is dependent upon how it is conceptualized within the particular political, economic, and cultural contexts in which it is being adapted (Chisholm & Leyendecker, 2008; Miles & Singal, 2010).

Inclusion, as conceptualized by policy makers and practitioners in the global South, is often associated with the integration of students with physical and intellectual disabilities (Bailey, 1997; Rugambwa & Thomas, 2013; Singal, 2005). At the most pragmatic level, Jangira (1995) highlights that unlike the developed systems of the global North, schools in low-resource contexts have no history of parallel educational systems for mainstream and special needs education, and that the conceptual overlap of inclusion and desegregation muddles the operationalization of educational inclusion in the global South. In writing about the global South, Jangira (1995) aptly notes that "In most villages there is only one school" (p. 262), and therefore integrated schools in low-resource systems is not an option, it is an inevitability. To promote relevant inclusive policy and practice, it is therefore essential to disentangle the term *inclusion* from the objective of integration from which it emerged.

Chimedza (2008), in his analysis of inclusive education in Zimbabwe, questions the transferability of terms such as *disability* and *inclusion* originating in more economically developed contexts. His research highlights the need to explicitly adapt the use of such terminology in public policy to the particular exclusionary practices endemic to specific country contexts (Rugambwa & Thomas, 2013). In low-income countries in the global South, entire communities can face exclusionary pressures at a scale and level of complexity that is

fundamentally different from that which has been experienced in countries in the global North. There is therefore a need to specify the meaning of the term inclusion to accommodate its purposes within educational spaces whereby the majority are excluded.

Contextualized nature of inequity. Much of the ambiguity surrounding the operationalization of educational inclusion arises from the nuanced nature of educational inequities, which stem from diverse and interrelated gaps in opportunity (Irvine, 2010). There is growing acknowledgement among research communities, and communities of practice, that pathways toward educational inclusion should not be uniform. Policies and practice must respond to the highly contextualized barriers to inclusion which emerge in different settings, and as a result of different historical, cultural, ideological, and institutional forces (Werning et al., 2016).

In developed country contexts, unidimensional medical models of disability led to the segregation of students with physical and intellectual disabilities, which later prompted the need for educational inclusion (Thomas, 2012). The way in which inclusive education will unfold in low-income contexts stems from substantially different histories, motives and realities (Srivastava, de Boer, & Pijl, 2015). There is a growing body of literature examining educational inclusion in South Africa, wherein the emergence of educational inclusion cannot be understood without conceptualizing it as a political and social response to apartheid. Employing strong human rights discourse, contemporary legislation aims to combat entrenched deficit views and the extreme legacy of racial division. In this context, inclusion, as a macro level policy, is conceived of as both a path toward equitable access to education for previously marginalized learners, and a primary contributor in the creation of a democratic and just society (Lomofsky & Lazarus, 2001). In other countries in sub-Saharan Africa, the operationalization of educational inclusion requires consideration of the colonial legacies, cultural heterogeneity, rapid universalization of primary education, and financial indebtedness characteristic of countries in the global South. Armstrong et. al. (2011) note the material and human deprivation characteristic of LIC contexts, where basic infrastructure is inadequate and human resources are stretched and under supported. They ask in earnest, 'what does inclusive education mean in these sorts of schools?' Ultimately, research across the globe indicates that national policy promoting educational inclusion, without contextualization, is unlikely to yield the intended results (Chisholm & Leyendecker, 2008).

From policy discourse to inclusion in practice

Research consistently demonstrates that while policy dictates that previously marginalized groups of learners be admitted to school, it is the teachers who determine the extent to which access to the curriculum and classroom culture is created (Ainscow et al., 2004; Singal, 2005). Engelbrecht (2006), in her analysis of educational inclusion in South Africa, notes 'enforcing control through policy change at a macro level cannot change human behaviour, values and attitudes' (p. 261). She describes how, despite the ethos promoted by the Government of South Africa, entrenched discriminatory social norms hinder the actualization of such discourse in classroom practice. Engelbrecht suggests that schools need to be at the centre of the process of educational inclusion. Johnstone and Chapman (2009), in their work in Lesotho, note that because there are no external incentives, nor support systems in place to ensure teachers adhere to policy after its initial implementation, teacher commitment to the implementation of inclusive education policy is highly dependent upon personal will. Analysis of extant research highlights the need to engage in in-depth research within schools and classrooms in order to understand the opportunities and constraints to educational inclusion as experienced and perpetuated by the teachers responsible for its implementation.

The approach to educational inclusion applied herein draws on prominent sociological and school improvement discourse, as well as sociocultural theories of learning, focusing on the education system itself and, more specifically, the teachers who assume responsibility for ensuring all students learn. My research conceptualises teachers as integral levers for change, while acknowledging that teachers, and the schools they work within, exist within dynamic systems that influence, and are influenced by, wider societal forces. Teachers are at the centre of the process of educational inclusion, creating pathways for student engagement, determining how cultural norms are adapted to guide classroom dynamics, and dictating the terms of student participation and learning. The remaining literature review explores empirical and theoretical research examining the meaning and operationalisation of inclusion as classroom practice.

2.2.2 Teachers as agents of inclusion

In an analysis of contemporary international education discourse, Schweisfurth (2015) highlights that in an international climate dominated by discussions of measurement and outcomes, the practices that frame student-teacher interactions, and strengthen or suppress

educational inclusion, have fallen to the periphery. Yet, research across the globe consistently demonstrates that teachers' pedagogical practices can promote or inhibit a fair, welcoming, and inclusive classroom climate, having a sustained influence on the lives of students (Ainscow, 2012; Wilson-Strydom & Okkolin, 2016). Despite their integral role in the creation of inclusive learning opportunities, Srivastava, de Boer, and Pijl (2015), in their review of literature, note the paucity of research investigating the role of teachers in educational inclusion in low-income contexts.

Where pedagogical practices do come into focus, educational inclusion bears a striking resemblance to that which is considered high quality instruction in mainstream educational discourse. Quality pedagogy incorporates consideration of the types of activities used to engage students, social dynamics within and beyond the classroom, and teacher support mechanisms, all of which aim to bolster student participation and learning. Inclusion results from a variety of school and classroom based practices, whereby interactions between teachers and students have the power to substantially reduce barriers to participation and learning (Munn & Lloyd, 2005). However, as indicated by Cochran-Smith et al. (2009) in their empirical analysis of the influence of concepts of social justice on teacher education, in classrooms where teachers do internalise the tenets underpinning equity and inclusion, there is a more explicit focus on the knowledge and experience that students bring to the learning experience, and the importance of reaching every learner.

One particularly prominent theme in the literature on educational inclusion, separating it from more generic discussions of quality, is a heightened emphasis on the ways in which teachers engage with, and respond to, the diverse understandings and learning needs of all students. Research examining the implementation of educational inclusion in the classroom emphasises that inclusive pedagogy adapts to learners, rather than expecting the learners to adapt to the instruction (Ainscow et al., 2006; Florian & Spratt, 2013). Researchers in the global North have achieved a reasonable degree of consensus on the importance of a flexible, needs-based approach to inclusive instruction (Ainscow et al., 2006; Clough & Corbett, 2000; Dyson et al., 2002). Sebba and Ainscow (1996) emphasize the importance of improvisation, defined as the capacity to modify plans in response to individual learner needs. They explain a process of 'tinkering' or small adjustments in the instructional process which are informed by student learning and differences therein. In sub-Saharan contexts, Akyeampong, Lussier, Pryor, and Westbrook (2013) describe high quality pedagogy as a problem-solving activity.

Their emphasis on diagnosis as a way of enabling teachers to identify, engage with, and respond to, the challenges that learners face during instruction mirrors the 'tinkering' highlighted as a distinctly inclusive pedagogical process. Similarly, in the Zambian context, Hennessy, Haßler and Hofmann (2016) highlight the importance of developing teacher awareness of how learning needs vary between individuals, emphasising the scaffolding strategies that can enable teachers to support learners in moving beyond current levels of understanding. As is further explored in Chapter 6 and 7, these approaches align with the principles underpinning formative assessment and contingent pedagogy. Within them, the need to diagnose and explicitly respond to the evolving needs of learners is emphasised in order to support student participation and learning, advancing inclusive goals.

Despite consensus on the importance of flexibly responding to students' needs, researchers diverge on the approaches to inclusive pedagogy they endorse, utilizing different means to achieve the shared end of equitable and inclusive participation and learning of *all*. These differences can be framed in terms of what Terzi (2005) refers to as the 'dilemma of difference', a contradiction identified by Warnock (2005) which propels forward an enduring duality between the intention to respond adequately to the needs arising from students' individual differences and the intention to treat all students the same (Terzi, 2005). The following sub-sections explore these two contrasting approaches to inclusive pedagogy, which can be understood through the lens of differentiation and transformability respectively, and which are used to contribute to the creation of a more holistic definition of inclusive pedagogy as applied herein.

Supporting inclusion through differentiation

Research in contexts around the world highlights a tendency among teachers to focus on the learning of the whole class rather than attending to individual differences (e.g. Erickson, 2011; Jukes, 2018). Subban (2006) states "Uniformity, rather than attending to and embracing diversity, dominates the culture of many contemporary classrooms" (p. 938). This has the potential to result in overgeneralizations about student learning, leaving teachers with an inaccurate sense of the effectiveness of the lesson for individual students (Barnhart & van Es, 2015). Given these dynamics, a body of research has developed defining inclusive pedagogy in terms of notions of difference. Within this body of work, researchers and educationalists often focus on differentiation as a primary technique in order to provide

access to the general curriculum to students with diverse capabilities (Waitoller & Artiles, 2013). Such an approach is grounded in an emphasises on individual (i.e. within-child) factors that influence processes of educational inclusion rather than school-based characteristics (Terzi, 2005).

Bešić, Paleczek, Krammer, and Gasteiger-Klicpera (2017), in their analysis of inclusive pedagogy in Austria, identify two types of differentation. The first is differentiation by learning environment, whereby students are separated into different classrooms to learn according to prior achievement (also referred to as tracking or streaming). As a response to inequity and exclusion, tracking has produced mixed results in international education research. Evidence suggests that under certain conditions, the homogenization of classroom composition through ability-based tracking contributes to equitable access to learning opportunities (e.g. Banerjee et al., 2016; Broaded, 1997; Duflo, Dupas, & Kremer, 2011). However, under other conditions, tracking has been proven not only to lack any evidence of academic benefits (Steenbergen-Hu, Makel, & Olszewski-Kubilius, 2016), but to exacerbate inequities (e.g. Bedard & Cho, 2010; Leste, 2005). Ultimately, the research indicates that similar school processes can have extremely different implications for the achievement of equity across different contexts.

The second type of differentiation, referred to as differentiated instruction, refers to processes whereby teachers individualize curricula and instruction in response to student heterogeneity (Tomlinson et al., 2003). More closely aligned with contemporary notions of inclusive pedagogy, instructional differentiation can be implemented with various pedagogical techniques. According to some research strands, it enables teachers to match learning tasks with diverse student needs within a single classroom setting. Peer to peer learning through small, homogenous groups (Bešić et al., 2017; Lou et al., 1996), the use of different materials to individualise learning (Tomlinson et al., 2003), and the adaptation of instructional pace (Rugambwa & Thomas, 2013) are all considered viable techniques supporting differentiated instruction. In contrast with some of the definitions of pedagogical inclusion described at the start of this section, proponents of instructional differentiation highlight the importance of proactive rather than reactive differentiation, planning lessons based on individual learner variance from the outset, rather than planning one-size-fits-all lessons and 'tinkering' as needed (e.g. Schumm & Vaughn, 1992; Tomlinson et al., 2003). Ultimately, proponents of instructional differentiation stress the need to adapt content and instruction in order to address

individual students' needs, maximizing learning opportunities for each student in a classroom.

Several concerns related to ability-based differentiation have emerged alongside its expansion as a pedagogical approach. For example, ability-based tracking has the potential to reinforce deterministic thinking about student ability, with the possibility of stigmatising and alienating groups of learners. This concern is particularly pertinent in instances in which differentiation is premised on the assumption that some children require additional or substantially different support and that such needs are somehow inherent and fixed. In response to this concern, several prominent researchers working within the space of educational inclusion and differentiation note the importance of *conceptualising differentiation as a tool available to all members of a classroom community, extending and enriching learning for all learners and not just for some* (Florian, 2014; Florian & Kershner, 2009; O'Brien & Guiney, 2001). It is this dimension of differentiation that has contributed to the construction of notions of transformability detailed in the following sub-section.

Supporting inclusion through notions of transformability

There is a growing subset of educationalists and researchers who reject the notion of individualized differentiation as a mechanism for inclusion (e.g. Florian, 2014; Hart, Dixon, Drummond, & Mclintyre, 2004). As stated above, the line of reasoning is premised on the belief that differentiation for some students is more likely to result in processes of exclusion, and that instead, inclusive pedagogy must respond to the invariable differences that exist between all learners. Transformability, a concept which emerged as a result of the Learning without Limits project (Hart et al., 2004), provides a means of exploring how it is possible to create inclusive learning environments without relying on ability or attainment as organizing principles for teaching. It is premised on the conviction that all learners can grow and develop under the right conditions. Similar to the approach to differentiation noted by O'Brien and Guiney (2001), individual needs are met through choice of activity for everyone as opposed to differentiation for some. Florian (2014) notes how the concept of transformability shifts the operationalisation of differentiation from an emphasis on separation to an active process of enriching the classroom through activity-based learning, student choice, and dialogue. 'Differentiation becomes a valuable strategy for supporting the learning of everyone when it is used in an 'elastic and creative' way rather than as a

'simplistic linear' means of sorting pupils into more or less able' (Nind, 2005, p. 4. as cited in Florian & Linklater, 2010).

The challenge with the research supporting processes of transformability is that they are often described as a function of individual teacher mastery rather than as a set of methods that can be appropriated by teachers at scale. More work is needed to better define what constitutes good practice, under what conditions, and how these good practices can be cultivated. Additionally, while deterministic thinking has the potential to constrain teacher and student agency, and extant research has largely failed to provide substantial evidence of academic benefits resulting from between-class grouping (Steenbergen-Hu et al., 2016), there are some instances in which ability-based grouping has enabled teachers to better ensure that the needs of individuals and groups of students are met. This is particularly evident in the success of Teaching at the Right Level, whereby ability-based grouping has clearly contributed to improvements in students' participation and learning (Banerjee et al., 2016).

The above discussion of both notions of differentiation and transformability constitute a dilemma within the literature. On one hand, there is an emphasis on the identification of student differences in order to provide appropriate support, which can reinforce deterministic thinking and subsequent stigmatisation. On the other hand, there is an emphasis on supporting all students, which can result in a focus on uniformity rather than a process of embracing diversity and ensuring that individual student needs are met (Terzi, 2005). In order for either approach to effectively support inclusive goals, more attention must be given to the actual pathways provided for student participation and learning in classrooms around the world (Florian & Kershner, 2009). The following section provides an overview of how inclusion is conceptualised herein. It draws on the importance attributed to individual student need as highlighted within instructional differentiation discourse, while simultaneously emphasising the educational process itself and the need for flexible and responsive instruction supportive of all learners as has been highlighted within ideas of transformability. The merging of these perspectives contributes to the construction of a holistic conceptualisation of inclusion in practice.

While there is an overabundance of ways to define educational inclusion, the analysis herein focuses on the ways in which *instructional processes* support the creation of pathways for the participation and learning of *all* students given *the heterogeneity of learners and their diverse and multifaceted learning needs*. This approach draws on the ideas put forward by Terzi (2005), which highlight the need to consider both diversity of individual needs and the school-related factors shaping educational inclusion. In focusing on the education system itself and, more specifically, the teachers who assume responsibility for ensuring all students learn, the conceptualisation of inclusion highlights how teacher practices can support a more meaningful learning experience for all (Ainscow, 1991). As noted by Florian and Kershner (2009), rather than focusing on what needs to be made different or additional for some, emphasis needs to be on challenging 'complacency about what is generally available' so that all learners can experience inclusive opportunities to participate and learn (p. 173). The approach also recognises that students bring different conceptions and capabilities to the classroom which have the potential to shape the learning experience of individual students as well as the class as a whole. This approach demands that inclusive pedagogy not be conceptualised as a static state of being or specific outcome, but rather, as *a perpetual process of increasing participation and decreasing exclusion in teaching and learning by consistently recognizing, valuing, and responding to all students' learning needs* (adapted from Carrington & Robinson, 2004).

As has been demonstrated in the review of literature, inclusive pedagogy can take many forms as a function of the context within which it takes place and the theoretical foundations underpinning its enactment. The focus herein is on educational inclusion as embodying an active process of adaptive instruction that is in response to, and contingent upon, evidence of students' needs. In this way, teacher capacity to enact processes of education inclusion within the classroom are defined by a *capacity to modify processes or plans in response to individual learner needs*. This aligns with Sebba and Ainscow's (1996) process of *'tinkering' and* Akyeampong, Lussier, Pryor, and Westbrook's (2013) *problem-solving*, both of which position teachers to *recognize*, *identify, engage with, and respond to, the opportunities and challenges that emerge on a moment-to-moment basis during instruction.* Such an approach to inclusion prompts questions about what constitutes inclusive practice at a given moment in time and within a particular classroom dynamic.

2.2.3 Classroom discourse as a tool for educational inclusion

In the verbally interactive context of the classroom, processes of social and academic inclusion or exclusion are largely fostered discursively. Teachers employ standard ways of engaging with their students, leveraging discursive routines marked by particular social and linguistic patterns which define the opportunities available for students to engage and learn. Through their discursive acts, teachers act as gatekeepers. They define and control which knowledge will be valued and dictate which student contributions will be validated and which will be ignored or discouraged. Drawing on sociocultural views of learning, the language that teachers rely upon, and the types of classroom discourse they facilitate serve as vital tools which influence the character of students' participation and learning (Edwards & Mercer, 1987; Florian & Kershner, 2009; Nystrand, 1997).

Dialogic discourse

The creation of inclusive learning opportunities is often associated with interactional patterns characterised as dialogic (e.g. Florian & Black-Hawkins, 2011; Florian & Kershner, 2009; Jha, 2002). Dialogic classroom discourse is typically described as open to, and respectful of, a diversity of perspectives. Phillipson and Wegerif (2016), in their description of dialogic education, note that 'to understand any concept means to distinguish it from other concepts, and that requires holding different points of view together in thought, and contrasting them' (p. 2). Within discourse characterised as dialogic, a teacher works with students to acknowledge different views, and students' points of view are considered alongside, or in addition to, the canonical knowledge prescribed within a given syllabus (Scott, Mortimer, & Aguiar, 2006).

Extant research has demonstrated how openness to student-generated ideas is essential for both demonstrating the value attributed to student perspectives, and for advancing students' productive engagement with core concepts across the curriculum. Ruthven and Hofmann (2016) reveal how dialogic approaches to interaction have the potential to empower students to take more active roles in shaping the agenda of classroom discourse. Nystrand (1997) describes how, through dialogic instruction characterized by the uptake of student ideas, and the use of authentic questions by teachers, student understandings become better elaborated, supporting meaningful student access to the curriculum. Alexander (2008) describes how the

reciprocal and cumulative nature of dialogic teaching has the power to stimulate and extend student thinking, advancing student learning and understanding while enabling teachers to more precisely engage in processes of formative assessment and diagnosis. This body of research indicates that the way in which classroom discourse and knowledge is managed has substantial implications for teacher capacity to recognize, value, and be responsive to students' diverse learning needs. While researchers converge around the notion that classroom discourse characterised as dialogic is supportive of inclusive goals, as is discussed in the following sub-section, such discourse is often absent from documented practices in classrooms around the globe.

Classroom discourse: Evidence from the global South

Akyeampong, Lussier, Pryor, and Westbrook (2013), in their research in sub-Saharan contexts, describe the tendency among teachers to engage in formulaic approaches to teaching and learning reliant on a prescribed formula for the presentation of content. Their research indicates that these dynamics contribute to low quality discourse between teacher and student, preventing teachers from engaging with, and responding to, student-generated ideas. Hornberger and Chick (2001), in their analysis of classroom discourse in Peruvian and South African classrooms, emphasize how teachers' discursive practices provide students with equal opportunities to speak, but do not function to support students' sustained access to the curriculum. Their research indicates that teachers and students engage in what they refer to as 'safe-talk,' a form of interactional face-saving in which teachers and students preserve their dignity by encouraging and accepting restricted student responses. This practice constitutes a palpable barrier to the development of more dialogic discourse. By enabling students to conceal that which they do not know, teachers limit their own capacity to generate evidence of, and be responsive to, students' perspectives and learning needs.

In Tanzania, Hardman et. al. (2012) note that Tanzanian teachers often create space for student talk, either in choral fashion or individually; however, this is most often realized in a form of traditional drilling, closed questioning, and telling, limiting the development of genuine dialogue. The resulting discursive patterns observed align with the three-part Initiation-Response-Followup (I-R-F) participation structure initially identified by Sinclair and Coulthard (1975). The typical triadic pattern references a communicative process in which the teacher Initiates (I) an interaction, a student provides a Response (R), and the

teacher then provides Followup (F). The implications of the I-R-F structure in relation to education inclusion are further explored in the final sub-section of this literature review.

I-R-F as a discursive structure and the processes which shape inclusion in the classroom

In the literature examining patterns of discourse in the classroom, the I-R-F pattern and related subtypes are by far the most prevalent. This is reflected in the review of empirical research on classroom discourse conducted by Howe and Abedin (2013), whereby the I-R-F is the only participation structure addressed across multiple studies dated between 1972 and 2011. Associated with the more authoritative forms of discourse, the I-R-F pattern is often criticized for limiting dialogue between teacher and students.

Researchers today continue to develop methods to describe and analyse traditional I-R-F patterns, and variations therein, in their attempts to build, clarify and strengthen discourse-based theories of teaching and learning. Recent research has applied a variety of analytical techniques in order to relate discourse patterns to several qualities of classroom teaching and learning, including: The creation and maintenance of classroom norms (Cobb, Boufi, McClain, & Whitenack, 1997; Hofmann & Ruthven, 2018), student access to the curriculum (Chafi & Elkhouzai, 2014; Koole, 2012; Pierson, 2008), and issues of student participation and equity (Hornberger & Chick, 2001; Koole, 2003; Turner, Dominguez, Maldonado, & Empson, 2013; Turner & Patrick, 2004). Each of these qualities contributes to the ways in which teachers are enabled or constrained in the operationalisation of processes of education inclusion. As noted by Alexander et. al. (2001) and Ruthven and Hofmann (2016) pedagogical potential lay less in the pattern of organization than in the character of the interaction which it encourages.

One core component of the I-R-F process which is hypothesised herein to influence its efficacy in relation to processes of educational inclusion is the way in which students are allocated turns to Respond to teacher-posed Initiations. As noted by Burns and Myhill (2004) and Dallimore, Hertenstein, and Platt (2013), despite the importance of student participation in processes of educational inclusion, in most classrooms, not all students are equally likely to participate. Often, it is those who are willing to participate that are ultimately included, whereas those who are less keen to do so are more likely to become excluded (Jukes & Gabrieli, 2018; Shepherd, 2014). Given these realities, as is examined in Chapter 4, analysis

of teachers' turn-allocation procedures and subsequent patterns of student participation offers an important opportunity to consider how teachers are constrained or enabled in the equitable and inclusive promotion of student voice.

While creating pathways for the inclusion of a diversity of student voices is essential, it is only one step in the process of educational inclusion. A crucial aspect of teacher work in inclusive classrooms is the establishment of a detailed understanding of the difficulties that students experience in the learning process. Drawing on the notion of zone of proximal development (ZPD), extant research indicates that the questions that teachers ask, and the insight that they are able to generate into students' (mis)conceptions, serve as an essential stepping stone in processes of educational inclusion. As noted by Edwards and Mercer (1987), teacher questions 'function as discursive devices through which the teacher is able to keep a continual check on the pupil's understandings, to ensure that various concepts, information or terms or references are jointly understood' (p. 132). As is further explored in Chapter 5, the evidence that teachers attempt to draw out and accurately recognize through their Initiating moves serve as a vital input in the diagnostic process. It frames teacher capacity to determine students' competency levels and to identify potential misunderstandings on a moment-to-moment basis throughout the instructional process (Edwards & Mercer, 1987b; Hargreaves, 1984; Ruiz-Primo, 2011; van de Pol, Volman, & Beishuizen, 2010).

A primary difference across the subset of literature investigating I-R-F lies in the final F move, which may be referred to in non-specific terms as Followup or Feedback (Sinclair & Coulthard, 1975), but which has been revised in subsequent research to emphasise more specific acts, including Evaluation (Mehan, 1979), Probing or Reinforcement (Kennedy, 2016), or Response (Scott et al., 2006). Analysis of the qualities of teachers' followup moves creates space to capture the ways in which teachers communicate a sense of inclusion, and promote or hinder access to the curriculum, as instantiated in the ways in which they respond to student contributions during whole class instruction. As is explored in Chapter 6, analysis of teacher followup moves creates space for a consideration of the ways in which teacher mediation supports or suppresses the development of a classroom climate characterised by respect and trust, and one within which students are enabled to participate and learn.

Wells (1999) and Mercer and Littleton (2007) highlight that particular discursive structures are not intrinsically good nor bad. Rather, it is the ways in which a particular pattern functions to facilitate student participation and learning that requires consideration. Yet, what inclusive practices in more didactic discursive environments actually look like, and how they function in relation to processes of educational inclusion, remains elusive. Jha (2002) suggests that the typical authoritative style of instruction typically associated with the I-R-F discursive pattern can be supportive of inclusive goals. Through a consideration of teacher questioning strategies, and the ways in which teachers react to student responses, Jha indicates, though does not clarify how, teachers can position themselves to foster processes of educational inclusion even when embedded within more traditional and authoritative discursive structures. This notion opens the door to the need to explore the ways in which more authoritative forms of discourse embedded within interactive I-R-F structures can (and cannot) encourage processes of educational inclusion.

As noted at the outset of this section, there is a need to better elucidate what processes of educational inclusion and exclusion look like in classrooms in contexts in the global South. Studies of educational inclusion converge around questions of what processes of educational inclusion can look like in classrooms characterised by direct-transmission style instruction and discourse characterised as authoritative yet interactive. When considering I-R-F as an organizing principle of discourse, rather than a pedagogical impediment, I-R-F provides clear pathways for further inquiry. Within the I-R-F discursive structure, the teacher must determine how opportunities for student participation are initiated, how the questions posed are engineered, by whom, and to what end, and when and how the information gathered through student responses is used to inform the next stages of instruction. It is contended herein that more in-depth and contextualized research is needed in order to better situate processes of educational inclusion within this type of discursive dynamic as it is operationalised in Tanzanian classrooms.

Regardless of particular practice, inclusive pedagogy requires that classrooms are organized in a way whereby teachers respectfully acknowledge learners, their backgrounds, and their learning needs, in order to build appropriate discourse and supportive classroom environments which facilitate participation and learning for all (Jha, 2007; Razer, Friedman, & Warshofsky, 2013). This review of literature highlights the pivotal role of classroom discourse in processes of educational inclusion, demonstrating the elusive nature of inclusion

in practice, particularly in under-researched contexts in the global South. This dissertation was conceived of in order to contribute to this field of research, creating a contextualised analysis of how inclusion and exclusion unfold given the realities of classroom life in contexts beyond the global North.

Chapter 3. Methodology

Huwezi kujua ukiwezacho mpaka umejaribu. Jaribu – uone.
You cannot know what you can do until you have tried. Try – and you see.
(Swahili Proverb)

There is growing acknowledgement among research communities, and communities of practice, that moves towards inclusion are highly context-specific. Policies and interventions must respond to the highly contextualized barriers to inclusion which emerge in different settings, and as a result of particular historical, socio-cultural, ideological, and institutional forces. Yet, contemporary research on inclusion suffers from a paucity of contextualized, empirical and in-depth data evaluating the complexities associated with educational inclusion in schools and countries, particularly in the global South (Dyson et al., 2002; Pop & Badescu, 2012). When educational inclusion is examined, it is often explored as an ideology rather than as a lived experience (Haug, 2010), limiting the applicability of research findings.

The research objective guiding my work is the establishment of an explanatory framework for how teachers are enabled or constrained in the operationalisation of educational inclusion in Tanzanian Ordinary Level secondary school classrooms. The specific questions guiding my research have become increasingly narrow as a function of the findings which emerged at the outset of the data analysis process. This narrowing reflects a fundamental aspect of the research design: An emphasis on the generation of research that is contextually attuned and open to potentially unforeseen foci necessary to establish a data-driven explanation. As is discussed in Section 3.6, the initial questions guiding the research incorporated consideration of processes of inclusion in the classroom without specifying the particularities of pedagogical or discursive structure. The initial analysis rapidly revealed the predominance of teacher-fronted whole class instruction in which classroom discourse, and, more specifically, an I-R-F pattern of interaction, serves as the primary mechanism for fostering or constraining processes of inclusion. As a result of the analytical process, research became focused on the nature of classroom-based discourse. More specifically, the research presented herein provides an in-depth and nuanced exploration of the ways in which patterns of classroom discourse shape teacher capacity to foster social and academic inclusion or exclusion.[11]

---

[11] Notably, the research methods employed also sought to generate insight into the ways in which teachers conceptualise the needs of their learners. These questions were intended to contribute to the development of a more holistic understanding of the beliefs underpinning teachers' pedagogical choices. However, in order to ensure an in-depth and nuanced qualitative analysis of teacher practice, questions related to teacher beliefs were largely omitted, opening the door to future research.

The resulting questions underpinning this research include:

1. What recurrent patterns of behaviour (demi-regularities),[12] and deviations therein, can be identified within the ways in which teachers distribute opportunities for student-generated talk during interactive whole class instruction? What are the implications of these patterns in terms of teacher capacity to foster inclusive patterns of participation? What does an analysis of these patterns, and deviations therein, reveal in terms of the generative mechanisms[13] underpinning them?

2. What evidence of student participation and learning are teachers able to draw out through their questioning practices? Under what conditions do teacher-posed questions influence teacher capacity to foster processes of educational inclusion? Why?

3. What recurrent patterns of behaviour can be identified within the ways in which teachers respond to student contributions? What are the implications of these patterns in terms of how teachers are attending and responding to cognitive and affective dimensions of student learning? What pedagogic and/or social purposes can be identified in patterns of behaviour defined by lower or moderate levels of teacher responsiveness?

It is through an in-depth and qualitative analysis of these elements of classroom discourse that it becomes more possible to unravel how teachers are supported or constrained in the operationalisation of educational inclusion given the confines of their current practices.

The following section provides an overview of the philosophical and theoretical orientation underpinning my research. The sections thereafter describe the research design and sampling frame, including a descriptive analysis of how teaching and learning activities, and the resulting classroom discourse, are typically structured. Data collection methods, instrument preparation and piloting, and analysis are then detailed. The final section provides insight into several aspects of the research process, including research limitations, risks, ethical considerations, issues related to researcher positionality, and the real challenges associated with doing research in developing country contexts. These final points regarding the research process are further explored in the Chapter 7 discussion as well.

---

[12] In accordance with the terminology used in Critical Realism, the term 'demi-regularities' refers to tendencies or rough trends in empirical data which can be identified through processes of qualitative data coding (Fletcher, 2017).

[13] In accordance with the terminology used in Critical Realism, the term 'generative mechanisms' refers to those tendencies or potentialities which exist within the unobservable realm of the real and which, under the right conditions, produce the experiences observed within the domain of the empirical (Blom & Morén, 2011).

3.1 Philosophical underpinnings

Drawing on the advantages of both empiricism and interpretivism, my research is shaped by a critical realist (CR) approach to both what is real (ontological realism) and what is knowable (epistemological relativism). CR emerged as a philosophical critique of both the interpretivist assumption that reality is only a product of our social construction of knowledge, and the positivist notion of knowledge of reality as only that which can be directly observed and measured (Tao, 2013). As such, CR creates space for a nuanced exploration of the underlying mechanisms that generate the human experience.

One conceptual point of entry into the advantages of CR in education research is the distinction between open versus closed systems. Whereas a laboratory is a closed system in which conditions can be controlled, schools are inherently open, replete with social complexities that influence and underpin how they function. Within these contexts, it is typically not possible to isolate the effects of specific causal mechanisms (Tikly, 2015). The complexities inherent in open systems lead critical realists to develop rich and multifaceted explanatory frameworks, investigating the many "entities" and their interactions that cause observable events (P. K. Edwards, O'Mahoney, & Vincent, 2014).

Critical realists interpret causation by differentiating between three layers of reality: the empirical, the actual, and the real (See Figure 3.2 in Section 3.7.3). The empirical encapsulates observable experiences and perceptions, such as the discursive strategies teachers utilise in order to allocate turns at talk during classroom instruction. The actual refers to events and objects which impact the empirical, such as the visible or nonvisible ways in which the allocation of turns promotes or hinders particular aspects of the instructional process (i.e. curricular progression versus equitable opportunities for participation). It is the non-observable realm of the real, the causal mechanisms that generate the actual and empirical, which form the basis for the explanatory frameworks pursued by the critical realist. Reasons can be viewed as causal mechanisms, which ". . .are beliefs rooted in the practical interests of life. And a person's essence consists just in what she is most fundamentally disposed to do (or become)" (Bhaskar, 1979, p. 123). Social norms and values, and aspects of school culture and practice, can serve as generative mechanisms capable of producing the patterns of actual and empirical events of interest. As Sayer (2000) notes, "explanation depends on identifying causal mechanisms and how they work and discovering

if they have been activated and under what conditions" (14). Ultimately, an approach grounded in CR enables consideration of how the object of empirical study emerges from, and is part of, a dynamic and largely unobservable system.

3.2 Theoretical underpinnings

This research draws on sociocultural theories of teaching and learning, creating space to explore how the interactional contexts that teachers facilitate within Tanzanian secondary school classrooms enable or constrain processes of educational inclusion. Sociocultural theories, which stem from the thinking of Russian psychologist Lev Vygotsky (e.g. Vygotsky, 1962, 1978), highlight the intrinsically social and communicative nature of learning. While not necessarily reflecting a unified field, sociocultural scholarship today is expansive. Within the field of education, it has been leveraged in order to examine second language acquisition (Lantolf, 2000), curricular development (Jaramillo, 1996), and theories of motivation (Mcinemey, Walker, & Liem, 2011). There are several essential aspects of sociocultural theory which make it particularly suitable not only as a way to understand the process of teaching and learning, but as a framework used to inform the methodology underpinning this research.

Sociocultural theories of teaching and learning are underpinned by an emphasis on the social nature of learning, paving the way for a consideration of how teacher-student interaction contributes to processes of exclusion and inclusion in the classroom. The Vygotskian strand of sociocultural theory is premised on the notion of learning not as an isolated event located within an individual learner, but rather, as an integrated process embedded within, and emergent from, social interaction (Dixon & Verenikina, 2007; Kozulin, Gindis, Ageyev, & Miller, 2003). Applying a sociocultural perspective makes it possible to situate processes of educational inclusion within sociological and school improvement discourse. It is through this line of thinking that one can theoretically shift the focus within the field of educational inclusion from deficits located within an individual learner to the social and interactional processes which foster or constrain inclusion. As a result, it creates space to examine processes of inclusion and exclusion through an exploration of interactional classroom data rather than through the lens of the student alone. It supports the need to analyse interactions between the teacher and individual students, and between the teacher and the class as a whole, in terms of student participation, and the qualities of student-teacher interaction.

As the hallmark of interaction, language serves as a mediational tool and defining feature of sociocultural theories of learning. Language both defines, and has the potential to transform, classroom dynamics in general, and processes of inclusion in particular (Florian & Kershner, 2009; Pierson, 2008; Vygotsky, 1986). As noted by Mercer and Littleton (2007), "language is a teacher's main pedagogic tool" (p. 14). A consideration of the qualities of classroom discourse enable an examination of the ways in which the use of language defines the "development and exchange of knowledge," considering such questions as whose ideas set the agenda of classroom discourse, whose ideas are valued, which ideas are included, developed, or abandoned, and why (Ruthven & Hofmann, 2016). In this way, it becomes possible to explore how classroom-based forms of discourse enable or prevent students from "taking up space" in the classroom (Van Es, Hand, & Mercado, 2017) and the ways in which students can become more or less included in the classroom community. A Vygotskian approach to an analysis of educational inclusion enables a move away from the limitations imposed by a focus on abilities or disabilities of individual teachers and students, and toward a consideration of the power of classroom discourse as a mechanism for inclusion or exclusion.

As is further detailed in Section 3.7.3, the research design applied herein leverages discourse analysis in order to systemically uncover how the language used to interact in the classroom contributes to or constrains processes of educational inclusion. Drawing on the Vygotskian conception of the importance of social interaction and the nature of language allows for an in-depth investigation of the forms of discourse teachers draw upon, and how these shape teacher capacity to recognize, show value for, and be responsive given the evidence of student needs generated through student responses. The application of this theory provides support for the investigation of the relationship between cognitive, social and psychological dimensions of discourse intrinsic to processes of inclusion. The following section provides an overview of the qualitative research design established in order to examine regularities[14] in the organization of everyday classroom talk, and deviations therein through the lens of inclusion.

---

[14] In accordance with the terminology used in Critical Realism, the term 'regularities' refers to tendencies or rough trends in empirical data which can be identified through processes of qualitative data coding (Fletcher, 2017).

3.3 Research design

My research was designed in order to establish an explanatory framework for the conditions under which inclusivity is enabled or constrained in Tanzanian secondary school classrooms. More specifically, it examines how the discursive strategies that teachers use can support or restrict participation, and how they can reduce or create barriers to learning for all students. While there are a variety of factors inside and outside of the classroom which need to be taken into consideration when examining processes of education inclusion, the focus herein is on the ways in which teacher discourse, and the subsequent nature of teacher-student interaction, shape and guide the student experience. To advance knowledge in this area, the research design includes a series of comparative small-scale in-depth studies of individual and group dynamics within the classroom setting (Tight, 2010).

Unlike the case study methodology proposed by Stake (1995) and Yin (1994), who prioritize a clearly defined 'case' from the outset, the approach utilised herein is informed by the work of Bartlett & Vavrus (2017). According to their approach, research is commenced with an unbounded perspective of the layered CR world, and an openness to the potential foci necessary to establish a coherent explanation. This approach allowed for a more fluid notion of context and comparison, as opposed to the hermetically sealing off of physical cases from the emergent influences shaping them. Utilizing this broader conception, and engaging in iterative and in-depth research, enabled the identification of sequences of causal mechanisms at work (Edwards et al., 2014). In accordance with the typology established by Vavrus and Bartlett (2013), I utilized homologous logic for initial site selection focused on individual lessons, defined periods of time focused on the participation of particular stakeholder groups (teacher and students) and organised around specific learning objectives and activities. While the focus had initially been on teachers, stakeholders who hold corresponding positions within school settings, in order to avoid the pitfalls of assigning a static category to each teacher in the subsample, forms of teacher discourse, as observed in particular lessons, rather than the teachers themselves, became the focus of inquiry. As is further detailed in Chapter 4, this approach allowed for the possibility that a single teacher may draw on more than one discourse, or shift from one discourse to another across time (Barrett, 2008).

CR makes methodological decisions as a function of "the nature of the object of study and what one wants to learn about it" (Sayer, 2000, p. 19). My research design relied on

qualitative data to develop a holistic and contextualized hypothesis regarding the factors influencing processes of educational inclusion in the classroom. The point of entry within my qualitative analysis is that exploring and unpacking classroom discourse provides integral insight into questions of 'how', 'why', and 'under what conditions' a particular phenomenon may emerge (Skovdal & Cornish, 2015). The qualitative approach allowed for a move away from a priori variables and hypothesized relationships derived from scholars in the global North. It created a more iterative, process-oriented design valued in CR and necessary as a point of entry in less thoroughly researched contexts of the global South. In some instances, I employed mixed data analysis strategies, converting some of the qualitative data into numerical codes that could undergo basic descriptive statistical analysis in order to better ground the meaning derived from qualitative data (Tashakkori & Teddlie, 1998).

The collection of qualitative data enabled me to capture what is real, rather than what I, as the researcher, expect, know, or am familiar with (Delamont, 2012). However, a clear understanding of extant theory and related constructs proved invaluable in orienting the data collection and initial analysis processes respectively. Ultimately, the qualitative research design allowed for the disruption of taken for granted notions of the empirical, unsettling dichotomous and static categories in order to better unmask the causal mechanisms that make up the Critical Realist's realm of the real. Thus, my research design involved an emergent and evolving approach in order to present a holistic picture of both that which is seen, and that which underpins it, through the leveraging of abductive and retroductive logic (see Section 3.7.3 for additional information about these processes). Notably, the objective of the research, in accordance with the CR position, is not to achieve statistical generalizability, but rather, generalization through the identification of empirical 'demi-regularities' and 'mechanistic explanations' that contribute to theoretical clarity (Tsang, 2014).

Figure 3.1 below illustrates the sequence of activities undertaken to complete this research project. The timeline can be viewed in Appendix 2.
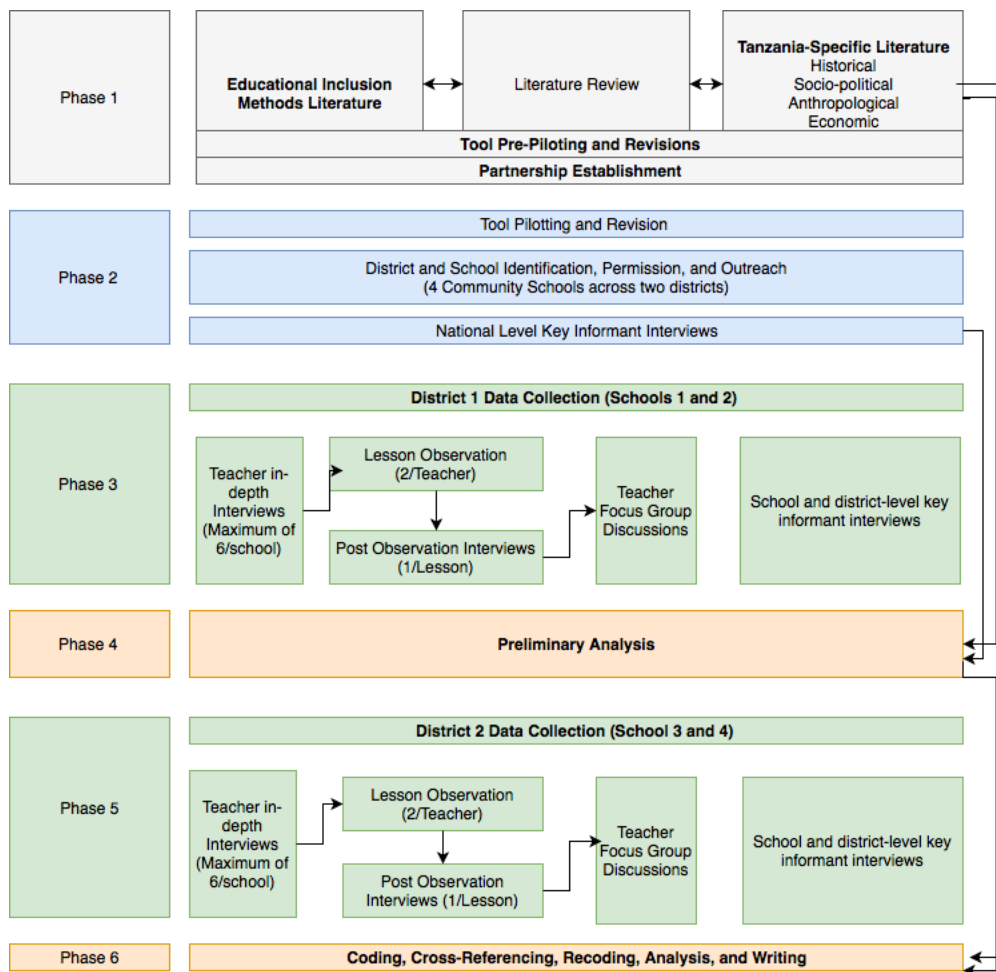
Figure 3.1 Research design

Phase 1, completed in September 2017, included three primary processes: (1) The literature review, whereby, as indicated by the arrow, I returned to the literature throughout the research process. (2) Pre-pilot activities conducted from April to May, 2017. (3) Partnership development with Camfed, as an international partner, and the University of Dar es Salaam, as the local partner were completed in September of 2017 and provided the necessary pathways to school-level access.

Phase 2, completed in October 2017, included (1) Tool piloting and revisions described in Section 3.5.6. (2) Sample selection and permission are described in Section 3.3. (3) National level key informant interviews commenced in Phase 2 and continued in Phase 4, enabling me to gain insight from key stakeholders at the start and midpoint of research activities.

Phase 3 and Phase 5. Active engagement in data collection commenced in January, 2018 with the first two schools consecutively in Phase 3. Data collection in the second two schools

was commenced in Phase 5, which began in March, 2018. Three consecutive weeks (15 school days) were allotted per school. Actual time spent varied by school.

Phase 4 and Phase 6. Engagement in data analysis was completed with the objective of moving beyond local context in order to identify and examine wider patterns and irregularities within the collected data. CR is predicated on the capacity of researchers to examine the causal mechanisms underpinning actual events and empirical observations. Time was therefore built into my research design to reflexively analyse preliminary findings and make necessary adjustments to the conceptual framework and methods during Phase 4. This contributed to substantial changes in my research focus as is further discussed in Section 3.4.

3.4 Sample selection and characteristics

My research is embedded within Camfed Tanzania's partner schools, and, as is discussed in Section 3.8, has been influenced by the Camfed programme. In addition to financial provisioning for marginalized girls, Camfed works to foster awareness among community members about the importance of providing socioemotional support to marginalized students across the community. This influence has been taken into consideration throughout data collection and analysis. Due to the scope of Camfed's work, which prioritises the implementation of projects in partnership with Government, locating my research within their schools bolsters my capacity to ensure my findings contribute in a tangible way to policy and practice in the future. In preparation for data collection, my collaboration with Camfed also enabled me to access an extensive amount of relevant data compiled by Camfed about their partner schools, strengthening my capacity to make data-driven sampling decisions, as is presented within the following sub-sections.

3.4.1 Sampling decisions at the district and school level

The study was based in Handeni and Morogoro Rural, two rural districts located in north-eastern and central Tanzania respectively. Because schools in rural districts have been historically marginalised, rural settings were prioritised in order to generate insight into the experience of the marginalised majority. Because over 66% of the population in Tanzania resides in rural locations (UNESCO, 2019), rural settings also offered an opportunity to contribute to extant research by analysing questions of inclusion and equity from the vantage point of the ordinary. In addition, these districts were selected as a function of considerations

of project feasibility. Camfed Tanzania, an organization with whom I had recently worked, has well-established programming across both districts. As a result of my contributions to their research agenda through my collaboration with the REAL Centre at the University of Cambridge Faculty of Education (https://www.educ.cam.ac.uk/centres/real/), I had the opportunity to develop working relationships with the district leaders, a necessary support system in order to gain access to participating schools. In addition, both districts were within reasonable driving distance from my home in Dar es Salaam, enabling me to reduce the amount of resources required for local transport and to maximise the amount of time spent within each district respectively.

Regarding school selection, Tanzanian government community schools supported by Camfed form the basis of my sampling frame. These are the most common type of Ordinary Level secondary school, and exhibit similar material deprivation, achievement patterns and student heterogeneity (Sumra, 2017). Ordinary Level secondary school is of particular interest as a result of the recent policy directive which removed all fees for this level of education. As was discussed in Chapter 2, the removal of fees through Circular 5 was intended to increase access for previously excluded student populations, creating new opportunities to examine processes of inclusion in classroom settings with greater numbers of previously excluded populations.

The majority of sampling frames utilized in studies of educational inclusion are limited to schools that are self-proclaimed to be inclusive (e.g., Florian & Black-Hawkins, 2011; Hofman & Kilimo, 2014; Johnstone & Chapman, 2009). Departing from that tradition, I utilized proxy indicators of inclusion with the aim of establishing a contrastive line of inquiry. In this instance, it was hypothesised that a contrastive approach would create more space to identify the potentially unforeseen and context-specific characteristics of inclusive pedagogy by contrast with less inclusive practices, and to identify those practices which may be of less consequence than anticipated.[15] Camfed has collected a substantial amount of school data, including dropout and attendance rates, data on student wellbeing, and data on numbers of vulnerable students. Findings from the student wellbeing and attitudes survey were utilised as the first criterion for school selection. Three items were selected from the

---

[15] For instance, it became apparent that the use of teacher-centric instruction and a reliance on oral questioning and answering is utilized almost ubiquitously across schools and classrooms, and therefore these teaching approaches unto themselves could not account for differences in inclusivity.

midline student questionnaire, including: 'Most teachers treat the pupils with respect,' 'pupils opinions are listened to,' and 'most teachers help pupils who have difficulty with their work.' Students responded on a three-point scale: Agree/not sure/disagree. Together, these three items provide insight into the extent to which students perceive their teachers to be engaging in processes of educational inclusion. Given the ambiguity of 'not sure' this anchor was omitted from analysis. Student responses were them tabulated using the crosstab function on SPSS[16] and the total proportion of students from each school who selected disagree as a response anchor to one or more of the questions was calculated. The resulting proportions were then divided into quintiles. The pool of schools to be considered was then reduced to only those schools within the highest and lowest quintiles in each district.[17]

Dropout rates were then taken into consideration. The review of literature revealed that student dropout is a viable proxy for inclusivity in developed country contexts (Werning et al., 2016). However, in the Tanzanian context, there are a variety of formidable barriers to retention which undermine this correlation. These factors stem from geographic and familial complications not endemic to developed country contexts; and therefore, I considered this variable only after considering student responses on the questionnaire. I divided school dropout rates into terciles and considered schools with high and low proportions of student disagreement on the questionnaire against dropout. In identifying my first choice for schools that may be characterised by more exclusive practices, I prioritized schools within the third or fourth quintile on the questionnaire who were also identified as having high dropout rates. For schools characterised by inclusive practices, I prioritized those falling within the first or second quintile on the questionnaire who also were within the first quintile in the dropout analysis. These criteria for the establishment of the sampling frame facilitated a contrastive line of inquiry (Edwards et al., 2014).

While I had initially prioritized progress in achievement as measured by the English and maths assessments, Vavrus and Bartlett (2013) note that the national examinations measure basic fact recall and standardized correct responses, and therefore may disincentivize teachers' use of more inclusive pedagogies. As a result of this observation, progress was not

---

[16] Due to the dichotomous nature of the scale, the viability of an exploratory factor analysis was extremely limited, and therefore this methodology was not utilized.
[17] Those with a high proportion of students who disagreed with one or more statements indicated a lack of perceived inclusion. Those with a low proportion of students who disagreed with one or more statements indicated higher levels of perceived inclusivity.

factored into the establishment of the sampling frame. To ensure relevant findings, schools with atypical characteristics, such as adjoining Advanced Level facilities, were immediately excluded from the sample.

Once the initial group of potential schools was established, I engaged Camfed field workers as key informants. While it was assumed that their extensive knowledge of the schools within their districts would provide additional insight into which schools are perceived to be more or less inclusive, their knowledge did not extend beyond administrative issues. Therefore, their contributions were ultimately limited to the identification of schools within reasonable distance to main roads and with the necessary infrastructure to support data collection activities (e.g. accommodation options with access to electricity.) Finally, I coordinated with the local government authorities in order to establish formal permission to engage the specific schools identified. Soliciting permission from local leaders demonstrated my respect toward the community (Vissandjee et al., 2002) and simultaneously helped to assure local participants that they were 'inculpable in cooperating with me' (Jakobsen, 2012).

3.4.2 Sampling decisions at the teacher and lesson level

Regarding sample selection within each of the four schools, I selected Form I and Form III as the focal cohorts. Form I was prioritised in order to minimize the limitations imposed by student dropout, which most often takes place after the Form II year (Prime Ministers Office, 2015). The inclusion of Form III enabled a consideration of the official streaming policy whereby students are streamed into either Science or Arts cohorts. This decision was made as a function of my pilot findings, which indicated that some teachers maintained lower expectations for students in the Arts cohort. This focus therefore allowed for consideration of if and how differences in teacher expectations interacted with the ways in which teachers provided different students with opportunities to participate and learn. In addition, these cohorts were prioritised because neither is responsible for national examinations at the end of the academic year, and therefore, my activities would be less likely to interfere with examination preparation.

At the secondary school level, teachers are subject area specialists. Grossman & Stodolsky (1994) note that subject matter serves as a filter through which teachers interact with students. I prioritized in-depth work with English, maths, and history teachers, as all three are

core and compulsory subjects. I prioritised English because of the foundational role it plays in enabling student access to content across the curriculum. Maths was prioritised because, as Fuller, Hua, and Snyder (1994) note, maths is largely a foreign form of knowledge for which the majority of students do not have access outside of school walls, thereby limiting the influence of students' home environment on their classroom learning and participation. Finally, I incorporated history because it often maintains a lower status within the academic curriculum (Grossman & Stodolsky, 1994), and therefore provided a unique vantage point when contrasted with English and maths. This combination of subject areas allowed for a move beyond the idiosyncrasies of a particular subject area in the analysis of teacher discourse.

The sample size per school was relatively consistent, with a total of twenty-three teachers participating in in-depth research activities. In-depth research activities included lesson observations, one-on-one interviews, and stimulated recall interviews (See Section 3.5). At three of the four schools, the sample included a total of 6 teachers respectively. At the forth school, the history teacher was responsible for teaching both Form I and Form III, and therefore only five teachers were engaged at this school. Teacher age ranged from 26 years old to 59 years old, with an average age of 33 years and an SD of 7.36. Of the 23 teachers who participated in in-depth research activities, 17 of the teachers were male and six of the teachers were female. Twenty of the teachers had obtained a Bachelor's Degree in Education, while three of the teachers had obtained a Diploma, the minimum requirement to qualify for a post in secondary school. While in-depth research activities were limited to this pool of teachers, all teachers within a given school site were invited to participate in focus group activities.

Key informants within the study were selected to capture a diversity of experience and opinion. As can be viewed in Table 3.1, I engaged a total of 16 key informants throughout the data collection process, including: Head teachers and academic masters at each of the four schools included in the study, two district-level officials from local government authorities within each district, one teacher tutor from Morogoro Teachers College, a Lecturer and former Dean at the University of Dar es Salaam College of Education, a former Minister of Education from the Ministry of Education and Vocational Training (MoEVT), and Camfed field staff who work side by side with schools and district authorities on a daily basis. The purposes for the engagement of these stakeholders is further detailed in Section 3.5.4.

Table 3.1
Key informant list

Stakeholder Type	Total Number
Head Teacher	4
Academic Master	6
District Level Officials from Local Government Authorities (LGAs)	2
Teacher Tutor	1
Former Dean, University of Dar es Salaam	1
Former Minister of Education	1
Camfed Field Staff	1

As was noted above, while the focus had initially been on the differences between teachers themselves, in order to avoid the pitfalls of assigning a static category to each teacher in the subsample, teacher discourse as observed in particular lessons, rather than the teachers themselves, became the focus of inquiry. The following sub-sections provide a brief overview of lesson characteristics in order to more fully contextualise the findings presented in Chapters 4 through 6.

3.4.3 Lesson characteristics

As is discussed in detail in Section 3.5, lesson observations consisted of video footage and semi-structured field notes, with the aim of observing two lessons for each participating teacher. Due to the unpredictable and flexible nature of the teaching timetable, as well as emergent challenges in the data collection process, the actual number of observations fluctuated between one and three per teacher, resulting in the collection of data from a total of 39 lessons across the two age cohorts and three subject areas. The following sub-sections provide insight into key lesson characteristics, including class size, classroom configuration and teacher positioning, and lesson duration. Together, these lesson characteristics frame the pathways available for classroom-based interaction, shaping the ways in which educational inclusion and exclusion emerge during teaching and learning.

Class size

As can be seen in table 3.2 below, class size varies substantially across the research sample. Class size ranged from a minimum of 29 students to a maximum of 145 students in the 39 lessons included in the sample, with an average class size of 60. Notably, average class sizes were observed to be substantially higher at one of the four schools included in the sample. At this school, overall school intake, as well as limitations imposed by shortages in available

classrooms and teachers, resulted in the need to merge multiple streams, creating larger than average class sizes. Despite the massive variations in class size, such differences had no apparent impact on the pedagogical approaches observed in each lesson, which is further detailed in the sub-section examining lesson structure and the organization of teacher-student interactions below.

Table 3.2
Class sizes (Disaggregated by gender and age cohort)

Class Sizes (Disaggregated by gender and age cohort)				
	Minimum	**Maximum**	**Mean**	**SD**
All	29	145	59.56	29.65
Girls	14	92	33.36	18.68
Boy	14	61	26.21	11.68
All - Form 1	37	93	55.65	16.06
Girls - Form 1	18	52	30.10	10.24
Boys - Form 1	18	41	25.55	6.19
All - Form 3	29	145	63.68	39.35
Girls - Form 3	14	92	36.79	24.53
Boys - Form 3	14	61	26.89	15.69

Classroom configuration and teacher positioning

Proximity and orientation inevitably influence the terms of communication, and therefore the configuration of classrooms, particularly student seating arrangements and teacher positioning, have the potential to shape the nature and extent of classroom interaction (Wannarka & Ruhl, 2008). In the 39 lessons included in this study sample, no variation was observed in the physical configuration of the classroom setting. Classrooms were consistently arranged in a traditional forward-facing row and column configuration, with all student chairs and desks facing the teacher and chalkboard. As noted by Sommer (1977), the traditional row and column style arrangement with all seats facing the teacher, lends itself to a 'sit-and-listen teaching' approach. This vertical seating arrangement, while useful for supporting student focus on the teacher, is not considered conducive for promoting whole class dialogue or small group activities, as it limits students' line of sight. Students face the teacher, with their backs to one another, hampering communication between peers. This arrangement reinforces the assumption that student discourse should be directed toward the teacher, and therefore best supports teacher-centric instruction (Betoret & Artiga, 2004; Wannarka & Ruhl, 2008).

Given the size of some classes, the traditional row and column classroom arrangement often appeared to be the most viable configuration in order to accommodate all students, highlighting the reality that class size has the potential to constrain teacher capacity to make changes to the physical configuration or interactional nature of the classroom. As a result of overcrowding, and a subsequent lack of space between rows and columns of student seats in some classrooms, teachers often lack a clear walk-way, impeding teacher capacity to interact with students seated further from the front of the class (field note, 28/03/2018). Importantly, even in lessons with more manageable class sizes, and no apparent physical constraints on teacher mobility, teachers tended to maintain a position at the front of the room, hindering teacher capacity to engage with, or clearly observe, students in the middle and back rows.

Lesson duration

Analysis of lesson duration indicates that school timetables are not strictly adhered to. Lesson duration for single periods is officially 40 minutes, however, the 12 single lessons observed varied in length from 22 minutes to 47 minutes, with an average lesson duration of 37 minutes. Lesson duration for double periods is officially 80 minutes, however, the 27 double lessons observed varied in length from 20 minutes to 80 minutes, with an average lesson duration of 60 minutes. Typically, upon closing a lesson, particularly if the full time was not utilized, teachers tended to assign individual or group work for students to complete following the teacher's departure from the classroom. This practice, and the limitations inherent within it, are further discussed below.

Lesson structure and the organization of teacher-student interactions

Analysis of lesson observation data indicates that there are five similar components which underpin the progression of lessons across subject areas and age cohorts, including: Opening, review, introduction, reinforcement, and closing. Lessons invariably commenced with a brief opening, typically lasting less than one minute, and including greetings and logistics. In the majority of observed lessons, teachers then engaged in a three to five-minute review of previous learning. Review was followed by the introduction of new content, a process in which the teacher presented new material or demonstrated how to complete new mathematical or grammatical procedures. Often, the introduction of new content overlapped with reinforcement, defined herein as opportunities for students to apply the new knowledge or express their understanding of the new ideas or procedures presented. In maths and

English lessons, reinforcement activities were typically distinguishable from the introduction of new content. In history lessons the introduction of new content and reinforcement activities were often so integrated as to be indistinguishable, as students were invited to engage in the discursive production of target content alongside the teacher. Closing is the most flexible component of lesson structure. Some lessons were closed through a process of restating or summarizing key points covered in the lesson, whereas others were closed by assigning exercises, noting topics to be introduced in the next lesson, or teacher commentary unrelated to the lesson content.

In addition to the lesson component, the selection of organizational strategy frames the pathways available for classroom interaction. Because classroom observations were focused on teacher practices, organization is categorized in terms of teacher audience, classified as individual, group, or whole class (Galton, Hargreaves, & Comber, 1998). Individual or group arrangements refer to instances in which students who are not directly engaged in an interaction with the teacher or are not part of the group being addressed by the teacher are not expected to participate as overhearers but instead are free to engage in separate and parallel classroom activities. This can be contrasted with whole class teaching whereby, while the teacher may be engaging with particular students, these interactions are public in that student responses are expected to be heard and shared by the whole class (Galton et al., 1998). Marvin (1998), in her analysis of the influence of classroom arrangements on teacher capacity to foster processes of educational inclusion, emphasises the benefits of the different organizational arrangements. Her research highlights the importance of balancing different opportunities for teachers to engage with their students, ensuring that both the individuality of learners' needs, and the collective experience of learning, are attended to through a combination of organizational strategies.

Analysis of classroom organization clearly indicated that whole class teaching is the primary configuration used to enact all five components of lesson structure, from reviewing previous learning to reinforcing new knowledge. Individual or group arrangements were only observed to a limited extent in 9 of the 39 lessons included in the sample, and typically accounted for less than 10% of teaching time. During these activities, teachers tended to disengage from the class, either exiting the classroom or taking a seat at the front of the room and engaging in independent activities. As indicated by Marvin (1998), such disengagement results in missed opportunities for teachers to engage students in more intimate settings in order to generate

insight into the knowledge and learning strategies that individuals bring to the classroom, information that is vital to processes of educational inclusion as defined herein.

Where teachers did remain visibly engaged, teacher-student interaction was often non-verbal, entailing a silent process in which teachers would move from student to student marking exercise books in rapid succession. The tendency to focus on the marking of student work in these instances indicates that individual and group activities are conceptualised as a form of summative assessment, precluding opportunities for teachers to draw out, or be responsive to, the evolving understandings of students outside of the whole class context. In post-observation interviews, teacher comments and observed practices indicate that teachers would only remain in the classroom during individual or group work for the purposes of classroom management, and not as a mechanism for the exchange of informational content or to provide more tailored support to smaller groups of students. Teacher reflections on the benefits of group work indicate that they perceive it to be time consuming and largely ineffectual. Ultimately, analysis suggests that teachers tend to conceptualize teaching and learning as a whole-class arrangement, and other arrangements as opportunities for students to engage in independent or peer-based learning without teacher involvement.[18]

As stated at the outset of this chapter, the initial question guiding my analytical process focused around how opportunities for student participation and learning are structured during classroom instruction. The question was intended to contribute to the development of a more holistic understanding of the ways in which teachers' pedagogical choices contribute to or constrain their capacity to engage in processes of educational inclusion across a variety of pedagogical structures. The initial analysis rapidly revealed the predominance of teacher-fronted whole class instruction. Transcript analysis showed that the pattern of classroom interaction varied minimally between lessons or across the three subjects, with the majority of classroom discourse dominated by question and answer sequences structured through an I-R-F pattern. As is further detailed in Section 3.6, this initial finding initiated a process in

---

[18] Researchers, particularly those investigating processes of education inclusion in contexts in the global South, consistently highlight the benefits of peer-group collaborative discourse. In accordance with this line of inquiry, dialogue between peers, supported by teachers who actively prepare students to participate in and productively contribute to peer-based dialogues, fosters processes of social and academic inclusion (Jha, 2002; Singal, 2005). However, as noted by Werning et al. (2016), to ensure that social processes between students create inclusion, rather than erecting barriers to it, teachers must take responsibility for promoting acceptance among peers.

which guiding research questions were revised in order to construct an explanatory framework that prioritises context and depth of view.

3.5 Data collection

In the following section, I describe each data collection method. The sections thereafter provide an overview of the processes entailed in instrument pre-piloting, piloting and revisions and data analysis. To augment the methods detailed below, I made use of observation field notes throughout the field work process. This enabled me to document what Heath and Street (2008) refer to as "decision rules" which defined the decisions I made about how to focus aspects of my research. This was essential for the emergent process of establishing reasonable boundaries for my study, consolidating that which I had seen and done, and supporting the analytical process.

3.5.1 Observation protocol

Observations allow for opportunities to observe the naturally unfolding worlds of the teachers and students as they occur within the classroom (Berg, 2004). This method of data collection enables researchers to circumvent several of the limitations associated with post hoc interview or survey methods, including memory limitations, post-hoc rationalization, and stereotyping (Cotton, Stokes, & Cotton, 2010). As Cohen et. al. (2013) note, observational data are sensitive to contexts, demonstrating strong ecological validity. In accordance with CR, observation provides invaluable insight into the specific contingent conditions under which causal mechanisms operate and interact in the real domain. It is only by observing social phenomena in their natural contexts that knowledge of the real can come to light (Tsang, 2014). Despite the benefits of observation, Dyson et al. (2002) note the paucity of observation data in research investigating educational inclusion. This shortcoming forces researchers to rely on second-hand accounts, failing to properly scrutinize claims of inclusivity through direct observation or disconfirmatory evidence.

The study involved the use of non-participant observation, relying on semi-structured notes in conjunction with video-recording procedures and transcription. Regarding the former, the semi-structured notes-based approach to data collection involved a pre-designed pro-forma (See Appendix 3) incorporating specific elements from the TEACh observation protocol, and the Framework of Participation adapted by Florian and Linklater (2010). The TEACh

protocol[19] supports the identification of aspects of teaching that are most important for improving all children's participation and learning, drawing attention to visual cues of teacher sensitivity and responsiveness, as well as to the distribution of resources and the arrangement of the classroom. The latter incorporates notions of teacher authority, learning arrangements, dialogic interaction patterns, and behavioural cues denoting teacher expectations and adaptations. Collectively, the inclusion of these elements of classroom instruction align with my understanding of educational inclusion as a process whereby the school and its teacher's value, and are responsive to, the diverse learning needs of students.

While these main themes, and the events and behaviours underpinning them, enabled me to target my observations, Bartlett and Vavrus (2017) highlight the importance of what they refer to as 'strange-making' whereby the observer enables him/herself to see things afresh, rather than seeking out common elements across the observations. In order to support this, observational data remained largely descriptive, focused on what I saw rather than what I expected to see or was familiar with (Delamont, 2012). Fieldnotes did not attempt to incorporate researcher-generated judgement until after each observation was completed. In order to further control for the possibility of selectivity in the observation process, fieldnotes were augmented by video-recording procedures and lesson transcriptions further detailed below.

Visible indications of student participation provide integral insight into classroom culture and processes of inclusion and exclusion. The observations therefore incorporated four minute 'time-stamps' (Bartlett & Vavrus, 2017) whereby I undertook an explicit assessment of several dimensions of student participation. These dimensions included, but were not limited to, patterns of student bidding, student tendencies to complete teacher utterances, use gestures or facial expressions such as nodding or following teacher reasoning with eye or head movements (Helme & Clarke, 2002; Shepherd, 2014).

Directly following each observation, I used the semi-structured notes to document the qualities of classroom actors, making explicit judgements about overall student participation, teacher sensitivity and responsiveness through the use of a rating system (See Part III of

---

[19] For additional information about this protocol, please visit
<http://www.educ.cam.ac.uk/centres/real/researchthemes/teachingandlearning/effectiveteaching/>.

Appendix 3). This consideration of qualities required a higher degree of inference (making judgements about the observed events) not appropriate during observation itself, but of great value thereafter (Bartlett & Vavrus, 2017; Delamont, 2012). While this process introduced a degree of unreliability (Cohen, Manion, & Morrison, 2011), it was clearly based on explicit evidence. Furthermore, it provided an important opportunity to compile summaries supporting interpretation during the initial phases of data analysis. A sample completed observation protocol can be viewed in Appendix 3.

Given the extensive nature of classroom happenings, all observations were video recorded and later transcribed (view Appendix 4 for a sample lesson transcript). Recording made it possible to re-watch lessons in order to scrutinize the data more fully, supporting data validation and mitigating the challenges of observer bias (Cohen et al., 2011; Cotton et al., 2010). Teacher voice during lessons was audio-recorded using a high-quality lapel microphone and transmitter, and whole class interactions were video-recorded using a tripod mounted tablet. As noted by Fadde and Zhou (2014) and Gamoran Sherin and van Es (2009), the positioning of the camera influences what can be observed, shaping what is possible to confirm and analyse in subsequent analysis. During piloting activities, it was determined that the optimal location for recording technology was in the front corner of the classroom, enabling a view of the back of the teacher, a clear view of the students nearer the front of the classroom, and a view, albeit obscured, of students nearer the back. It was determined that had the camera been positioned nearer the back, given the overcrowding in the majority of observed lessons, it would have been more difficult to determine which students a teacher was engaged with at any given moment. This positioning made it more possible to track teacher interactions with individual students during analysis.

One of the major challenges associated with observation research is the potential for the behaviour of participants to be influenced by the act of observation itself. While the use of video recording technology enables a more holistic depiction of classroom happenings than that obtained through fieldnotes, there is a greater risk of 'reactivity' to the recording device, wherein participants may alter their behaviour while being recording (Cotton et al., 2010). In order to minimise reactivity, I engaged in preliminary recording sessions, introducing both teacher and students to the technology prior to the onset of formal data collection activities.

3.5.2 Stimulated recall interviews

Semi-structured, in-depth interviews were utilised in order to capture the perspectives and authentic experiences of participating teachers. In accordance with the CR ontology, while interviews may not reveal the mechanisms underpinning teacher capacity to enact processes of educational inclusion, they do provide vital insight both into research participant perspectives and the social contexts, constraints and resources within which they act (Smith & Elger, 2012). As noted by Bhaskar (1998), while the CR tradition recognizes inherent limitations in individual interpretations, accounts of 'actors' form the indispensable starting point of social enquiry' (p. xvi). The layered ontology underpinning CR highlights the importance of these accounts, providing the researcher access into the human experience.

Two types of semi-structured interviews were utilised with the twenty-three teachers who participated in in-depth research activities, pre-observation interviews and stimulated recall interviews. Pre-observation interviews[20] provided an opportunity to develop researcher-participant relationships, creating space for participants to ask questions and share information about themselves in a relatively informal setting. Ultimately, these preliminary discussions served as a vital tool for rapport building. Stimulated recall interviews provided opportunities to generate insight into teacher interpretations of particular classroom happenings, vital data which supported the triangulation of findings and hypotheses emergent from lesson observation data.

To better understand teachers' perceptions regarding the causality of their behaviours, and to counteract actor-observer differences in observation, stimulated recall procedures were utilised during post-observation interviews (Tashakkori & Teddlie, 1998). In accordance with the definition established by Shavelson and Stern (1981), stimulated recall is defined as a process whereby lessons are recorded and teachers then view their teaching and describe their thinking during instruction. As has been documented in extant research, recording helps circumvent the inevitable challenges of faulty or selective memory on the part of both the researcher and the participants (Cohen et al., 2011), prompting teachers to articulate underlying beliefs that inform their practice (Consuegra, Engels, & Willegems, 2016).

---

[20] Given the narrowed focus detailed in Section 3.6, much of the data generated through these preliminary interviews was not utilised in the preparation of this dissertation, but provides useful data for future research.

During each post observation interview, I utilized a stimulated recall procedure adapted from Schachter (2017) to access teachers' pedagogical reasoning, interpretations, judgements, and perceived constraints. Each post-observation interview was conducted as soon as possible following the observed lesson. The interview procedure commenced with the teacher seated with the tablet for viewing the lesson. Teachers underwent a brief tutorial in how to pause, rewind, fast-forward, and play the video in order to empower them to identify moments of instruction that were meaningful to them. They were also informed that I would be pausing the video at moments that struck me as particularly pertinent to student learning or participation. Interview questions were formulated on an ad hoc basis regarding how and why different aspects of educational inclusion emerged within particular moments in the lesson. The discussions that ensued provided variable levels of insight into teacher perceptions of how they are enabled or constrained in the operationalisation of educational inclusion. Because interviews were grounded in observed events, specific interview schedules were developed on a provisional basis. A sample interview transcript can be viewed in Appendix 5.

The qualitative data gathered through stimulated recall interviews provided insight into teachers' subjective interpretations of their worlds rather than an objective reality. In accordance with CR, analysis of the interview data required reflexivity, a process of contextualization on the part of the researcher, so as not to reduce apparent phenomena to their discursive descriptions during analysis (Edwards et al., 2014). The integration and analysis of the data gathered through these methods is further discussed Section 3.7.

3.5.3 Focus groups

Similar to the post-observation stimulated recall interview data, focus group data was utilised to generate deeper insight into, and triangulate tentative findings established through, the analysis of lesson observation data. Through discursive interactions between multiple individuals, focus group discussions have the potential to create space for researchers to glean insight into collective perspectives, socio-cultural norms and participant values (Berg, 2004), while reducing the potential for acquiescence bias (Cohen et al., 2011). In meaningful discussion among one another (as opposed to in direct dialogue with myself), points of strong agreement or disagreement provide invaluable insight into the social norms and values, and

aspects of school culture and practice that can, in accordance with CR, serve as generative mechanisms capable of producing the patterns of actual and empirical events of interest (Jakobsen, 2012). The question then is, what environment must the researcher construct in order to foster genuine discussion open to authentic dissent or meaningful agreement reflective of social norms and values? In her analysis of how focus group discussions can be used in developing country contexts, Jakobsen (2012) emphasizes the need to move beyond respect for local culture alone, and to address social norms and power dynamics between researcher and participants that influence participant voice. Through the use of activity-based discussion, Jakobsen (2012) sufficiently decentred herself, enabling her to foster an environment suitable for the genuine performance of social norms and values, and in doing so, generate data validated through peer interaction.

Informed by the logic underpinning Jakobsen's (2012) activity-based approach, I utilized a variation of the values continuum activity to foster productive dialogue during focus group discussions. The values continuum is a tool frequently utilized in the United States, enabling teachers to develop student's rhetorical skills while addressing controversial issues in classroom settings. In the context of the focus groups, all participants were asked to stand up and, as a particular value statement was read, move to one side of the room to indicate agreement or to the other side of the room to indicate disagreement. While this approach resulted in the creation of a dichotomy as opposed to a continuum, it was determined during piloting activities that moving to one side of the room where chairs could be arranged, rather than milling at a location nearer the centre of the room, was essential for the quality of subsequent discourse. Once participants positioned themselves, time was devoted to eliciting discussion about their respective positions, yielding invaluable data on what is socially acceptable or appropriate to defend or refute a particular stance (Jakobsen, 2012). While the agree-disagree dichotomy was not ideal, through discussion, the nuance underpinning teacher perspectives was communicated.

The activity was designed to increase the likelihood that participants would engage with, and formulate ideas in response to one another, reducing the influence of my positionality as a foreign researcher. Throughout this discussion, I took on the role of moderator, working to maintain a natural and non-threatening discussion environment (Jakobsen, 2012), drawing participants toward relevant discussion topics without interceding in the content of the

discussion itself. I did so by posing guiding questions and redirecting the flow of conversation when participants veered off topic (Berg, 2004). In addition to enabling me to decentre myself, the approach helped to reduce non-participation by some (Cohen et al., 2011), as it required all participants to take a stand and defend their positioning. All focus groups were recorded and were later transcribed and analysed.

The value statements, which can be viewed in Appendix 6, were drawn from the Index of Inclusion (Booth & Ainscow, 2016) as well as from the questionnaire I created and validated during pre-pilot activities in May, 2017. The Index of Inclusion is informed by the social model of disability, and contains sets of indicators and questions related to school cultures, policies, and practices that enable the identification of barriers to teaching inclusively within the wider school environment. Please view Section 3.5.6 for additional information regarding the questionnaire as well as the selection of specific statements utilised for focus group activities.

In accordance with the recommendations put forward by Krueger (1994), focus groups were intended to be composed of groups of seven to twelve teachers. However, as a result of space limitations, weather conditions, and the need to maintain a sense of inclusivity and friendliness, one of the focus groups exceeded these recommendations, including a total of seventeen teachers. Focus group participation was limited to teachers (not school leadership), in order to ensure equal standing within the school hierarchy and minimize the effects of power dynamics that may exist within the group itself. View Appendix 7 for a sample focus group discussion.

3.5.4 Key informant interviews

Key informant interviews, prominent within development literature and ethnographic research, provided essential insight into the wider contextual factors with the potential to influence the findings (or stakeholder interpretation of them). Kumar (2014) notes that key informant interviews provide qualitative researchers with insight into not only what people do, but why locally knowledgeable stakeholders think they do it. In accordance with CRs commitment to emergence,[21] they enable a consideration of not only teacher interpretations

---

[21] Emergence refers to the idea that social phenomena should be treated as entities unto themselves rather than reduced to their component parts.

of processes of inclusivity and exclusion, but also the vertical and horizontal relations with the potential to influence teacher perceptions (Tsang, 2014). Vertical relations include the phenomena from which teacher perceptions emerge (e.g. school policies, school culture, social norms, and educational priorities) and the properties which are emergent from their conceptualizations (e.g. classroom norms). Thus, well-designed key informant interviews with local government officials, school heads, and community leaders can help to reveal particular aspects of school culture and policies that may influence how and why teachers enact inclusionary or exclusionary processes within the classroom. Similarly, interviews with teacher tutors can reveal aspects of teacher pre-service training that may influence teacher attitudes toward educational inclusion. While the insights of key informants provide an opportunity to examine emergent and a priori themes throughout data collection, Kumar (2014) notes the importance of recognizing the positionality of key informants, and contextualizing their ideas and contributions accordingly.

Key informant interviews followed an individualized, semi-structured interview schedule, drawing out relevant knowledge in relation to both the experience of the key informant and the research focus. I adopted the theory-driven semi-structured interview promoted by Pawson & Tilley (1997), openly describing relevant aspects of the theoretical framework underpinning my research and seeking the input and expertise of key informants through a process of dialogue and negotiation. A sample interview can be viewed in Appendix 8.

3.5.5 Instrument pre-piloting and piloting

I engaged in pre-pilot activities in one Tanzanian government secondary school in Dar es Salaam for four days between April and May 2017. As a result of my pre-pilot, the instruments underwent a substantial revision process summarised in Table 3.3 below. The final piloting process was carried out in October 2017 in the same school. As can be viewed in the table below, the objectives were more focused in this round of piloting. The piloting process and subsequent changes are further detailed below. Because of the nature of key informant interviews, which varied as a function of the particular stakeholders involved, these interview schedules did not undergo a formal piloting process.

Table 3.3
Summary of pre-piloting and piloting goals and changes

Research Phase	Tool	Goals	Subsequent Changes
Pre-Pilot	Lesson observation protocol	(1) to determine the extent to which the data collection process was oriented in a way that was sensitive to participant needs and ideas.	From a narrative approach to the use of semi-structured field notes, augmented by video-recording and transcription
Pre-Pilot	Post-observation interview guide	(2) To assess the ease of implementation of each instrument (3) To determine the extent to which methods and items reliably generated relevant data. (4) To complete a small-scale validation study of the questionnaire	Addition of audio and video-support and inclusion of a stimulated recall procedure adapted from Schachter (2017)
Pre-Pilot	Questionnaire		Shifted to focus group format
Pilot	Lesson observation protocol	(1) Determine the relevance of specific items (2) Assess the ease of implementation of the time-stamp approach (3) Finalise the technological setup	(1) Reduction of items included (2) Reduced the frequency of time-stamps from every two minutes to every 5 minutes (3) Shift video setup from back of classroom to the front of the room
Pilot	Post-observation interview guide	(1) Assess the benefits of different types of questions	(1) Prioritise the use of more specific questions
Pilot	Focus Group	(1) Assess value statement validity (2) Assess the viability of the values continuum format	(1) Identified 11 value statements to utilise with the least amount of variation in terms of teacher interpretation (2) Shift from a continuum to a dichotomy approach

Observation protocol. The pre-pilot work enabled me to check the feasibility of the narrative approach to lesson observation proposed in my first year Methodology Chapter. The pre-piloting process indicated that the approach did not enable me to capture a fully contextualized picture of classroom events and behaviours. Therefore, a major shift was undertaken whereby it was determined that semi-structured fieldnotes would be utilised during lesson observations, and that these would be augmented by the use of video-recording and transcription. A description of the resulting semi-structured field-notes can be viewed in Section 3.5.1 above.

The pilot activities in Phase 2 provided an opportunity to assess three additional dimensions of the observation protocol. Firstly, it provided an opportunity to determine the scope of evidence that would serve as proxy indicators of teacher responsiveness and sensitivity and student participation. That is, I needed to determine which evidence was most relevant for analysis, so as to focus my observations accordingly (Cohen et al., 2011). This resulted in the removal of several items initially included within the semi-structured fieldnotes, including the role of medium of instruction, room décor, and a brief summary of events through time, all of which could be observed later through the video footage, and all of which offered limited novel insight given the research focus. Secondly, piloting activities provided an

opportunity to determine the extent to which it is in fact feasible and beneficial to utilize set amounts of time to shift my attention from the structured field-notes about the quality of teaching to an observation of student participation, or if these observations should be relegated to post observation viewing with the use of the video alone. It was ultimately determined that this time-stamp approach was necessary because of the limitations of the video-recording, which often could not, as a function of positioning, capture the full spectrum and nuance of classroom participation. Thirdly, piloting of the observation procedures provided time to refine and finalise the technological setup.

Stimulated recall interview. In pre-piloting the post-observation interview, it became evident that a process of stimulated recall would be substantially enhanced by the use of video support. In relying on my own documentation of class happenings, I became the bearer of knowledge, reducing teacher voice and authority. Furthermore, challenges inherent in a reliance on memory hindered data validity. In response, I incorporated the use of video detailed above.

Questions were left general during the piloting process, including such prompts as 'there are many things you could do/focus on. Why did you choose that?' Analysis of teacher responses indicated a tendency to divorce interpretations of teaching activities from learning-related processes. Teachers struggled to reflect meaningfully on teacher-student interactions, indicating that more assistance was required than had been planned for in helping teachers to productively engage with the videos. Therefore, more specific questions were added in order to generate teacher reflections regarding student participation and learning. These questions included statements such as: 'I see not many students are raising their hands to respond to your question. Why do you think that is?' 'Do you think [a particular student or group of students] understood that concept/activity? How do you know?' Additional information regarding the methodological learnings from this approach is included in Section 3.8.

From questionnaire to focus group. Initially planned as a questionnaire[22] developed in the first year (Lent term) of my doctoral work, a focus group format was ultimately utilised in

---

[22] The original text-based questionnaire included sixty items measuring several socio-cognitive constructs. The intention was for these constructs to be utilised in order to generate insight into how teachers conceptualise processes of inclusivity and related notions of student heterogeneity. The main purpose of pre-piloting the questionnaire was to undergo a small-scale validation study in order to check participants' interpretations of particular items and instructions. This process was carried out in accordance with the principles compiled by

order to generate additional insight into teachers' collective perspectives, socio-cultural norms and values. The adapted focus group format enabled a more expansive discussion, generating more exploratory data relevant for my line of inquiry and context.

Piloting of the focus group method was completed during Phase 2, as can be seen in Figure 3.1 and Table 3.3 respectively. Two to three value statements were selected from a given construct wherein the pre-pilot work indicated minimal challenges in terms of construct validity, and were further assessed and revised during this piloting phase in order to bolster the clarity of language, contributing to overall validity (Cohen et al., 2011). To view the final list of value statements utilised, view Appendix 6. The focus group format was then piloted to ensure the activity-based approach generated normative judgements and discussion rather than fact and/or compliance (Jakobsen, 2012). It was at this juncture that it was determined that the continuum approach, which required participants to remain standing and scattered throughout the room, did not support the development of high-quality discussion. Therefore, the format was shifted from a continuum to a dichotomy approach, supporting ease of implementation.

The inclusion of students. Noted as a concern within my draft Methodology Chapter, submitted in March 2017, conflicts did arise when engaging both students and teachers simultaneously. During pre-piloting, it became evident that shifting between teacher and student focused research hindered my capacity to develop deep and trusting relationships with either group. Therefore, direct engagement was limited to teachers. This positionality was determined to be essential for gaining acceptance among the teaching community within participating schools.

Foddy (1993). Pre-pilot findings indicated that teachers' rationale for the selection of a particular response anchor generated far more relevant data than the selection of a response anchor unto itself. In examining responses to the sense of personal responsibility scale, for example, discussions about the perceptions underpinning teachers' degree of agreement or disagreement provided invaluable insight into teachers' normative judgements about the backgrounds and learning needs of their students. In addition, During this process, it was determined that concepts such as *ability*, *intelligence*, and *effort*, and the interpretation of response anchors themselves, require substantial adaptation in order to strengthen validity in the Tanzanian context, and that a focus group format would better position me to generate the types of insight I was seeking. For additional information about this process, I can share a draft of my registration report.

3.5.6 Transcription rules

As noted by Edwards (2005), the use of video recording serves as an essential tool in the study of discourse; and yet, unto itself, is insufficient for the systematic examination of interaction. As she aptly notes 'It is simply impossible to hold in mind the transient, highly multidimensional, and often overlapping events of an interaction as they unfold in real time. For this reason, transcripts are invaluable. They provide a distillation of the fleeting events of an interaction, frozen in time, freed from extraneous detail, and expressed in categories of interest to the researcher' (p. 321). Given this reality, the seven lessons included in the initial sub-sample, and supporting interview data, underwent an initial transcription process. Later, upon expanding this sub-sample to include several more lessons and supporting interviews, these too were transcribed. All transcriptions and original video-based data were uploaded to NVivo for ease of analysis.

As is common in much of the education research applying discourse analysis, the transcription rules followed the conventions introduced by Jefferson (2004). These rules were not applied to all transcripts, but rather, only to those transcripts or parts of transcripts whereby attention to particular features of discourse was fruitful in order to consider particular interactions in a different or more detailed light. While not all transcription rules were relevant for this analysis, those commonly utilized symbols that contributed to analysis, and can be seen within some of the transcriptions included within the findings chapters, are presented in Table 3.4.

Table 3.4
Summary of transcription rules

Symbol	Meaning
(0.0)	Indicates elapsed time by tenths of seconds, making it possible to see prolonged pauses in speech
-	Indicates that a word has been cut off, typically by another speaker
↑	Indicates a shift to notably higher pitch
°word°	Indicates that the sounds within the degree signs are softer than the surrounding talk
(( ))	Contains transcribers descriptions
[ ]	Specifies shift in language (Only marked when shifting from English to Kiswahili. Also then marked when returning to English.)

3.6 A Process-based note: Sampling procedures

As was described in Section 3.3, this research was commenced with an openness to the potential foci of research necessary to establish a coherent explanation for how teachers are enabled or constrained in the operationalisation of educational inclusion. The following two sub-sections detail processes of sub-sample selection and the identification of the primary unit of analysis respectively.

3.6.1 Strategic sub-sampling

Data collection procedures resulted in a substantial amount of data spanning two districts and four schools and resulting in 39 lesson observations and accompanying stimulated recall interviews, four focus group discussions and 16 key informant interviews. The process of data collection itself created time and space for an in-depth consideration of processes of inclusion within my research context, increasing the likelihood of capturing a diversity of teacher practices and stakeholder perspectives while also resulting in the generation of a massive quantity of data. In order to support a process of in-depth qualitative analysis, I prioritised the identification of a sub-sample of lesson observation and stimulated recall data, enabling me to engage with the complexity and heft of the data in a controlled way. Table 3.5 below provides a snapshot of the total data gathered through each method, as well as the data utilized, to a greater or lesser extent, to inform the findings presented within this research.

Table 3.5
Data gathered and data used (numbers of sources)

	Observation Protocols	Stimulated Recall Interviews	Focus Group Value Statements[23]	Key Informant Interviews
Total data gathered	39	38	10	16
Data used to inform the findings	12	12	4	15

While multiple methods were utilized, the sub-sample of data gathered through lesson observation and stimulated recall served as the primary source. Data gathered through key informant interviews and focus group discussions were utilized to scrutinize and triangulate tentative findings drawn from the observation and stimulated recall data. The use of this data

---

[23] As noted within Section 3.5.3, a total of four focus group discussions were convened. Each discussion utilized between 10 and 11 value statements to initiate discussions. It is those value statements, rather than the different focus groups themselves, that are highlighted herein.

was limited to those insights relevant for interpreting observed teacher practices and differences therein. It is hoped that the full scope of data gathered through focus group and key informant methods will be more fully utilized to inform future stages of this research which will more explicitly examine teacher perceptions and attitudes.

The sub-sample of lesson observation data was identified through an emphasis on maximum variation. Prioritization was given to several specific selection criteria, including: Inclusivity rating, school, subject area and age cohort. Where there were still multiple lessons meeting the prioritized criteria, pedagogical approach and the availability of an accompanying in-depth stimulated recall interview were also considered. The use of these criteria helped to maximize diversity within the sub-sample, supporting the identification of a sub-sample of lessons that would best position me to develop a theoretically and empirically grounded argument.

A researcher-generated inclusivity rating was utilized as the first criterion for lesson selection, supporting the identification of the first seven lessons included within the sub-sample. The inclusivity rating refers to an aggregated raw score assigned to each lesson based on an evaluation of specific qualities of classroom actors and the nature of classroom interaction as documented on the observation protocol (See Appendix 3, items 16-19. See Section 3.5.1 for in-depth details about protocol itself). In particular, the rating reflects researcher-generated, evidence-based judgements about four specific aspects of the teaching and learning process, including:

- **Teacher sensitivity and responsiveness to students' learning needs**: Teacher behaviors including instructional adaptation, the inclusion of alternative pedagogical techniques, or alternative explanations that appear to be in response to observable evidence of student learning needs.

- **Teacher-student relationship and teacher affect**: Teacher behaviors related to intonation, positive or negative reinforcement, the use of student names, and other observable indications of teacher relationships with students.

- **Student participation**: Student behaviors including hand-raising, gaze, and response rate which are indicative of the extent to which students are participating and on-task.

- **Student to student interaction**: Student behaviors directed toward one another rather than the teacher, including explicit peer-based work and student comments or ideas directed toward peers rather than the teacher.

For each item, a lesson was scored on a three-point scale, with a score of one reflecting minimal evidence of positive or inclusive dynamics, a score of two indicating moderate evidence, and a score of three reflecting substantial evidence of processes of educational inclusion. With a minimum possible score of 4 and a maximum of 12, the average score across the 39 lessons included within the sample was 6.6, with a mode of 6. As can be seen in Table 3.6 below, the analysis of inclusivity ratings allowed for the identification of a small batch of contrastive data containing three lessons characterised by processes of educational inclusion (Scoring 11 out of 12 possible points on the inclusivity scale) and four lessons characterised by an atmosphere of exclusion (Scoring only 4 out of 12 possible points on the inclusivity scale). To see the inclusivity ratings of all 39 lessons included within the sample, view Appendix 3.

Table 3.6
Sub-Sample Inclusivity Rating

Lesson Code	Teacher Sensitivity	Teacher Affect	Student Participation	Peer Interaction	Total
020301B	1	1	1	1	4
010106A	1	1	1	1	4
010201B	1	1	1	1	4
010204A	1	1	1	1	4
010203B	3	3	3	2	11
020304B	3	3	3	2	11
020305A	3	3	3	2	11

The sub-sample of lessons was then expanded to 12 in an attempt to ensure adequate saturation had been achieved. While within the remaining five lessons, the inclusivity ratings are more reflective of the mode than the extremes, they were selected in order to ensure the sub-sample reflected the diversity present within the full sample. This required a consideration of the school, subject area, and age cohort.

As detailed within Section 3.4.1, the school selection process relied on several proxy indicators of inclusion, creating space for the identification of two schools displaying characteristics attuned to processes of inclusion, and two schools displaying characteristics more aligned with exclusionary practices. The initial sub-sample of 7 schools comprised only three of the four schools included in the sample, omitting one of the schools identified as potentially non-inclusive. Drawing on this contrast, criterion 2 required that each school be

represented by a minimum of two lessons. As a result, two lessons from school 04, for which no lessons had been selected as a function of criterion 1, were added.

The final criterion 3 focused on subject area and cohort. As noted within Section 3.4.2, initial sampling procedures prioritised the inclusion of two focal cohorts (Form I and Form III) and three focal subject areas (English, maths, and history). It was initially hypothesised that these sources of variation would maximise the potential diversity in observed teacher practices. While the final sub-sample was not large enough for findings from these different sub-groups to be meaningfully compared, in expanding the sample, these contrasts were maintained in order to bolster the likelihood that the sub-sample would be reflective of the diversity evident across the entirety of the sample. Where more than one lesson fit the criterion requirements, priority was given to those lessons where more in-depth stimulated recall interview data was available (See section 3.5.2 for additional information about this data collection method). Table 3.7 provides an overview of basic data about both the nature and context of the 39 lessons as well as the 12 lesson sub-sample. For additional information about the full sample, including a detailed description of class sizes and room layout, lesson duration, lesson structure, and the organization of teacher-student interaction, see Section 3.4.3.

Table 3.7
Overview of lesson characteristics

	Subject Area (Lessons)			Form (Lessons)		Class Size (Girls and boys)			Time (Min)
	English	Maths	History	I	III	Min	Max	Mean	Avg
Total Sample	13	13	13	19	20	29	145	59.56	51
Sub-Sample	5	3	4	6	6	29	145	66.33	49

This approach to identification of the sub-sample of lessons aligns with the tenets underpinning conversation analysis (See Section 3.7.2), which typically follow a naturalist strategy of gathering evidence that is as diverse as possible for the purpose of systematic analysis and comparison. In accordance with the notion of saturation, trends observed in the sub-sample of 12 lessons demonstrated informational redundancies, indicating that the inclusion of 12 lessons was sufficient; data saturation had been reached (Saunders et al., 2018).

Focus group and key informant data was utilized in order to triangulate and deepen the insights generated. As detailed in Section 3.5.3, focus group discussions were structured around 10 value statements, each generating insight into teachers' perspectives, attitudes and experiences within their schools. Four of the ten value statements utilized to initiate focus group discussions and 15 out of the 16 key informant interviews generated relevant insights, creating space to examine a priori and emergent themes throughout data collection and further deepen my understanding of the context and preliminary findings.[24] The ideas examined within focus group discussions most explicitly underpin the findings presented within Chapter 4. The perceptions and interpretations explored during key informant interviews had a more direct influence on the findings presented within Chapters 5 and 6. Additional information about the substance of focus group and key informant interviews and impressions gained from each can be viewed in Appendices 10 and 11 respectively.

3.6.2 The nature of instruction and classroom discourse

Following the approach to case study research established by Bartlett and Vavrus (2017), a fluid notion of *case* was applied. Leveraging an unbounded perspective of a case at the outset of the research process allowed for an iterative, contingent, and contextualised tracing of relevant factors and features of inclusion during the preliminary phases of analysis. As noted within Section 3.4.4, analysis began with a process of reviewing the structured fieldnotes within the lesson observation protocol and constructing analytical memos in order to identify several lessons characterised by processes of inclusion and several lessons characterised by an atmosphere of exclusion. Analysis then involved the preparation and deep reading of the sub-sample of transcripts in accordance with the recommendations put forward by Creswell (2013) in order to 'see' what the data actually revealed. This process of initial transcript analysis supported the identification of trends within the data. Firstly, it became evident that there were differences in the ways in which teachers allocated turns to students between lessons characterised by inclusive and exclusive processes respectively. Secondly, it became apparent that the ways in which teachers responded to student contributions differed substantially across lessons and interactions, again providing a clear point of contrast between lessons characterised by inclusivity and those characterised by a sense of exclusion. Where a trend was identified within a given lesson, or particular interaction, corroborating

---

[24] Notably, one value statement regarding school policy failed to generate insight relevant to the revised scope of the study, and the findings were therefore omitted. The interview held with the Camfed field staff was also not incorporated into the findings as the substance did not extend beyond issues of logistics. For additional insight, please view the data summaries located within Appendices 10-11?.

and contradicting evidence was then sought out by examining the other lessons within the sub-sample.

A process of cross-referencing (Rampton, 2006) was then undertaken wherein I returned to the empirical and theoretical research within the field of inclusion, and incorporated new literature examining the nature of classroom discourse and, more specifically, teacher turn distribution strategies and followup moves. It is through this cross-referencing process that I-R-F emerged as the salient discursive structure underpinning the interactions observed within the sub-sample. While its prevalence in the sub-sample certainly reflects its dominance within teacher-student interaction, as noted by Howe and Abedin (2013), its focal role in analysis may also be due to the fact that once seen, I-R-F is impossible to not see within any observed classroom discourse. Nonetheless, I-R-F provided an important boundary for transcript analysis, contributing to the identification and definition of the focal *cases* that would define the remainder of the study.

Bounding cases around I-R-F as a pattern of interaction allowed for a more in-depth analysis of how the discursive strategies teachers use within the confines of a given interaction shape teacher capacity to enact processes of inclusion. As a result of the return to literature, in conjunction with variations identified within the sub-sample, the nature of teacher initiating moves was included as an additional dimension of analysis. As stated at the outset of this chapter, the process of case identification informed the way in which research questions were revised, resulting in three sets of guiding questions related to: the use of turn allocation procedures (See Chapter 4), the nature of teacher-posed questions (See Chapter 5), and the nature of teacher followup moves (See Chapter 6). As noted within Section 3.4, the sub-sample of lessons was expanded from 7 lessons to 12 lessons during this preliminary analytical phase, resulting in a corpus of 740 interactions to be unpacked and analysed. As is further detailed in Section 3.7.1, trends observed in the sub-sample of 12 lessons demonstrated informational redundancies, indicating that the inclusion of 12 lessons was sufficient; data saturation had been reached (Saunders et al., 2018).

Note that each findings chapter (Chapter 4-6) contains an explanation of the specific analytical procedures underpinning the presented findings. The explanation of data analysis processes in Chapter 6 is particularly substantial as a function of the nature of the data. Given this overarching structure, the following section provides an overview of the analytical

methods utilised without providing in-depth insight into the specific processes applied to each set of research questions respectively.

3.7 Data analysis

The methods employed to answer my research questions generated substantial qualitative data. The open approach to data collection strengthened my capacity to gain insight into the practices of participating teachers, and to draw conclusions regarding the mechanisms underlying the operationalization of educational inclusion in the classrooms included in the study. Initial analysis involved a deep 'reading' of the sub-sample of lesson observation video-based data and interview data in accordance with the recommendations put forward by Creswell (2013). This process of analysis supported the identification of trends which, as was noted in Section 3.5, highlighted the essential role of classroom-based discourse in shaping processes of inclusion and exclusion respectively. As a result, initial analytical processes revolved around learning about and enacting the principles underpinning discourse analysis. While thematic analysis of interview and focus group data as well as the observation data itself was later integrated in order to augment and triangulate findings, discourse analysis became the cornerstone upon which all findings were based.

The robustness of my findings and explanations will be subject to academic scrutiny, whereby 'colleagues should be able to examine the evidence the researcher has collected, the research process that she or he has used, the context in which she or he has conducted the research…and conclude that the claims made by the researcher are reasonable' (Weber, 2004, p. viii). Therefore, complete transparency in the approach to data analysis is intended to contribute to the rigour and robustness needed for peer review. To this end, in-depth explanations of the particular analytical processes underpinning each set of findings is presented at the outset of each of the three findings chapters respectively. The explanation of analytical processes detailed in Chapter 6 is particularly lengthy as a function of the nature of the data itself, and the research questions and orientation toward inclusion guiding that particular line of inquiry. To avoid redundancy, the following explanation highlights underpinning principles rather than the specific processes related to each of the research questions. The following sub-section provides preliminary insight into the unit of analysis. The sections thereafter describe the tenets underpinning discourse analysis and thematic analysis that were drawn upon in order to support the data analysis process. Section 3.7.3

provides additional explanation regarding the analysis of mechanisms that interact to generate the realm of the actual and empirical (CR terminology). Section 3.7.4 addresses issues related to reliability, validity, and generalizability.

3.7.1 Unit of analysis

In accordance with the qualitative analysis recommendations put forward by Silverman (2011), I commenced with an extensive analysis of a small batch of lessons, the selection of which was detailed within Section 3.4.4. During this initial phase of data collection and analysis, lesson observation data was repeatedly viewed, transcribed, and segmented into strings of interaction. As noted in Section 3.6, it is through this process that the triadic Initiate-Respond-Followup (I-R-F) pattern of discourse initially identified by Sinclair and Coulthard (1975) emerged as a relevant preliminary unit of analysis. The typical triadic pattern references a communicative process in which the teacher Initiates (I) an interaction, a student provides a Response (R), and the teacher then provides Followup (F). A focus on I-R-F as the initial unit of analysis resulted in a corpus of 740 interactions across the sub-sample of 12 lessons included for in-depth analysis.

It is through the joint process of discourse analysis and cross-referencing extant literature that seven dimensions of a given exchange emerged as potentially fruitful for further analysis. These included:

(i)   The nature of the teacher initiating move (type of question)
(ii)   The teacher strategy utilized for the distribution of turns (voluntary versus non-voluntary and choral solicitations);
(iii)   Student gender (male, female, choral);
(iv)   The correctness of the student response as indicated by the teacher (correct, partially correct, incorrect);
(v)   The nature of the teacher response (type of evaluative act used, if any)
(vi)   The nature of teacher followup move (way in which the teacher either builds upon or dismisses the ideas embedded within the prior student response)
(vii)   Other interactions (accounting for non-academic interactions and serving as a ragbag category).

All exchanges were coded for each of the categories i-vi above. Exchanges coded as other (vii) were not coded for the other six categories. Preliminary coding in this way helped to ensure that any analysis of the qualities of teacher practice were grounded in surrounding context and not treated as isolated utterances. However, as is discussed within each of the findings chapters (4-6), different aspects of this descriptive coding scheme were relevant for

different sets of research questions. Aligned with the nested and ranked methodological framework noted by Hennessy et al. (2016), the analytical process applied within each chapter respectively reflects a process of moving between 'communicative acts' at the micro level and 'communicative events' at the meso level in order to support rigorous and contextualised findings. The term 'communicative act' is informed by the definitions put forward by Hymes (1972), and herein is used to reference the lowest level of discourse, corresponding most closely to a clause, though with a focus on the interactional rather than the grammatical function (Hennessy et al., 2016). Contrastingly, 'communicative events' are made up of multiple acts wherein the pedagogical activity remains constant (e.g. a full I-R-F exchange or multiple exchanges). For an applied example of this distinction and the way in which it was leveraged for analysis, please view Chapter 6, Figure 6.2.

Interview and focus group data underwent a substantially different process. Used to triangulate and deepen the findings revealed through the analysis of observation data, thematic coding was applied to these data sets. Importantly, coding incorporated large sections of content so as to avoid fragmenting teacher accounts or taking quotes out of context. Additional information about this process is included within the following sub-sections.

3.7.2 The tenets underpinning the application of discourse analysis and thematic analysis

In accordance with Critical Realist ontology, 'language is understood as constructing our social realities' (Sims-Schouten, Riley, & Willig, 2007, p. 103). The focus herein is primarily concerned with understanding the forms of discourse that teachers draw upon in their interactions with their students, and how these forms of discourse shape teacher capacity to enact processes of educational inclusion. In order to determine if and how particular discursive factors shaped teacher capacity, I first had to identify the routines underpinning classroom-based interaction. Aspects of discourse analysis provided a systematic method of examining the ways in which teachers attend to students' learning needs, and the significance teachers attributed to student-generated contributions, both of which are essential for determining how processes of educational inclusion are and are not actualised.

The analytical process drew upon aspects of both conversation analysis and interactional sociolinguistics, making it possible to balance a consideration of both the form and function

of classroom talk. Conversation analysis is concerned with how participants in an interaction display their understanding of one another's contributions; that is, what teachers and students make observable to one another through their discourse (Koole & Elbers, 2014). It creates space to uncover the structural organization of interaction, generating insight into why certain patterns and outcomes in discourse occur (Pierson, 2008). 'Conversational partners use language to travel together from the past into the future, mutually transforming the current state of their understanding of the topic(s) of their conversation' (Mercer, 2004, p. 140). Herein, the notion of prioritising the vernacular action described by Clayman and Gill (2011) represents one useful tool encompassed by conversation analysis. The emphasis on investigating actions already part of the 'vernacular culture,' such as the distribution of turns at talk, and the nature of teacher solicitations, made it possible to examine how such standard aspects of classroom discourse can be understood in terms of processes of educational inclusion. In both cases, it became possible to examine how teachers deploy and respond to these standard discursive practices, and to begin to identify relevant variations therein.

Interactional sociolinguistics takes as its focal point the function of utterances. This strand of discourse analysis creates space to consider how particular utterances are interpreted and taken-up, how they position interlocutors with respect to one another, the resultant responses, and community-specific ways of interacting. It creates space to consider how the language used in the classroom enables teachers to shape and re-shape their social surroundings. Ultimately, drawing upon several approaches to discourse analysis utilized within extant literature allowed for the identification of regularities and counter-examples within the data. Whereas, at the outset of analysis of lesson observation data, it appeared that each lesson was strikingly similar, the level of granularity created through the application of discourse analysis created data-driven pathways for the identification of the ways in which teachers were enabled or constrained in their interactions with students. It is these differences that form the basis of the findings presented in Chapter 4, 5, and 6 respectively.

Thematic analysis was leveraged in order to interpret the data generated through interview and focus group methods. It was determined that thematic analysis of this data enabled for the construction of a 'bridge' between the analysis of social interactions observed within the classroom, and teacher-generated interpretations of them. Pattern recognition or coding involved both deductive codes which originated from prior concepts and topics from the interview guide and inductive coding which developed from the data itself (See sub-section 2

of each of the findings chapters respectively for specific examples). Coding was applied to large sections of the data so as to avoid fragmenting teacher accounts or taking quotes out of context. Ultimately, processes of thematic analysis contributed to the triangulation of findings established through the discourse analysis. Detailed information about the application of both methods can be found within each of the findings chapters respectively.

3.7.3 From the empirical to the real: Identifying generative mechanisms

The research presented herein has sought to establish an in-depth exploratory analysis of the ways in which patterns of classroom discourse shape teacher capacity to foster social and academic inclusion or exclusion, and an analysis of the generative mechanisms underpinning such discourse. This objective involves two primary methodological components. Firstly, it requires empirical descriptions of the nature of teachers' interactions with their students through the lens of inclusion. Secondly, it encompasses a process of analytical explanation, creating space to explore why particular discursive patterns (demi-regularities) emerge within the realm of the empirical. This latter aspect pulls in questions of causality which, in accordance with CR, is understood as extending beyond, and being constituted by, several levels of reality. Given the analytical process required to achieve this latter methodological component, this sub-section briefly details the process applied within each of the three findings chapters respectively.

As was described in Section 3.1, CR interprets causation by differentiating between three layers of reality: The empirical, the actual, and the real. The empirical encapsulates observable experiences and perceptions, the actual refers to events and objects which impact the empirical, and the real encompasses the causal mechanisms generating the actual and empirical. The relationship between the three layers of reality is summarised in Figure 3.2 below, and forms the basis of the final framework presented in Chapter 7.1.
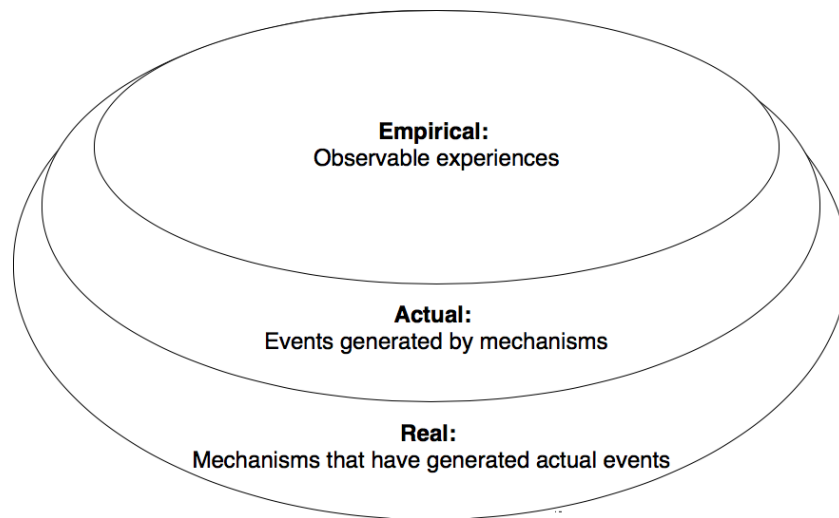
Figure 3.2 Layered CR world

In accordance with the terminology used in CR, the term 'causal' or 'generative mechanisms' refers to those tendencies or potentialities which exist within the unobservable realm of the real and which, under the right conditions, produce the experiences observed within the domain of the empirical. As noted by Sims-Schouten, Riley, and Willig (2007), the relationship between these mechanisms and the phenomena they generate is by no means direct, linear or causal; rather, it is the ways in which they interact with one another that contribute to the emergence of the empirical. This highlights an assumption underpinning this research design – that the attempts to identify and understand causal mechanisms will remain tentative. However, the tentative nature of CR does not undermine its value. Rather, it is this aspect of it, what is often referred to as the process of 'philosophical underlabouring', that underpins the value of CR in the social sciences.

Several methodological steps have been applied throughout the course of this research in order to reveal some of the generative mechanisms at play. Informed by the model outlined by Blom and Morén (2011), an iterative analytical process has been applied consisting of four steps:

(1) Observation/description (through the observation protocol and interviews)
(2) Division and sorting (through the application of both discourse and thematic analysis)
(3) Abduction/theoretical redescription
(4) Retroduction

The first step, observation and description, refers to the data collection process detailed in Section 3.5, including the collection of descriptive observation data and supporting interview and focus group data. The second step refers to the coding process referenced in Section 3.7.1 and 3.7.2, and further detailed within each of the findings chapters respectively. During this process, lesson observation data was segmented into strings of interactions in accordance with the I-R-F pattern of participation, and each interactional unit was then coded. Focus group and interview data were coded through the application of the principles underpinning thematic analysis. Examples of these coding procedures can be viewed within Section 2 of each of the findings chapters respectively.

The third step, referred to as abduction in accordance with CR terminology, refers to a process in which the empirical data were redescribed as expressions of more general phenomena. This is often defined as inference to the best explanation, referring to the process of drawing a conclusion based on the explanation that best explains a state of events, rather than from evidence provided by the premises. For example, the tendency of teachers to use nomination procedures in order to allocate turns to students liable to exclude themselves can be theoretically redescribed as the general phenomenon of assuming a sense of personal responsibility for the participation of students (See Chapter 4 for an in-depth explanation of this phenomenon). Here, the reasoning is not straight from the premise to the conclusion, however, given the evidence available, sense of responsibility serves as a plausible explanation.

The forth step, referred to within CR terminology as retroduction, creates space for thought experimentation. It allows for a process of analytically scrutinizing the conclusions brought about through adductive reasoning in order to determine if the theoretical redescriptions remain true and under what circumstances. For instance, as is described in Chapter 4, it was through this process that outcome expectancy and self-efficacy, and the ways in which they interact with a teacher's sense of personal responsibility, were identified as having the potential to shape the actualisation of equitable and inclusive turns at talk.

While the concept of generative mechanisms is well established within the natural sciences, it is less developed within the social sciences (Blom & Morén, 2011). As noted within Section 3.1, beliefs can be viewed as causal mechanisms. Social norms and values, and aspects of school culture and practice, can also serve as generative mechanisms capable of producing

the patterns of actual and empirical events of interest. Both Tikly (2015) and Blom and Morén (2010) draw on Brofenbrenner's (1979, 1993) ecological model of human development, indicating that mechanisms can exist at the micro, meso, or macro level respectively. Within this research, all three levels have been considered during the analytical process. Notably, while both Chapter 4 and Chapter 5 findings highlight the predominance of micro level mechanisms, these are embedded within organizational and societal contexts at the meso and macro levels respectively. These meso and macro level factors are drawn out to a limited extent within Chapter 6. Because one of the objectives of this piece of research has been to identify levers for change at the school and classroom level, a focus on micro level factors (more closely linked to teacher agency and choice) have been prioritised over an exploration of those meso or macro structural factors influencing teacher practice. While it extends beyond the scope of this dissertation, for additional information regarding the relationship between structure and agency within CR, please view Sewell (1992).

3.7.4 Reliability, validity, and generalizability

Given the use of qualitative methods of data collection and analysis, in conjunction with an emphasis on CR as the ontological underpinning shaping this piece of research, it is important to explicitly address issues of reliability and validity. Notably, the sampling procedures outlined above have contributed to the identification and mitigation of potential sources of bias, and have contributed to the reliability and validity of findings. The following section provides additional insight into steps taken to further support the methodological rigour upon which the findings have been based.

Reliability. Reliability, a construct which equates to notions of repeatability of research findings, has its roots within a positivist paradigm (Tao, 2013a). Nonetheless, it has clear implications for the utility of a code, supporting the potential extension of research findings. Therefore, inter-rater reliability (IRR) analysis was performed in order to assess the degree that two coders consistently identified particular codes as features of each interaction in a subsample of lesson transcripts (Tashakkori & Teddlie, 1998). Two full lesson transcripts were coded independently by two coders, myself and a colleague at the University of Cambridge Faculty of Education who underwent a training in the coding scheme.

IRR was calculated for each of the seven dimensions of analysis using Cohen's kappa (**κ**). Individual codes with minimal (<2) or null frequencies were reviewed when analysing coding comparison content so as to cross check their continued relevance. They were excluded from calculations of the overall coefficient for each of the seven categories of analysis in order to ensure the coefficients obtained for each category were not artificially inflated by null frequency codes, nor disproportionately affected by codes with minimal frequencies. The resulting estimate of Cohen's kappa averaged across the seven categories is 0.85, indicating almost perfect or perfect agreement in accordance with the guidelines put forward by Landis and Kock (1977), and an acceptable level of agreement in accordance with the more conservative cutoff values suggested by Krippendorff (1980) (Hallgren, 2012). When clustered at the category level, as can be seen in the table below, the overall unweighted Kappa ranged from 0.73 to 0.99. Upon analysis of coding comparison content, all individual codes with an IRR of 8.0 or below underwent extensive analysis in order to identify the factors contributing to low IRR and make changes where required.

Table 3.8
Inter-rate reliability using Cohen's Kappa (**κ**).

Category	Unweighted Kappa
Initiating Move	0.8
Student Selection	0.97
Student Gender	0.99
Correctness	0.88
Teacher Response	0.85
Teacher Follow-Up	0.73
Other Interactions	0.81

The analysis revealed that for several codes, IRR was relatively low due to inconsequential differences in inter-rater coding selections, whereby one coder extended several references to incorporate additional contextual comments the other coder had omitted. While this variation in coding selections does have implications for how much contextual information is provided in a given reference, this source of disagreement does not impact the reliability of the scheme given its intended application. Furthermore, the impact of this incongruence was mitigated with relative ease by establishing clearer conventions for transcribing and coding contextual comments. Similarly, an analysis of codes applied within the Correctness of Student Response category indicated that, particularly during extended interactions between a teacher and one student, there were discrepancies between coders. One coder tended to select only

one code based on the correctness of the original student answer. The other coder tended to code both the correctness of the original answer and any revised answers provided by the same student during the interaction. In analysing this incongruence, it became clear that the use of codes per interaction within this category should be limited to a maximum of one, a parameter not established prior to the analysis of inter-rater reliability. This decision resulted from a consideration of the purpose of this category of codes, which aims to disaggregate how a teacher responds to initial student responses perceived to be correct, partially correct, or incorrect, and not the correctness of the student response itself. The descriptions of several codes were revised as a result of the process of establishing inter-rater reliability, which highlighted the need to better distinguish between seemingly similar codes, and ensure that each code would be applied to advance particular research objectives.

All individual codes with a coefficient less than .80 underwent a process of analysis and revision. The analysis of coder comparison content, and subsequent revisions, enabled me to retain all codes in their revised or original form. The process of assessing sources of disagreement and initial coding patterns served as an important strategy, supporting methodological coherence throughout the research process. It enabled thorough scrutinization of the relationship between my research questions and core components of my method, enabling modification of analysis procedures where necessary, and, as noted by Morse, Barrett, Mayan, Olson, and Spiers (2002) bolstering methodological rigour.

Regarding processes of thematic analysis applied to interview and focus group data, as a function of the nature of the data itself, the coding process, timeline and researcher availability, it was not logistically feasible nor practical to have multiple researchers code the data. Therefore, while the themes identified through processes of thematic analysis may be at the manifest or latent level, thematic analysis was largely applied at the manifest level (directly observable within the data), reducing the likelihood of inconsistencies in judgement (Boyatzis, 1998).

Validity. Notions of validity, which, like reliability, has its roots within positivistic philosophy, has often be conceptualised as the 'truthfulness' of findings (Whittemore, Chase, & Mandle, 2001). As noted by Tao (2013a), this definition is ontologically inappropriate for research carried out in accordance with the CR tradition, as it implies that there is a possibility of objectively measuring an external or independent reality. As a result of the

ontological positioning from which notions of validity have emerged, some within the qualitative research strand have come to reject the relevance of validity. In response to this rejection, Johnson (1997) delineates between three types of validity, descriptive, interpretive, and theoretical, which can be achieved in qualitative research and which are not incongruent with notions of the layered world underpinning CR.

Firstly, Johnson (1997) highlights what he refers to as descriptive validity, defined as the factual accuracy of the account as reported by the researcher. As described by Cotton et al. (2010) and Cohen et al. (2011) respectively, observational methods and direct transcription have a strong claim to validity. Because they are used to investigate natural settings, rather than artificially induced contexts, and because they give a first-hand view of events as they unfold, rather than a report or subjective interpretation of actions, they support descriptive validity. In addition, the development of thematic and discursive codes from manifest content rather than an emphasis on latent content helped to ensure the maintenance of descriptive validity.

Secondly, Johnson describes interpretive validity, defined by the degree to which participants' perspectives and experiences are accurately interpreted and reported. As noted by Johnson 'accurate interpretative validity requires that the researcher get inside the heads of the participants, look through the participants' eyes, and see and feel what they see and feel' (p. 285). One tangible way in which this was supported was through the use of stimulated recall interviews, whereby teachers were empowered to describe their own thinking during instruction and to articulate the underlying assumptions and perceptions informing their practice. In addition, the use of low inference descriptors leveraging teachers' actual language has supported the accurate portrayal of teachers' viewpoints, thoughts, feelings and experiences. Direct quotations from both participants and my field notes are presented in the findings chapters, creating access for readers to participant accounts as well as researcher interpretations.

Thirdly, theoretical validity is defined as the degree that a theoretical explanation developed from a research study fits the data (Johnson, 1997). To support theoretical validity, I prioritised the identification of negative case sampling, which entailed a process of 'locating and examining cases that disconfirm the researchers' expectations and tentative explanations' (p. 283). As previously described, maximum variation sampling was utilised in order to

uncover the full spectrum of teacher practices, providing the context necessary for the emergence of conflicting or disconfirming evidence. This sub-sample selection created space to examine cases that contradicted my initial explanations about teacher practices, as will be discussed in chapters 4-6.

Finally, external validity, also referred to as generalizability, refers to the extent to which the results of a study can be generalised to other people, settings, or situations. As noted by Pierson (2008) a qualitative study alone could not test the relationship between discursive patterns and student inclusion in a way suited for making broader claims and inferences. The objective of my research, in accordance with the CR position, is not to achieve statistical generalizability, but rather, generalization through the identification of empirical 'demi-regularities' and 'mechanistic explanations' that contribute to theoretical clarity (Tsang, 2014). The explanatory framework established through the research process is not meant to generalise over a population of Tanzanian teachers. The research activities described herein reflect an attempt to elucidate specific mechanisms which have implications for processes of inclusive and equitable teaching and learning, as situated within the context of specific schools and at specific moments in time. The aim is to unpack the black box of certain teacher practices in order to identify appropriate school-based measures supporting the translation of international education objectives into classroom-based realities.

3.8 Data collection and analysis: The lived experience

The following sub-sections provide insight into several aspects of the data collection and analysis process. It includes a description of how questions related to the ethics of school-based research have been addressed, the implications of, and approach to, researcher positionality, and a reflection on some of the methodological issues that emerged during the data collection and analysis process.

3.8.1 Research ethics

Social science research in school settings inevitably raises ethical concerns related to researcher-participant interactions, confidentiality, informed and voluntary consent, safeguarding the interest of all participants, and reciprocity (Israel & Hay, 2006). Because the methods I employed in my research were dependent upon the quality of interaction between myself and the research participants, the way in which I established relationships and

engaged with participants had substantial implications for my findings (Lipson, 1994). I engaged Camfed as one of two local partners, working with Camfed field staff to negotiate access to school sites and establish initial relationships with participating teachers. Throughout the data collection process, the strong and trusting relationships Camfed has established with their partner schools supported my ease of access. However, my affiliation with Camfed also created some confusion as to my identify. Because Camfed is often associated with material provisioning, I had to dedicate time and attention to clarifying expectations, ensuring that school personnel fully understood that my association with Camfed did not mean that I had the capacity to provide financial or material resources.

When engaging all participants, I prioritised demonstrating sensitivity, abiding by local cultural norms in my appearance, language, and behaviours, and maintaining an awareness of my perceived positionality. I prioritized processes of obtaining informed consent, working with head teachers to arrange opportunities to introduce my research objectives with all school professionals through a teatime meeting. During these meetings, I described the purposes of my research and, through a thorough discussion, worked to ensure all school-based professionals, regardless of their level of participation, fully understood the nature of my research, the character of their potential involvement, and the potential mechanisms for the dissemination of results, ensuring all school personnel had the information required to make a decision regarding individual participation. The use of a staff meeting helped me to address issues of equality, enabling me to share information about my activities with all teachers, and work to mitigate potential exclusionary forces that can emerge when engaging some rather than all teachers in more in-depth research activities. Prior to any particular research activities, this procedure was repeated, ensuring that each participant fully understood that participation was voluntary, and was given an opportunity to ask additional questions or withdraw participation (Lipson, 1994). At the end of any given research activity, I created time and space for participants to review their own audio and video files. All participants were invited to withdraw data, and this offer was taken up in one instance, and the observation repeated on another day.

I engaged teachers as gatekeepers in order to gain access to students during classroom observations. Upon entering any class, I coordinated with participating teachers to introduce myself, provide students with a basic overview of my research purposes and activities, and clearly articulate the voluntary nature of their participation. I provided a brief demonstration

of the video technology, and used a thumbs up/down method to ask students permission to use the video-recording devices within the classroom. While, in no instance did students opt out of participation, I attempted to make clear that any students who did not wish to participate or be recorded could state so publicly or privately. Additionally, I maintained an awareness of the potential negative implications of teacher's watching their student's behaviour during stimulated-recall interviews, and the potential impact this could have in terms of punishment for student behaviours not aligned with teacher expectations. In order to mitigate potentially negative impacts, I sought to highlight positive student characteristics, and to introduce and encourage positive discipline where discussions with teachers indicated that they perceived punishment to be necessary.

Homan (2001) notes that often, the nature of the data may be unknown even to myself as researcher at the time of the recording. Therefore, informed consent can serve as a poor safeguard of privacy. Throughout analysis, I maintained a sense of moral responsibility to ensure that the data has been used in reasonable ways that protected the confidentiality of all participants. Pseudonyms have been used to protect the anonymity of all participants and schools, and generic titles have been used to protect the anonymity of key informants.

I have followed all necessary processes for obtaining approval for my research activities, including gaining official approval from the Tanzanian government. This ensured my research aligned with the expectations of participants who anticipated that their involvement was approved of by official Tanzanian bodies. While the COSTECH and BERA Ethical Guidelines, as well as the University of Cambridge ethics checklists, have formed the foundation of my approach to ethical considerations, I have sought to move beyond regulatory compliance through a process of reciprocity (Lipson, 1994). My research focus has been informed by discussions with Tanzanian practitioners and Camfed employees in order to help ensure the relevance of my research area to the participants and hosting organization involved in the study (Stutchbury & Fox, 2009). Through processes of dialogue inherent in participant interviews and focus group activities, I believe that my research activities have contributed to the knowledge base of teachers. The opportunity to watch and reflect upon their own teaching methods often appeared to empower teachers. While additional opportunities for reflection and support are required in order to advance teacher skills as reflective practitioners, and empower them to critically analyse and refocus their own ideas and practices, it is believed that these research activities served as an important

first step. Finally, I will prioritise the sharing of findings not only in a form appropriate for academic circles, but in a way that findings can be appropriated by Camfed and their partner schools. I aim to coordinate with Camfed to respond to relevant findings, working with them in the identification of opportunities and potential interventions supportive of inclusivity. These priorities align with the emancipatory approach to research underscored by CR (Edwards et al., 2014), whereby research is oriented towards positive impact.

3.8.2 Positionality

Qualitative research is dependent upon interactions between researcher and participants. As such, researcher positionality has major implications for qualitative data generation, particularly in international research whereby the researcher is starkly 'other' (Milligan, 2016). Jakobsen (2012) notes that how respondents perceive power relations between themselves and the researcher stems from who they perceive the researcher to be, and it is their perceptions that determine their perceived stake in presenting themselves and the topic in a certain way. In communities where foreigners are associated with aid, as is the case in my research, respondents are particularly likely to provide responses to questions that they think will attract external assistance (Jakobsen, 2012).

My positionality, as a Caucasian, female, former teacher, attached to an elite British university and an international nongovernmental organization, invariably carries certain realities regarding power, positionality and identity. Srivastava (2006) notes that researchers can selectively use certain attributes to address social positioning vis-à-vis different respondents. While some of my attributes are immutable (i.e. gender) others fall into more of a "grey zone" and were therefore leveraged in order to mediate my relationships with research participants. During pre-piloting, my identity as a married woman helped me to establish a trusting and open relationship with several female teachers. Male teachers tended to prefer my identity as a former teacher tutor. Opening discussions in Kiswahili helped me to reduce cultural gaps between myself and teachers, whereas government officials responded more willingly to English, the language of Government. Throughout my field work, I remained aware of, and actively navigated, chasms between my positionality vis-à-vis the participants, and attempted to achieve a desirable balance of power that created space for trust and cooperation. For additional information regarding some of the learnings that

emerged as a function of notions of researcher positionality and status as a non-African outsider, please view the final discussion Chapter 7.2.

3.8.3 Challenges, risk mitigation strategies, and learnings from the methodological process

The final subsection within this chapter provides insight into some of the key challenges and opportunities that emerged during the data collection and analysis process. Additional core learnings are highlighted within the final discussion (Chapter 7).

Building on the notion of positionality detailed above, a clear concern that emerged at the outset of data collection was the potential tension resulting from attempts to engage, and develop meaningful relationships with, both teachers and students simultaneously. Through my initial pre-piloting activities it became clear that engaging teachers in in-depth qualitative work implied a certain positionality within the social fabric of the school that had the potential to hinder my capacity to establish trusting relationships with students. Likewise, engaging students directly was often interpreted by teachers as undermining their authority, and created cumbersome barriers to the development of trusting and friendly relations between myself and participating teachers. Given these dynamics, student voice has been strategically omitted from the scope of this research.

In terms of logistics, initial and ongoing access to schools often presents challenges in education research. In order to mitigate the likelihood of potential challenges related to school recruitment and retention, I established a formal partnership with Camfed Tanzania and the University of Dar es Salaam (See Appendix 1), and engaged in an ongoing dialogue with local government authorities and school heads. As noted in Section 3.8.1, through the development of meaningful relationships with these stakeholder groups, I was able to secure school involvement by leveraging notions of transparency and reciprocity. The same risks are possible with teachers, particularly maths teachers, who are often assigned multiple cohorts in order to accommodate for teacher shortages. In an effort to reduce the likelihood of teacher dropout, I hosted a series of preliminary meetings at each school. These meetings, which were held with all teachers at the school in a group setting, and with individual teachers on a one-to-one basis, provided a clear avenue for individual teachers to choose to opt out of research activities prior to the onset of data collection. As a result of these preliminary meetings, participation was framed as desirable, and rather than working to mitigate the risk

of drop-outs, this dynamic increased the need to volunteer extra time at each school in order to work with teachers and observe lessons not included within the scope of this study.

Teachers struggled to engage in productive reflective dialogue required to support the efficacy of stimulated recall interviews as a data collection method. While both the format and specific questions underwent two rounds of piloting and revision, for the vast majority of teachers, these challenges were not effectively overcome during the data collection process. Analysis of interview data and fieldnotes suggests that supportive mechanisms were required to better foster teacher reflexivity, opening new doors for the design of professional development programming. I am currently engaging in a collaborative project with a local NGO in Tanzania in order to develop a peer learning programme that can enable teachers to develop capacities as reflective practitioners while simultaneously deepening our understanding of the tools and constructs teachers currently rely upon in order to reflect on their practices. The project will contain both a training and research component, deepening our understanding of current practice and teacher thinking while providing essential professional development opportunities.

One of the major challenges I have encountered in data analysis relates to the application of Critical Realism. While, ontologically, this philosophical approach aligns with my worldview, operationalising it proved to be particularly challenging. In particular, identifying validity criteria for determining which causal mechanisms most accurately and consistently accounted for my observations proved to be an elusive process. Through consistent and targeted engagement with the literature, the use of analytical memos, and the process established by Blom and Morén (2011), my analytical process supported the identification of several causal mechanisms influencing teacher capacity to foster processes of education inclusion. Additional quantitative research is now required in order to build upon these findings in systematic ways. This is further explored in the final discussion (Chapter 7).

Ultimately, I came to this research with substantial experience working within the Tanzanian education system. My knowledge and informal observations were treated as an auxiliary source of data, and I have worked to be explicit about my "cultural observations" (Tashakkori & Teddlie, 1998) throughout the analytical process. This explicitness has helped to ensure clarity and consistency in my interpretation of results, adding strength to the quality of my analysis. The following three chapters provide in-depth descriptions of my core findings.

Each of the findings chapters contains four elements: A targeted review of literature, an in-depth explanation of the analytical process, a presentation of findings, and a brief discussion.

Chapter 4. Speakers and Silent Ones: Teacher turn-allocation procedures and the inclusion of student voice

Teachers must be certain [that] all [student] voices can be heard.
Those teachers who make students to be active,
make each and every one of those students to be included.
(Key informant interview, 02-05-18)

As stated within the review of literature, inclusive pedagogy is conceptualised as *a perpetual process of increasing participation and decreasing exclusion in teaching and learning by consistently recognizing, valuing, and responding to all students' learning needs*. Drawing on socio-cognitive theories of human behaviour, and sociocultural theories of learning, this chapter is premised on the notion that learning is intrinsically social and communicative. It builds upon the idea increasingly acknowledged by researchers, practitioners, and policy makers worldwide that engaging students as active participants is central to sustaining student access to the curriculum and ensuring student inclusion in classroom life.

Participation, as defined herein, does not incorporate a consideration of the qualities of student-generated discourse, but rather, is limited to the opportunities created for student voices to be heard and acknowledged. It is important to note that student participation serves as only one of many possible points of entry into processes of educational inclusion, and is far from the only relevant proxy. However, it does provide a practical site for an initial examination of teacher practice, creating space to consider existing pedagogical practices in the context of Tanzanian Ordinary Level secondary school classrooms, and the implications of these practices for processes of educational inclusion.

There are several guiding questions underpinning the methodology and subsequent findings presented in this chapter, including: What recurrent patterns of behaviour (demi-regularities), and deviations therein, can be identified within the ways in which teachers distribute opportunities for student-generated talk during interactive whole class instruction? What are the implications of these patterns in terms of teacher capacity to foster inclusive patterns of participation? What does an analysis of these patterns, and deviations therein, reveal in terms of the generative mechanisms underpinning them? Ultimately, this chapter explicates how differences in student access to classroom-based participation are shaped in relation to differences in teachers' instructional practices. In addition, it provides insight into particular conceptual resources that can contribute to causal explanations for the observed differences

in teacher behaviour. As with all three findings chapters, this chapter contains four elements: a targeted review of literature, an explanation of the analytical process, a presentation of findings, and a brief discussion.

4.1 Including student voice: An overview of the literature

Extant research highlights the relationship between student participation, learning, and inclusion (Shepherd, 2014; Van Es et al., 2017; Wager, 2014). As noted by Wager (2014) in her descriptive analysis of equitable pedagogy and student participation 'as teachers provide access for children to participate, they are providing access to learning' (p. 313), both of which are essential to processes of educational inclusion in the classroom. Yet, different students have very different educational experiences within the same classroom, and research indicates that these divergent experiences often emerge from the ways in which opportunities to participate are distributed (Fritschner, 2000; Shepherd, 2014; Wager, 2014; Webb et al., 2014).

Burns and Myhill (2004) note how, in most social situations involving classroom-sized groups, there are a considerable number of individuals reluctant to volunteer to speak. Often, it is those who are willing to participate that are ultimately included and thrive. The relevance of this insight is reinforced by the findings presented by Jukes and Gabrieli (2018) who, in the context of Tanzania, highlight the prominence of what they refer to as *courageousness* as a core individual competency enabling student inclusion into various dimensions of classroom life. Their research indicates that teachers perceive that students who are courageous are able to engage within, and benefit from, new learning activities, whereas students who are more timid or reluctant are more likely to become excluded. Despite this reality, researchers in a diversity of contexts have documented the tendency among teachers to focus on the participation and learning of the class as a whole (Jukes & Gabrieli, 2018; Subban, 2006; Wager, 2014). As a result, less attention may be given to those students who are less likely to voluntarily participate, or to the potential influence of teachers' turn-allocation procedures in directing participation.

Given these realities, it is necessary to consider the role of the teacher in promoting student voice and sustaining inclusive opportunities for students' participation. Using qualitative methods, Van Es et al. (2017) identified several instructional practices that enable teachers to

close participation gaps within their classrooms in the United States. In their analysis, the authors note the importance of enabling students to 'take up space' in the classroom. By employing techniques to ensure a range of student voices are heard and acknowledged, teachers are able to foster feelings of safety and trust essential for processes of inclusion. In the context of teacher-fronted, whole class instruction, Mehan's (1979) model of classroom floor-allocation offers a robust heuristic for examining the techniques teachers use to maximise opportunities for equitable and inclusive participation. Mehan's three-pronged taxonomy is premised upon the reality that in teacher-directed lessons, turn-allocations occur almost exclusively through processes of teacher selection. He identified three discrete turn-allocation procedures: Individual nomination, invitation to bid, and invitation to reply, each of which have implications for a teacher's capacity to maximise the diversity of student voices included in classroom discourse.

Individual nomination is defined by a process in which a teacher selects a particular student to speak without requiring that the student first volunteer for the turn. Shepherd (2014) highlights the potentially equitable nature of this allocation procedure, which capacitates teachers by positioning them to assume responsibility for the participation of all students. While individual nomination was the primary floor allocation method in U.S classrooms in the 1970s, more recent research suggests that invitation to bid and invitation to reply have become more dominant both in the U.S. in particular, and in a diversity of classroom contexts around the globe (Dallimore et al., 2013; Hornberger & Chick, 2001; Lemke, 1990; Pontefract & Hardman, 2005; Rajab, 2015; Shepherd, 2014). Invitation to bid involves an allocation process whereby a teacher extends the opportunity to respond to all students, and then nominates one student who has voluntarily bid. Similarly, invitation to reply creates space for any and all students to respond, though without first being explicitly awarded the floor. Invitation to reply therefore typically solicits a choral response from multiple students in unison rather than one provided by an individual.

As aptly noted by Shepherd (2014), by allowing students to self-select to bid for a turn or reply to a (choral) invitation (or not), these allocation strategies support what Fennema (1990) refers to as equity of opportunity, meaning that all students have the same opportunity to bid or reply respectively. Yet, because these turn-allocation procedures tie the distribution of turns at talk to student initiative (or what Jukes and Gabrieli (2018) refer to as courageousness), they do not necessarily promote an equitable or inclusive learning

experience for those less inclined to voluntarily participate. Shepherd's (2014) research suggests that invitation to bid in particular is often leveraged by teachers in order to direct turns toward students who are both willing and able to provide 'correct' responses. Her qualitative analysis suggests that while this method may enable teachers to rapidly solicit preferred responses, it is not necessarily conducive to more inclusive goals of supporting an equitable distribution of opportunities to speak. The analysis presented by Hornberger and Chick (2001) builds upon this finding, highlighting how invitation to reply enables teachers to construct the conditions required to signal student participation while simultaneously concealing that which they, and their students, do not know.

Analysis of the literature presented above indicates that a consideration of several beliefs maintained by teachers, including sense of personal responsibility, self-efficacy, and outcome expectancy, have the potential to shed light on observed differences in teacher turn allocation behaviours and the ultimate distribution of turns. A consideration of the analysis presented by Shepherd (2014) and Hornberger and Chick (2001) suggests that both invitation to bid and invitation to reply position teachers to abdicate responsibility for the participation of students less likely to include themselves. These strategies position teachers to react to the uptake of turns by the students themselves while simultaneously enabling them to maintain relatively tight control over the content of classroom discourse. Contrastingly, individual nomination procedures capacitate teachers, positioning them to create 'space' for the participation of students less likely to include themselves (Dallimore et al., 2013; Shepherd, 2014). Importantly, as noted by Good (1970), by calling on students who typically bid for the floor (and provide preferred responses), nomination procedures can also be used to perpetuate exclusion. In these instances, just as with invitation to bid and invitation to reply, turn-allocation procedures can be understood as a mechanism enabling teachers to maintain control over the nature and content of student responses rather than as a mechanism to support inclusionary patterns of participation.

This review of literature indicates that the ways in which teachers conceptualise and reason about student participation has substantial implications for the ways in which they attempt to foster more or less inclusive participation patterns. Sense of personal responsibility as a belief or reason is seemingly underpinning the selection of floor allocation strategy, though is not explicitly addressed within this body of research. Implicit within much of the literature examining teacher discourse and student turn-taking, the use of nomination appears to be

indicative of a teacher's tendency to assume responsibility, whereas the use of invitation to bid and invitation to reply is seemingly reflective of a tendency to assign responsibility for participation to the students themselves. The research presented herein, and more broadly within the field of educational inclusion, also draws attention to how teacher practice is influenced by factors related to differences in teacher self-efficacy (Bandura, 1997), and outcome expectancy (Gibson & Dembo, 1984; Peterson, Rubie-Davies, Osborne, & Sibley, 2016; Rubie-Davies, 2009). These constructs offer a pathway for better understanding the mechanisms underpinning teachers' instructional practices, and therefore demand attention.

For the purposes of my work, I adopt the definition of personal responsibility developed by Lauermann and Karabenick (2013), defined as a 'sense of internal obligation and commitment to produce or prevent particular outcomes, or that these outcomes should have been produced or prevented' (p. 13). In their work in the meaning and measure of teachers' sense of responsibility, Lauermann and Karabenick (2013) note the importance of identifying the specific domain within which responsibility is assumed. While not included as one of their targets, the emphasis herein is on inclusive participatory patterns (i.e. for supporting equitable opportunities for student participation that do not result in the systematic exclusion of some students).

While clearly relevant given the concerns presented by Good (1990), Shepherd (2014), and Hornberger and Chick (2001), teachers' sense of responsibility to produce inclusive participation patterns does not necessarily imply that teachers have confidence in their capacity to do so, and vice versa (Lauermann & Karabenick, 2013). Florian (2014) hypothesises that teachers must believe they are capable of teaching all children, and in instances whereby teachers do not believe that they are capable, they do not take responsibility. This underscores the potential importance of self-efficacy as a construct that may further elucidate teacher practice in relation to the patterns of participation fostered within the classroom. At the most pragmatic level, the hypothesis underpinning this major research strand is that if teachers believe they are capable of supporting the participation of all learners, they will be more likely to leverage strategies positioning them to do so. Yet, Werning et al. (2016) highlight that the influence of a deficit view maintained by teachers in terms of student capabilities. As they note, this is often entrenched in pre-service teacher professional development in low-income country contexts, and can have sustained negative impacts on teachers' beliefs in the capacity of students to participate and learn. Accordingly,

it is not the teacher's sense of efficacy in their own capabilities per se, but rather, their confidence in the potential capabilities of their learners that may influence teacher attitudes and practices. This hypothesis begins to merge concepts of self-efficacy with outcome expectancy, defined herein as the degree to which teachers believe that students can be taught, given such factors as: family background, personal characteristics and school conditions (Gibson & Dembo, 1984). The following sections draw on the typology presented by Mehan (1979), as well as research investigating the different perceptions underpinning teacher practice, in order to consider the ways in which turns are distributed and safeguarded, the mechanisms underpinning these practices, and the implications for processes of educational inclusion.

4.2. Data analysis

During the initial phases of data collection and analysis, which entailed a process of repeatedly viewing lesson observation data, producing initial transcripts, and identifying and segmenting strings of interaction, it became evident that whole class teaching is the predominant instructional approach utilized across all 44 observed lessons. While this term encompasses a variety of pedagogies, ranging from monologic teacher talk to highly interactive dynamics whereby student participation is central, the focus herein is on whole class interactive teaching, as these are the instances in which opportunities for inclusion or exclusion are most observable. A review of teacher-student interactions embedded within whole class teaching revealed that teacher turn-allocation procedures align with those identified in the empirical analysis of classroom talk established by Mehan (1979). Analysis therefore combined the ethnographic approach utilised by Mehan to examine teacher allocation strategies with elements of discourse analysis and thematic analysis. This combination supported an exploration of how particular turn-allocation strategies enable or constrain teachers in their capacity to foster inclusive patterns of participation, as well as several potential generative mechanisms underpinning teacher use of particular strategies.

Commencing with the application of Mehan's (1979) system required isolating all teacher initiating moves targeting either the whole class or an individual student during whole class teaching. Applied to the sub-sample of 12 lessons, this resulted in a corpus of 740 teacher solicitations to be unpacked and analysed. In order to isolate turn-allocation procedures, both the original video-based data and transcriptions were utilised, creating space for a more

nuanced analytical process. Some of the coding (in particular, indexing by speaker) was applied directly to the video source timelines within NVivo, supporting a process in which different allocation strategies could be cross-indexed against the participation of particular students, as is further detailed below.

Of the 740 interactions observed across the sub-sample of 12 lessons, 408 teacher allocation moves were directed at, and solicited a choral response from, some or all students in unison, and were therefore coded as 'invitation to reply'. The remaining 332 teacher allocation moves directed at individual students were then disaggregated to distinguish between turns allocated through nomination and invitation to bid respectively. All instances in which a teacher proactively identified a particular student to speak, without requiring that the student first bid, were coded as nomination. All instances in which a teacher reactively selected a student to respond from those who had bid for the floor, indicated through a process of voluntary hand-raising or snapping, were coded as an invitation to bid. Instances in which teachers extended interactions with the same student, holding the floor without reallocating turns, were coded as expansions and not considered as an additional turn-allocation. Examples of each of the three allocation strategies are displayed in Figure 4.1 below.

Invitation to Reply	Teacher:	You heard how Nyerere was the founder of the nation. Isn't it?
	Students:	Yes. ((Chorally))
Nomination	Teacher:	How did you get to know? ((Directed at a student who did not bid))
	Student:	From the old people.
Invitation to Bid	Teacher:	Who can tell me how many types of main verbs we have? Yes. ((Points to student with his hand raised))
	Student:	Two.

Figure 4.1 Example of invitation to reply, nomination, and invitation to bid

Figure 4.2 shows the total number of instances and relative frequency of each of the three turn-allocation strategies. The analysis reveals the predominance of invitation to reply in the sub-sample of twelve lessons. Given the brevity of these interactions, which often solicit a simple one-word response as a function of the nature of the solicitation, it is not surprising that this style of interaction is predominant. Notably, it does have a limiting impact on the knowledge or understanding that students are able to demonstrate, as is further explored in Chapter 5. Notable too is the limited use of nomination, which accounts for only 9% of all

turn-allocation procedures. This trend indicates that nomination is not a common strategy used to initiate teacher-student interactions across the sub-sample.
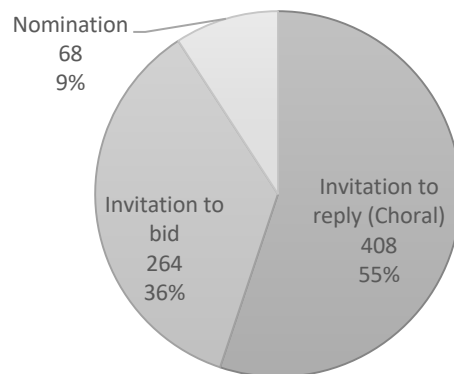
Figure 4.2 Teacher turn-allocations (total number of instances and percentages respectively)

While the research presented within the literature review (Section 4.1) explicates the differential implications of particular allocation strategies for processes of equity and inclusion, such relationships were not assumed within my research. One of the aims of the analytical process was to generate empirical evidence exploring the relationship between processes of educational inclusion and the use of particular turn-allocation strategies in the context of the classrooms included in this study. Therefore, in addition to identifying the turn-allocation procedure used to initiate student talk, each interaction between a teacher and an individual student was indexed by speaker. This process enabled the tracking of opportunities for talk allocated to different students within a given lesson. Through this tracking process, it became possible to determine how nomination and bidding contributed to the diversity or uniformity of voices heard, distinguishing between nomination moves intended to encourage the participation of students less inclined to talk, and those that, as noted by Good (1970), exacerbated inequities by re-allocating turns to the same small group of active students. As a result of this coding process, it became possible to determine not only the number of interactions, but the total number of students who did and did not engage in individual student-teacher interaction during whole class teaching. While attempts were made to further disaggregate invitation to reply based on the proportion of student uptake, this method of analysis was ultimately discarded as a result of difficulties in reliability.[25]

---

[25] While the instances in which only one or two student voices could be heard were apparent, any greater degree of participation (i.e. 25% versus 75% or 75% versus 100%) was not reliably distinguishable due to the positioning of the recording device, the classroom layout and class size.

Of the 332 discrete allocation moves directed at individual students across the sub-sample of 12 lessons, a total of 176 different students were allocated individual turns through a combination of nomination and bidding. Figure 4.3 places these figures in context, illustrating the percentages of students who did and did not speak through individual teacher-student interactions during whole class teaching in each of the 12 lessons. It shows massive variability in the proportion of students allocated turns across lessons, ranging from a minimum of 2% of students to a maximum of 87%, with an average of 30% of students allocated individual turns across the 12 lessons. Some of this variation emerged as a function of pedagogy, wherein, in some lessons, classroom discourse was dominated by the teacher, with fewer opportunities for any student-generated talk. Variation also stems from the tendency to allocate turns to the same small group of students repeatedly. This tendency supported a highly interactive lesson whereby classroom discourse was dominated by a small number of students, limiting the diversity of student voices heard. The analytical process also created space to identify instances in which teachers leveraged strategies to support inclusive goals, explicitly engaging new voices in classroom discourse. These dynamics contributed to the construction of the analytical framework displayed in Figure 4.5 (See Section 4.3) which reveals the relationship between particular patterns of teacher behaviour and student participation.

During the above coding process, it became apparent that the correctness of student responses could contribute to the turn-allocation process. Analysis indicated that some interactions could be characterised by the use of turn-allocation procedures that appeared to enable teachers to avoid dis-preferred responses.[26] These strategies contribute to processes of exclusion, as teachers actively avoid calling on students who are not likely to be ready with the specific sought-after response. In order to examine this hypothesis within the data, an additional coding scheme was developed. Student responses were coded as incorrect, partially correct, or fully correct, based on an interpretation of the subsequent teacher response.

---

[26] Aligning with the definition put forward by Newman, Griffin, and Cole (1989) in their analysis of teacher-student interaction and learning, any contribution that deviated from the 'correct' knowledge the teacher sought to impart is referred to as dis-preferred.
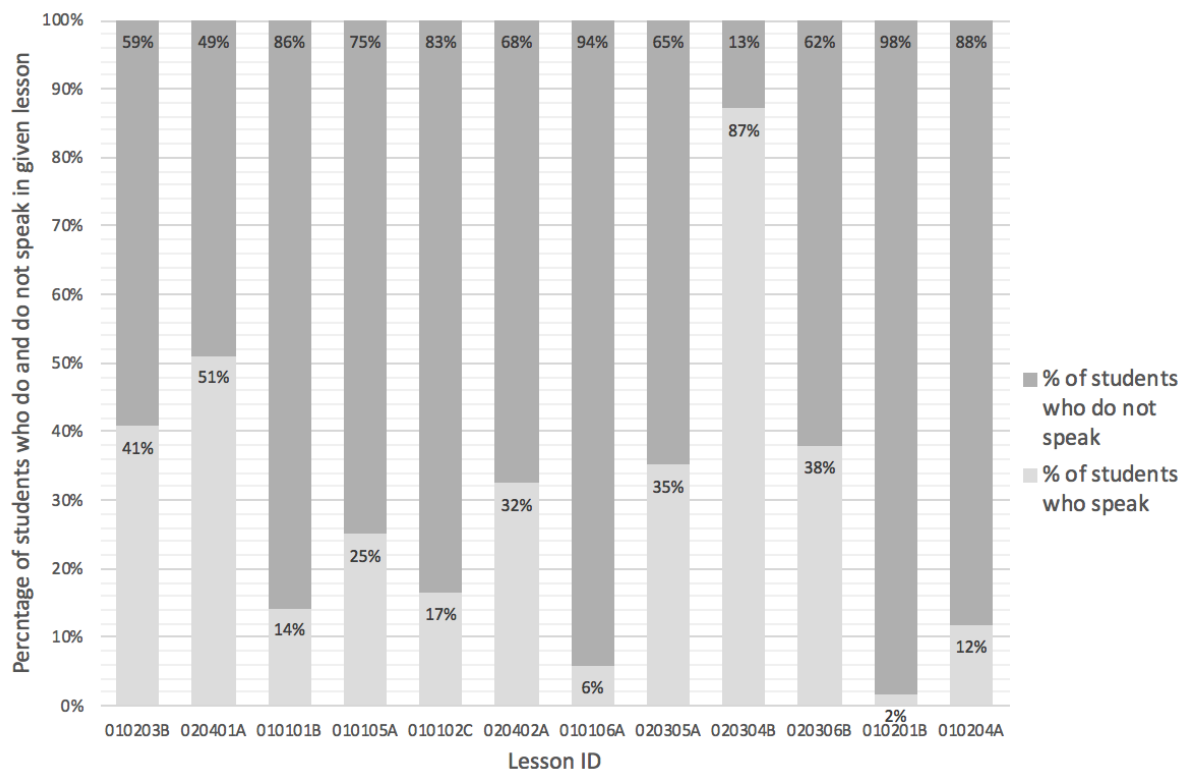
Figure 4.3 Percentages of students who do and do not engage in discursive interaction with the teacher during whole class teaching within a given lesson

Instances of observable student self-exclusion, exhibited through the practice of remaining silent, and therefore opting-out of allocated turns, were coded simply as non-response, with no attributed degree of correctness. This coding process required expanding the unit of analysis from the teacher Initiating move alone, or in conjunction with a student Response, to the full length of an I-R-F interaction. This expansion allowed for the identification of allocation strategies leveraged to preference students who tended to provide standard 'correct' responses, and instances in which teachers persisted in engagement with, or returned to, students who deviated from typically preferred responses. Through this coding scheme, it became possible to determine not only how particular turn-allocation procedures could be utilised to contribute to the diversity or uniformity of voices heard, but to shed light on the ways in which teachers attempted to safeguard the allocation of turns to students when encountering dis-preferred outcomes. Defined as those outcomes in which students provide incorrect answers, or instances in which teacher solicitations are not reciprocated by a student response, analysis of these instances shed light on teacher displays of persistence essential for effectively expanding participation.

The development of this coding scheme served a pragmatic purpose, enabling the disaggregation of dense lesson observation into manageable empirical slices more suitable for the identification of patterns across the data. As was detailed in Chapter 3 (See Section 3.7.1), IRR was calculated using Cohen's kappa (κ). For the turn-allocation procedure (referred to as student selection), the overall unweighted Kappa is 0.97, and for the correctness of the student response, the overall unweighted Kappa is 0.88, indicating almost perfect agreement in accordance with the guidelines put forward by Landis and Kock (1977). Because speaker tracking was only coded within the video data, and given the highly demanding and low inference nature of this coding system, IRR was not utilised for this dimension of the coding scheme.

In order to generate additional insight into teacher perceptions of the distribution of turns, and related issues of equity and inclusion, teachers' explicit classroom-based discourse about patterns of student participation were also isolated and analysed. Applying an inductive and exploratory approach, this analysis resulted in the identification of three main types of communicative acts: Designative, cooperative, and denunciative. A designative act is defined herein as a targeted discursive act aimed at soliciting the participation of particular student groups. Such acts were communicated explicitly through statements such as 'now I want a girl' [010106A], [27] 'boys only' [020402A], or 'back-benchers' [020304B]. Through these acts, teachers demonstrated a clear awareness of, and sense of responsibility for, the non-participation or potential exclusion of particular groups of students. Cooperative acts are defined as teacher statements directed at the class as a whole with the aim of encouraging an overall increase in student bidding. Several teachers employed statements encouraging students to feel more comfortable with the act of participating, making statements such as 'be free' [010203B], 'just try' [020402] or 'there is nothing to fear' [010102B]. As opposed to the designative acts detailed above, whereby a teacher held the floor for particular groups of students, cooperative acts sought to empower all students to assume increased responsibility for seeking the floor. Denunciation acts, public condemnation directed at specific individuals or groups of students accused of non-participation, were used in an attempt to discourage or undermine non-participation. Such acts were typically made in a mocking or aggressive voice, and included statements such as 'She [active student] knows the English very well and

[27] Within-text extracts are marked following the approach employed in Hofmann and Ruthven (2018). The first two digits refer to the district (01-02), the second two district refer to the school (01-04), the third two digits refer to the subject area and form (01-06), and the final letter (A-C) refers to the specific lesson or interview.

makes the sentence here, the rest of you, you only sit' [020401A] or 'Have you become stupid?' [010101B]. Designative acts were typically embedded within the initiating move itself, indicating a proactive approach toward addressing non-participation by some. Contrastingly, cooperative and denunciative acts were made following instances in which few students bid, indicating a more reactive approach whereby teachers positioned themselves to respond to whether or not students choose to assume responsibility for turns.

As a result of this analytical process, it became possible to explore how the distribution of opportunities for student talk differ in relation to the discursive strategies underpinning them. Notably, in order to avoid the pitfalls of assigning a static category to each teacher in the sub-sample, teacher discourse, as observed in particular lessons and interactions, rather than the teachers themselves, were the focal point of analysis up to this point. This approach allowed for the possibility that a single teacher may draw on more than one form of discourse or shift from one discourse to another across time. However, like Barrett (2008), while I categorized discourses, I recognized that 'discourses remain attached to the people who used them' (p. 499). Drawing upon teachers' explanations of, and reflections about, student participation as described during post-observation stimulated recall interviews and focus group discussions generated additional insight into teacher perceptions regarding the relationship between their own practices and processes of inclusion. In accordance with CR ontology, teacher explanation was conceptualised as a reconstruction of the generative network of mechanisms, tendencies and relations that produced their discursive strategies. In this respect, teacher reasons could be viewed as causal mechanisms, which '…are beliefs rooted in the practical interests of life' (Bhaskar, 1979, p. 123 as cited in Tao, 2013a).

Analytical memos (Saldaña, 2013) were subsequently constructed using the coded observations and interview data. Drawing on extant literature, the memos drew connections between teacher interview and focus group data and their classroom-based practices. Because each stimulated recall interview was based on salient moments of instruction, rather than a structured protocol with predetermined questions, the specific aspects of the distribution of turns were not discussed in a uniform manner. An example memo based on interview data is provided in Figure 4.4 below.

Researcher: ((*Pause Video to highlight several students on one side of the room who seem nonresponsive*)) Why do you think that some of the students are not responding to your question?
Teacher: It's hard to get voice of students. Especially some who are very much slow in learning. So, I will keep changing the methods of teaching. Depending on the situation they (the students) face. Sometimes, you can use one, and you find it does not suit, so you switch to another one and they (the students) come up.

Lisa Walker
Indicates a focus on within-child characteristics (outcome expectancy)

Lisa Walker
Indicates a personal commitment to producing participation (sense of personal responsibility for student participation)

Lisa Walker
Relationship between student participation and instruction

Lisa Walker
Indicative of the teacher's belief in his own capacity to bring about change in student participation (Self-efficacy)

Figure 4.4 Sample analytical memo

Other schemes and relevant literature were reviewed at this juncture. This process of 'cross-referencing' was influenced by Rampton (2006) who aptly noted that without this review of extant literature 'a whole argument would fall apart and the data would regress to a set of separate piles' (p. 405 as cited in Copland & Creese, 2015). This targeted review of literature, in conjunction with the process of code development and application, provided space for an exploration of the multiple mechanisms underpinning teachers' selection and use of turn-allocation strategies. A process of abduction and retroduction, in accordance with the approach detailed in Chapter 3.7.3, was concomitantly applied. This supported the identification of several socio-cognitive constructs (sense of personal responsibility, outcome expectancy and self-efficacy), which were then leveraged to redescribe and theoretically reinterpret the discursive strategies observed within the realm of the empirical. To support the validity of findings, the final process of retroduction included the explicit identification and analysis of disconfirming evidence.[28] This created space to examine instances that contradicted or were incongruent with my initial explanations. As is further discussed below, this multifaceted analytical process led to the creation of the two-dimensional framework shown in Figure 4.5. The framework draws upon the diversity of teacher perceptions and beliefs in order to depict the range of discursive strategies underpinning the distribution of opportunities for student talk.

4.3 Findings

The analytical process described above supported the creation of a two-dimensional framework. This framework illustrates the intersection of particular sets of turn distribution

---

[28] For instance, Mr. Mwakanosya use of an invitation to reply at the outset of extract 4.1. Through an analysis of the application of this turn-allocation procedure as embedded within the series of interaction, it became apparent that it was used as a proactive strategy, indicating that Mr. Mwakanosya was taking responsibility for the participation of the student and employing particular strategies in order to ensure that turn was actualised.

strategies, culminating in differential opportunities for student participation during whole class teaching. The framework can be seen in Figure 4.5.
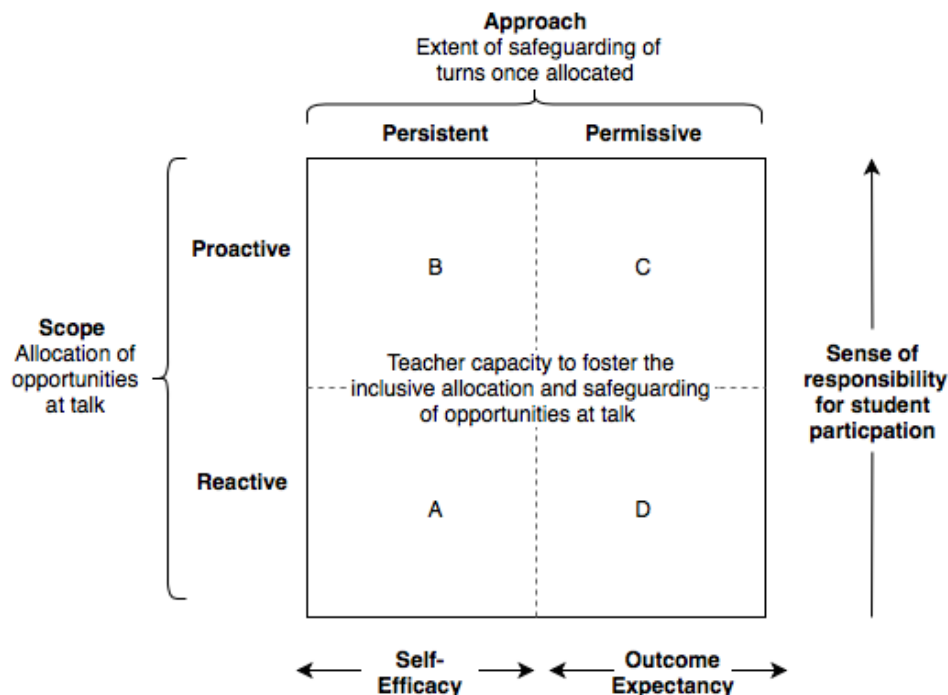
Figure 4.5 The teacher strategies shaping patterns of student participation

Scope, the first dimension identified during the analytical process, encompasses the strategies teachers use in allocating student turns, and are classified as either proactive or reactive. Proactive strategies, including the purposive use of nomination and designative acts, support teacher capacity to promote an inclusive distribution of turns. The use of these acts indicates that a teacher is deliberately working toward an allocation of opportunities for talk that recognizes and works to engage students at risk of exclusion. Conversely, reactive discursive strategies refer to those moves or specific acts which position teachers to react to the uptake of turns by students. Whereas reactive strategies position students to assume responsibility for gaining opportunities to talk (through replying to teacher invitations or actively bidding for turns), proactive strategies are indicative of a teacher's underlying sense of responsibility for the participation of a diversity of students, particularly those likely to become excluded.

During analysis, it became apparent that in order to understand the distribution of turns, it is insufficient to consider the allocation alone. Proactive allocation strategies unto themselves do not consistently result in expanded and inclusive participation, particularly for those reluctant to seek turns. A second dimension, Approach, was therefore added, leading to the

creation of the two-dimensional framework displayed in Figure 4.5. Approach is defined by the ways in which teachers engage when encountering dis-preferred outcomes, defined as those in which students provide incorrect answers, or instances in which teacher solicitations are not reciprocated by a student response. Approach is classified as either persistent or permissive. A persistent approach refers to the use of discursive strategies that attempt to work through dis-preferred outcomes. Permissiveness is indicated by the use of strategies that circumvent such potentially challenging situations, typically in favour of the most expedient route to the correct answer. Notably, approach is limited to interactions defined by the potential for dis-preferred outcomes, thereby excluding those interactions in which a correct response is immediately provided. This decision was made due to the increased variation in teaching approach observed in situations in which students provided a response not aligned with the knowledge the teacher sought to impart.

As is indicated in Figure 4.5, data generated from teacher interviews suggests that persistence is often associated with high levels of teacher self-efficacy. Strategies characterised by permissiveness are often described by teachers in relation to issues of outcome expectancy. While these are not opposite sides of the same coin, but rather, independent constructs, analysis suggests that they have opposing generative powers on teacher practice. This is further explored in the following detailed presentation of findings.

Integrating the two dimensions, any teacher-student interaction can be identified as being either proactive or reactive. In interactions classified as potentially challenging, teachers' discursive strategies can be further classified as either persistent or permissive. The four paired classes, as they appear in the classroom, can be described as follows:

A. **Reactive/Persistent**: Turns are allocated only to those students who seek the floor, but subsequent interactions are sustained even in the face of challenges.

B. **Proactive/Persistent**: Turns are allocated to a diverse set of students, and subsequent interactions are sustained even in the face of challenges.

C. **Proactive/Permissive**: Turns are allocated to a diverse set of students, but subsequent interactions are averted in the face of challenges.

D. **Reactive/Permissive**: Turns are allocated only to those students who seek the floor, and subsequent interactions are averted in the face of challenges.

4.3.1 Proactive discursive strategies

Proactive discursive strategies refer to the use of turn-allocation procedures that enable teachers to create space for the participation of students less likely to include themselves. The identification of proactive discursive strategies requires both a consideration of the type of allocation move employed, as well as attention to the particular student speaker. This ensures that the identification of proactive strategies is not limited to the type of allocation protocol utilised, but rather highlights the deliberate use of those strategies that ensure students who tend to refrain from voluntary responses are given explicit opportunities to talk. Proactive discourse was also identified through the use of designative acts, which are typically utilised in order to indicate sensitivity toward the need to engage non-participating students. In-depth analysis of these strategies, and the subsequent ways in which opportunities for talk were distributed across the 12 lessons, indicated that predominately proactive discursive strategies were used by five of the teachers included in the subsample. The five lessons characterized by a proactive scope were taught by four male teachers and one female teacher, and span all three subject areas and both forms, suggesting that the use of such strategies – in this small sample at least – is subject agnostic.

The extract below illustrates a combination of proactive allocation strategies. Within it, the teacher, Mr. Erasto, pairs a nomination allocation strategy with both designative and cooperative acts, enabling him to engage a student who had yet to voluntarily respond during the span of any previously observed lessons.

> *Mr. Erasto: Now, I want to hear from one who has not mentioned. Who can tell us which one is numerator and which one is denominator? Just raise up your hands. You are free, just raise up your hands. Let me go back there, raise up your hands. Raise up your hand. Yes, you ((Nods toward a student who had not raised her hand)). [010203B]*

The extract illustrates how Mr. Erasto embedded his initiating move within three complementary discursive strategies. Prior to stating the question, he clarified that the turn would be allocated to a student who had not yet spoken, an explicit signifier of the importance of participation for all. Following the question, he further specified that a student would be selected from those nearer the back of the room. While making this statement, the teacher moved down an isle to position himself closer to students nearer the back wall, disregarding several frequent bidders nearer the front of the room. These designative acts enabled Mr. Erasto to assume responsibility for the participation of two overlapping groups

of students whom he explicitly recognized to be at risk of exclusion: Those who had yet to be allocated a turn, and those who had chosen to sit nearer the back of the classroom and therefore were less visible to the teacher. By pairing these acts with cooperative discourse, 'be free', the teacher created a supportive dynamic, empowering students to assume some degree of responsibility for the allocation of turns without relinquishing his own role in the process. Having laid the foundation for expanded participation, he then leveraged the power of nomination, ensuring the turn was ultimately allocated to a student in the last row of the room who had yet to gain access to the floor. This combination of strategies capacitated Mr. Erasto, positioning him to expand the allocation of turns to all students by orienting his allocation procedure toward students who may not have otherwise taken up the opportunity to speak.

In the stimulated recall interview following this lesson, Mr. Erasto reflected on his approach to the allocation of turns. He explained:

> *Mr. Erasto: The back benchers are sometimes not active. That is why we are supposed to go there… Today I have discouraged the same students to answer. When I ask, a new student should answer…I think if I encourage each student to answer my questions, at the end, my class will be better. [010203B]*

This reflective comment, in conjunction with the discursive strategies employed by the teacher during classroom instruction, clearly indicates that Mr. Erasto is deliberate in his attempts to draw out students who may not otherwise participate. Within the extract, he emphasises the strategies that he employs – encouragement and discouragement respectively – in order to produce increased rates of participation among potentially excluded segments of the class population.

Other teachers employing strategies typically characterised as proactive expressed similar sentiments: 'I know I should pick them up' [020305A], and 'I don't know why she is so quiet. That is why I try to attempt [allocate a turn to] her' [020402A]. These statements are indicative of deliberate attempts at inclusion, reinforcing the categorization of certain discursive moves as proactive. They highlight the relevance of a sense of personal responsibility, wherein teachers express a sense of internal obligation and commitment to fostering inclusive and equitable patterns of participation and a sense that exclusion should be prevented.

The extract above was chosen because it not only indicates Mr. Erasto's sense of personal responsibility regarding patterns of participation, but it also indicates his belief in his own capacity to increase participation among quieter students through the use of particular strategies. As is further discussed in the following sub-section, his focus on the strategies he is able to employ indicates an emphasis on his own self-efficacy, defined as the extent to which he believes that he is able to support inclusive participation (Bandura, 1997). The insight provided through an analysis of his response highlights the potential generative power of self-efficacy in the safeguarding of turns.

Proactive/Persistent

Two maths teachers (Form I and Form III) and one Form I history teacher incorporated frequent use of strategies categorized as both proactive and persistent. In these lessons, teachers employed several types of discursive moves to both extend the allocation of turns, and to safeguard those turns during interactions cross-indexed by student responses characterised as 'dis-preferred.' Mr. Mwakanosya, a Form I history teacher, demonstrated several techniques in his attempts to engage with and safeguard the turns allocated to students less inclined to speak.

Extract 4.1
1. Mr. Mwakanosya: You heard how Nyerere was the founder of the nation, the first president. Isn't it?
2. Choral Response: Yes
3. Mr. Mwakanosya: How did you get to know? Yes.
4. Student 1: ((No Response))
5. Mr. Mwakanosya: Do you know that Nyerere was the first president?
6. Student 1: Yes.
7. Mr. Mwakanosya: How did you get to know?
8. Student 1: ((Shift into Kiswahili)) from the old people.

In the transcript above, Mr. Mwakanosya opens the interaction through the use of an invitation to reply, soliciting a choral 'yes' from several students in unison. The initial invitation (Line 1) could be interpreted as a form of 'safe-talk' (Hornberger & Chick, 2001) minimising the risk of an incorrect response by enabling students to respond to a relatively simple dichotomous elicitation in unison. However, the more complex question directed at an individual student (Line 3) suggests that this choral move was in service to a more proactive strategy, preparing students to get acquainted with the topic in order to nominate a student who had not yet been allocated an individual turn (Line 3). The student remained silent (Line

4), seemingly prepared to forgo the opportunity to speak. In response, Mr. Mwakanosya shifted back to the closed, attention focusing question used to elicit the previous choral response (Line 5). This move enabled him to draw the student into the discussion in a safe, familiar way, before restating the open and more complex justification seeking question which he had initially posed. By shifting back to a dichotomous question following an instance of non-response, the teacher created an alternative pathway to participation, and ultimately succeeded in ensuring Student 1 was not only allocated an opportunity to speak, but that this opportunity was actualized.

While Mr. Mwakanosya did not typically allow students to opt out, he did leverage similarly simple discursive moves such as 'Pick up somebody to help you' [020305A]. In this way, he was able to ensure that, even if particular students were not prepared to engage in talk about academic content, space would still be reserved for their participation, in this instance, by stating the name of a peer. This is a powerful device which allows for continuing interaction, minimizing the problem of reluctant volunteer and with the potential to decrease the likelihood that students will assume the identity of non-participant in future interactions.

Unlike Mr. Mwakanosya, both maths teachers who employed discursive strategies characterized as both persistent and proactive tended to allow students to opt out of turns. However, student tracking analysis clearly indicates that these teachers tended to return to students who chose to opt out later in the lesson, ultimately succeeding in safeguarding the allocation of turns through non-consecutive action. For example, Mr. Erasto called on a student who, while initially had bid for a turn, forfeited the turn allocated to her by remaining silent and refusing to stand. Several turns later, the teacher re-nominated her, safeguarding her turn by re-establishing the interaction. Through this discursive move, the teacher indicated not only a proactive discursive strategy, but one that is persistent.

In the stimulated recall interview, all three teachers employing strategies classified as proactive and persistent made comments indicative of a relationship between their approach and their belief in their own capacity to create an inclusive, participatory classroom dynamic. As one teacher noted:

> Mr. Erasto: She raised her hand but then stayed (down). She was not confident.
> Maybe she will mistake it. That is why I raised her again, and she did well….girls are
> sometimes not confident. They feel maybe my friends will laugh at me. So we raise

them as many times as possible and allow them to answer, and discourage those who raise hands frequently. And if they answer several times, they become confident. We are supposed to encourage each student to participate. [010203B]

Another teacher stated:

Mr. Mwakanosya: It's hard to get voice of students. Especially some who are very much slow in learning. So, I will keep changing the methods of teaching. Depending on the situation they (the students) face. Sometimes, you can use one, and you find it does not suit, so you switch to another one and they (the students) come up. [020305B]

The reflections indicate not only a sense of personal responsibility for ensuring certain groups of students are allocated the floor, but also a sense of self-efficacy. Notably, in the first extract, the reference to what is 'supposed to' be done is indicative of Mr. Erasto's sense of personal responsibility. Both teachers acknowledge that the personal characteristics of students – confidence levels and slowness respectively – influence student participation. However, by emphasizing how they adapt their own pedagogical approaches, both teachers suggest that they feel they have the capacity to control patterns of student participation regardless of such characteristics. Their explanations suggest that teacher self-efficacy serves a contributory role in their tendency to persist. At the most pragmatic level, the hypothesis underpinning this finding is that because these teachers believe in their own capacity to address and control student participation, they are more apt to persist in the face of challenging classroom interactions. This finding can be contrasted with teachers employing a proactive yet permissive approach, who, while also expressing a sense of personal responsibility for student participation, tend to describe the nature of teacher-student interaction and student participation as something outside of their control.

Ultimately, teachers employing a combination of proactive and persistent strategies maximize the diversity of student voices heard in a given lesson. Potentially marginalized students are provided with clear and consistent pathways to participation, helping to ensure that their thinking is heard by both teacher and peers, and that their voices are validated. This distribution of opportunities to participate can be contrasted with the remaining three typologies in which there is greater potential for student voices to become stifled and silenced.

Proactive/Permissive

As previously stated, the use of discursive strategies characterized as persistent can be contrasted with those characterized as permissive. A permissive approach is defined by moves that may proactively attempt to include non-participating students, yet ultimately fail to safeguard the allocation of such turns. Analysis indicated that two English teachers consistently employed proactive moves by reaching out to students liable to exclude themselves; however, the discursive strategies employed to initiate these interactions tended to give way to a more acquiescent approach. This dynamic is exemplified in a series of attempted interactions nearing the end of one Form III English lesson. The following extract illustrates how a teacher, Madam Mdemu, attempted to extend a response opportunity to non-participating students through the use of nomination strategies supported by designative and cooperative discourse.

Extract 4.2
9. Madam Mdemu: Another to try ((to construct a conditional sentence))? Another to try, Boys? Iddi, Iddi, can you try?
10. Iddi: ((No response))
11. Madam Mdemu: Can you try? Michael, Michael can you try to give us a sentence?
12. Michael: ((No response))
13. Madam Mdemu: Amadi can you try? Feel comfortable. Can you try?
14. Amadi: ((No response))
15. Madam Mdemu: Yes, Majidi.

This example demonstrates how permissiveness can and does operate in tandem with proactivity, whereby attempts are made to draw out particularly quiet students, yet successive moves indicate a susceptibility to withdraw from engagement in the face of dis-preferred outcomes (i.e. non-responsiveness). In the above interaction, which took place after several female students had bid for and been allocated turns, Madam Mdemu employed a series of nomination moves supported by designative and cooperative language. In doing so, she attempted to extend opportunities at talk to a particular group of students who she felt had been underrepresented in the allocation of turns – boys – by nominating three specific male students who had yet to be allocated the floor. While she used cooperative language, framing her nomination with the word 'try', to suggest that effort alone would be valued, she was ultimately unable to elicit a response from all three. She subsequently reverted to Majidi, a frequent bidder who had already bid for and been allocated three turns. She ended the lesson shortly thereafter, without having successfully allocated turns to any of the three students she had attempted to engage. While Madam Mdemu clearly employed proactive discursive

strategies in an attempt to include students less inclined to bid, she did not persevere, and her final move was that of acceptance of non-participation by some.

In reflecting on these interactions in the stimulated recall interview, Madam Mdemu explained:

> Madam Mdemu: *I just mention, like Amadi, Michael. Quiet. But I have to mention their names….I just feel bad, but nothing to do. Yea, that's why I just encourage them and perhaps in another lesson they will at least try because they will say huh, madam knew our names. So, in another lesson they will attempt. In mentioning their names, they get something that madam know us.* [020402A]

Madam Mdemu's proactive discursive moves, in conjunction with her reflections, suggest that she feels a sense of responsibility for the participation of all students. While Madam Mdemu expresses a sense of personal responsibility for ensuring turns are allocated in an inclusive and responsive manner, noting 'I have to mention their name', she does not persist. Her reflections indicate a potential relationship between sense of personal responsibility and outcome expectancy in underpinning the application of permissive discursive strategies. Her statement 'I just feel bad, but nothing to do' is somewhat ambiguous. While the statement 'I feel bad' is indicative of her own sense of responsibility, it is unclear if she feels incapable (which would be indicative of self-efficacy) or if there is nothing she can do because she has ultimately identified the problem as located within her students (which would be more closely aligned with notions of outcome expectancy). She then highlights student effort in the statement 'they will at least try' indicating that she perceives that effort is an important contributory factor in the non-participation of these students. This statement suggests that ultimately, it is outcome expectancy that is constraining Madam Mdemu's capacity to foster more inclusionary participation patterns. Such sentiments were expressed by Mr. Joseph as well, the other teacher identified as employing discursive strategies predominantly characterised as proactive yet permissive.

Both teachers employing proactive/permissive strategies highlight factors related to student language proficiency and innate subject-area interest when rationalizing the patterns of student participation observed during the lesson. Mr. Joseph, who also employed strategies categorized as proactive yet permissive, emphasized student 'slowness,' which he indicated refers to an internal quality of students that limits their tendency to participate. Herein, it is not teacher sense of efficacy in their own

capabilities per se, but rather, their confidence in the potential capabilities or effort of their learners that appears to prevail, contributing to limited persistence in the face of dis-preferred outcomes.

All of the above examples demonstrate discursive strategies that are fundamentally proactive, whereby teachers assume responsibility for ensuring an inclusive allocation of turns by purposively engaging students less likely to actively seek the floor. The following section describes lessons dominated by discursive strategies characterised as reactive, whereby teachers refrain from taking personal responsibility for the allocation of turns to students less likely to include themselves. Similar to the above analysis, reactive discursive strategies are also considered against Approach, exploring the implications of, and reasons underpinning, persistence and permissiveness in teacher-student interaction.

4.3.2 Reactive discursive strategies

A reactive scope is defined by the use of turn-allocation strategies which position teachers to react to the uptake of turns by students. Invitation to bid and invitation to reply, both of which allow students to self-select for opportunities to speak or bid, are most often associated with a more reactive scope. In these instances, while the exclusion of some students is not actively imposed, these allocation strategies bound the allocation of turns to student initiative. Nomination too can function in a reactive manner. Aligned with the findings presented by Good (1970), student tracking analysis suggests that this turn-allocation procedure can be used to allocate the floor to students who typically bid. This finding indicates that student participation, even in these instances, is ultimately dictated by student characteristics and preferences rather than as an inclusive measure to ensure a diversity of voices are heard.

Seven of the teachers included in the sub-sample employed predominantly reactive strategies. This finding, based on qualitative analysis of discursive strategies utilized, is reinforced by a comparison of the proportion of students allocated turns to speak in each of the 12 lessons included in the sub-sample. In lessons characterized by largely reactive allocation strategies, on average, 21% of all students were allocated individual opportunities to speak. This can be contrasted with lessons in which proactive allocation strategies were utilized, whereby an average of 42% of students were allocated opportunities to speak. These findings indicate

that the use of predominantly reactive discursive strategies limits teacher capacity to foster higher levels of inclusivity through student participation.

Data recorded in the form of field notes depicts this dynamic, describing interactions in which the response of a small vocal group of students was often perceived by the teacher as sufficient. Included below are field notes describing the ramifications of this dynamic as noted during a lesson observation:

> *The teacher continues his lecture-style instruction, punctuated by choral elicitations. The same small group of students clustered near the front of the room are responding. Notably, these are the same students who frequently raise their hands.... The students who are not replying seem to be increasingly disengaged. Whereas at the outset of the lesson, they appeared to be tracking teacher movements with their eyes, and recording notes from the blackboard, now they appear unalert and expressionless.... Several students appear to have fixed their gaze indiscriminately in the direction of the blackboard and have remained silent for the past several minutes despite the teachers continued use of cued elicitations. Focused on the replies he is receiving, the teacher appears unaware of the many students who have disengaged.* [Field note, 010201B, 21/2/2018]

During stimulated recall interviews, while teachers displayed pride or frustration at high or low rates of participation respectively, teacher comments did not indicate that they felt a sense of personal responsibility for including all students. Instead, there was a tendency to emphasise that as long as a minimum threshold of student voices was heard, allocation procedures were perceived as having generated sufficient participation. As one Academic Master explained 'If you get at least 100% but a little bit fair to say if you get at least 50% or 80%, it is somehow okay. You (the teacher) proceed' [Key informant interview, 010208]. Observation data supports this view, suggesting that invitation to reply is considered successful if at least 50% of the students respond.

Aligning with extant research in under-resourced contexts, teachers tended to indicate that a sense of responsibility for maintaining instructional pace superseded concerns for student participation (Banerjee et al., 2016; Harley, Barasa, Bertram, Mattson, & Pillay, 2000). One teacher explained 'Normally I want students to volunteer. That (way) he or she is ready so to give' [020401A]. This comment suggests an emphasis on maintaining instructional pace by avoiding dis-preferred outcomes which have the potential to delay the delivery of intended content. Another teacher noted 'I don't like all of them to answer…It takes too much. Only 40 or 80 minutes. Not enough time' [010101B]. A third teacher explained more explicitly

'Maybe you try even for example that class have more than 50 students. If you want to drill them, you make sure that every student speaks, you will find that you use the two periods and taught nothing' [020401A]. Although these teachers do not explicitly comment on the need to allocate turns to students less inclined to volunteer, their views highlight that teachers felt that limiting participation was intrinsic to being able to maintain instructional pace. This dynamic is briefly touched upon within the final discussion of this chapter and then explored in more depth in the analysis of teacher followup moves in Chapter 6.

One English Form 1 teacher demonstrated frequent use of reactive yet persistent strategies, whereas six teachers tended to employ reactive strategies combined with a permissive approach. Regarding the former, while one teacher, Mr. Emmanuel, allocated turns only to those students who sought the floor, he tended to sustain turns once initiated despite the emergence of challenges. However, the more common pairing, reactive/permissive, entailed a process in which turns were only allocated to those who sought the floor, and subsequent interactions were averted in the face of dis-preferred outcomes. These dynamics are further discussed below.

Reactive/Persistent

Teachers employing a largely reactive scope tended only to engage students who had bid for a turn and were prepared to respond, reducing the likeliness of non-response. Persistence in this context is demonstrated through the use of several strategies employed to sustain or extend interactions despite the emergence of challenges, such as a student providing incomplete or incorrect responses, or attempting to opt out before the interaction had been completed. This dynamic is demonstrated in the following series of interactions in which, following the introduction of present continuous tense in a Form I English lesson, Mr. Emmanuel spent several minutes eliciting student constructed sentences.

Extract 4.3
16. Mr. Emmanuel: I want you to do something, eheh, make a sentence, yes.
17. Student 1: Students are reading every day.
18. Mr. Emmanuel: Students.
19. Student 1: Are reading every day.
20. Mr. Emmanuel: Students.
21. Student 1: Are reading every day.
22. Mr. Emmanuel: Where did I use eh are, or, before the verb, I didn't put any word before the word here, and then, you are talking about reading, I didn't tell you about reading here. Can you correct your sentence?

23. Student 1: Student read every day-
24. Mr. Emmanuel: -Students you are talking about group, students-
25. Student 1: -Students read every day.

As can be seen in the above extract, Mr. Emmanuel persisted in engaging with the student, providing multiple opportunities for her to correct her sentence. He continued, until successful, in his interaction with the student, first inviting the student to restate her sentence (Lines 18 and 20) and when that proved ineffective, by providing informative follow-up that better enabled the student to self-correct. Ultimately, he worked with the student, persisting through the confusion in order to translate her incorrect response into the grammatically correct sentence he was pursuing.

Mr. Emmanuel also demonstrated persistence in the way in which he addressed low response rates following an invitation to reply or invitation to bid. Data recorded in the form of field notes illustrates this dynamic:

> *Very few hands went in the air. Rather than simply providing the answer himself, Mr. Emmanuel restated the principles underpinning the construction of a present simple sentence, and then opened the solicitation back up for bidders…. One student has raised her hand and provided a response deemed correct. Now, several more hands are going into the air, indicating that students understand the type of response the teacher is seeking.* [Field note, 020401A, 8/3/2018]

When reflecting upon his approach, Mr. Emmanuel expressed high feelings of self-efficacy, explaining:

> *Even my colleagues they have noted that maybe I am able to go with the form I to lay foundation, to help them to come up with something before they go for next level. I have experience. I have been teaching many years. I know how to teach these guys.* [020401A]

This example demonstrates how persistence can and does operate in tandem with reactivity. While attempts are not necessarily made to allocate turns to quiet students, successive moves indicate that the teacher is able and willing to persist in order to ensure that once initiated, teacher-student interactions are actualized. While Mr. Emmanuel provides a poignant example of how reactivity and persistence can operate in tandem, more often, reactive discursive strategies are paired with a permissive approach in which interactions are averted in the face of potentially dis-preferred outcomes.

In the context of a reactive scope, permissiveness is defined by the tendency to allow students to opt out or close an interaction before the interaction reaches a mutually agreed upon conclusion. Often, the use of discursive strategies categorized as reactive/permissive results in situations in which interactions fail to actualize. This dynamic is exemplified in the extract below:

Extract 4.4
26. Madam Winnie: What are the causes of Maji Maji? Who can tell us?
27. ((no response))
28. Madam Winnie: One. is the influence of Kinja Kitile….

In the above interaction, the teacher, Madam Winnie, demonstrates a tendency toward a relentless forward motion through content, a common observation in lessons characterized as reactive and permissive. Despite the use of invitation to bid (Line 26), and a clear intention to initiate a teacher-student interaction, the teacher rapidly reverts to lecture-style teaching (Line 28). At no point in the lesson did she attempt to reinitiate interaction with the students about the causes of the Maji Maji War. Ultimately, Madam Winnie's approach illustrates how a lack of discursive strategies that sustain interactions result in a reversion to monologic teacher talk, reducing teacher capacity to foster inclusion through student participation.

Permissiveness is also particularly apparent when, facing an incomplete or incorrect student response, teacher attempts to extend the interaction are rapidly abandoned. This dynamic is illustrated in the extract below.

Extract 4.5
29. Mr. Joseph: Another thing, another importance.
30. Mr. Joseph: Mshala
31. Student (Mshala): To understand different culture.
32. Mr. Joseph: To understand different culture ((teacher turns his back to the students as he records the words 'different culture' on the blackboard))
33. Mr. Joseph: Can you tell us in short when you say literature, help us to understand different culture. Yea its true but how can it help us to understand those several cultures, Mshala or your fellow Frank can you help your neighbour? It helps to understand different cultures, just mention them.
34. Mr. Joseph: Or, another thing, another importance?

In the above extract, Mr. Joseph employs invitation to bid, utilizing a volunteer-soliciting pre-sequence in order to bolster the likeliness of soliciting an appropriate response. He then attempts to extend the interaction by asking for additional information (Line 33). It is at this

point that the interaction breaks down. The student who had provided a response, Mshala, refuses to respond, averting his eyes and remaining silent. The teacher then nominates Frank, a particularly active student seated near Mshala. While he employs friendly language that is neither imposing nor denunciative, and creates space for another typically active student, Frank, to help, he is ultimately unable to elicit an additional response. He therefore reverts to his original initiating question (Line 34). While Mr. Joseph did demonstrate initial persistence, creating alternative pathways to extend the interaction by incorporating additional student voices, he was ultimately unable to formulate questions to extend the interaction in the way he had intended. As a result, the teacher abandoned the line of inquiry, reverting to the generic solicitation 'another importance' and diverting attention away from the failed attempt at sequence expansion. This is a common dynamic observed in multiple interactions in which teacher's discursive moves were characterized as permissive.

In reflecting on student participation and teacher-student interactions in the stimulated recall interview, Mr. Joseph and Madam Winnie emphasized how personal attributes of the students themselves underpinned the limited nature of teacher-student interactions. Mr. Joseph concluded that student participation was limited because '*It's a matter of their mind….Some are fast while others are very slow.* His comment appears to reflect wider norms surrounding the perceived capabilities of some students. As stated in the sub-section examining proactive/permissive strategies above, teachers employing reactive/permissive strategies were equally quick to attribute responsibility for limited student participation to student characteristics.

> *Once you ask a question, most of them remain silent…. It's the nature of the student.... Their understanding of the content is not that much good…. That is the question of slow learners or fast learners. That is the problem with that class. The majority are catching things slowly.* [010106A]

Other teachers echoed this sentiment, noting: '*it's the laziness of the students*' [010201B] and '*Students in Tanzania they think maths is very difficult. That is why in classroom like this you can see some few students, when you ask questions, few students are responding.*' [010204A] Unlike the reflections shared by teachers who had employed persistent discursive strategies, emphasising their own sense of capacity, the explanations provided about strategies characterised as permissive tended to highlight certain qualities located within the learners – their nature, their fear, their laziness. Factors outside of the teacher's locus of control inform and legitimise strategies characterised as reactive and permissive. In this way, teachers were

able to distance themselves from responsibility for more inclusive patterns of student participation.

4.4 Discussion

A common thread throughout this dissertation is how the establishment of a contextualised understanding of the nature of teaching and learning can serve as a powerful lever for addressing the barriers to inclusion which can emerge within classroom settings. Student voice in whole class instruction, the primary mechanism for student-teacher interaction in the lessons observed in this study, provides essential opportunities for teachers to promote processes of educational inclusion. Teacher turn-allocation procedures therefore serve as an important and relevant proxy for inclusion. An analysis of these procedures creates space to consider the terms under which students are invited to participate and learn.

Through an analysis of recurrent patterns of teacher behaviour, and deviations therein, it has become possible to establish a typology of discursive practices employed by teachers, and to consider how the identified patterns shape teacher capacity to foster processes of inclusion. The analytical process described in Section 4.2 contributed to the differentiation between Scope and Approach. Scope encompasses the strategies used in allocating student turns, whereas Approach sheds further light on the extent to which those turns, once allocated, are actualised. This differentiation reveals how and why the use of particular strategies unto themselves do not consistently result in expanded participation. While a proactive scope incorporating several nominations may be leveraged in order to allocate turns to students reluctant to volunteer, unless this is paired with a persistent approach whereby a teacher attempts to work through (rather than circumvent) dis-preferred outcomes, a greater degree of inclusion may not be actualised.

The creation of this analytical framework contributed to an exploration of recurrent patterns of teacher behaviour and the generative mechanisms underpinning them. While, as stated previously, the typology characterises the discourse rather than the person, 'discourses remain attached to the people who used them' (Barrett, 2008, p. 499) so that the personal characteristics displayed by teachers through their expression of ideas and reasons can be linked back to the classroom-based forms of discourse they most typically use. Analysis of interview and focus group data revealed that, in principle, teachers have a shared

understanding of the importance of student participation. All teachers within the sample acknowledged the importance of what they typically refer to as 'participatory learning,' defined by processes in which students are 'kept active' [020203B] and 'participate well in question and answer discussion' [010102]. Teachers overwhelmingly emphasised the problems they perceive with 'spoon feeding,' a technique associated with outdated pedagogies whereby a teacher simply transmits knowledge to the learner, positioning a student to take on the role of non-participant. While this finding reflects an important shared sociocultural norm, the beliefs and rationales underpinning it, and its manifestation within classroom practice, are more diverse.

Analysis revealed how teachers diverge in their sense of personal responsibility, self-efficacy, and outcome expectancy, and the implications of these differences for teacher capacity to foster inclusivity in relation to student turns at talk. These constructs provide insight into the reasons underpinning the differences and similarities in the allocation and uptake of student turns at talk.[29] Teachers employing strategies characterised as proactive and persistent tend to express a sense of responsibility for the distribution of turns, and a prevailing belief in their own capacity to bring about change (self-efficacy). For these teachers, a sense of personal responsibility is associated with the deliberate use of strategies that ensure students who tend to refrain from voluntary responses are given explicit opportunities to talk, increasing inclusionary practices in terms of turn-allocations. Similarly, high levels of self-efficacy are associated with a tendency to persist in the face of potentially challenging situations or dis-preferred outcomes. This latter finding aligns with extant research regarding the relationship between self-efficacy and teacher practice in contexts in the global North (Meijer & Foster, 1988; Park, Dimitrov, Das, & Gichuru, 2016; Smylie, 1988). The findings indicate that sense of personal responsibility and self-efficacy work in tandem to create space for and preserve the voices of those students at risk of exclusion.

Contrastingly, teachers who frequently employ discursive strategies characterised as proactive and permissive tend to express a sense of responsibility for the distribution of turns while simultaneously emphasising the capabilities and/or effort of their learners. For these

---

[29] It should be noted that although reasons are identified within this chapter as an important generative mechanism underpinning the discursive strategies teachers employ, Critical Realists acknowledge that the formation of reasons is nuanced. They arise as a result of interactions between teacher preferences, deliberations and choices as well as structural components of life including sociocultural norms, institutional dynamics, and material constraints (Sewell, 1992).

teachers, analysis indicates that one way in which they maintain a boundary between their sense of personal responsibility for student participation, and their tendency to allow for non-participation by some students, is through an emphasis of a deficit view whereby they attribute the non-participation of some learners to students' personal characteristics rather than to their own capabilities as teachers. Whereas Florian (2014) hypothesised that teachers must believe they are capable of teaching all children, and in instances whereby teachers do not believe that they are capable, they do not take responsibility, this finding indicates that it is necessary to consider the possibility that outcome expectancy can be utilised to legitimise lack of teacher capacity to fulfil their responsibilities. In this way, it becomes possible for teachers to distance themselves from responsibility for more inclusive patterns of student participation without undermining their own sense of commitment or capability.

Teachers employing discursive strategies largely characterised as reactive typically refrain from expressing a sense of personal responsibility for the participation of their students. Analysis of teacher interview data suggests that rather than an emphasis on responsibility for inclusive patterns of participation, teacher reflections suggest a tendency to assume responsibility for instructional procedures including, but not limited to, curricular coverage. This finding aligns with extant research in under-resourced contexts, whereby teachers tend to indicate that a sense of responsibility for maintaining instructional pace supersedes concerns for the participation and learning of individuals or groups of students (Banerjee et al., 2016; Harley et al., 2000). Here, the relevance of sense of personal responsibility remains; however, the target of teacher responsibility (responsible for what) shifts dramatically, from an emphasis on the students to a focus on the progression of instruction.

The conception of reactive discursive strategies applied herein builds upon the notion of safe-talk. In accordance with the notion of safe-talk established by Hornberger and Chick (2001), a tendency to rely on a reactive scope 'functions principally to give students opportunities to participate in ways that reduce the possibility of the loss of face associated with providing incorrect responses to teacher elicitations or not being able to provide responses' (p. 35). As the findings have revealed, teachers employing strategies characterised as reactive position themselves to react to the uptake of turns by students rather than proactively assuming responsibility for the allocation of turns. This typically results in a dynamic in which teachers interact with only those students who actively pursue opportunities to speak. This increases the likelihood that some segments of the classroom population will become excluded while

simultaneously reducing the risk of incorrect responses which have the potential to thwart the steady delivery of intended academic content.

By employing a reactive scope, teachers truncate their own capacity to ensure all student voices are heard, creating opportunities for students to become agents of their own exclusion. While the exclusion of some students is not actively imposed by teachers, analysis demonstrates how, in employing a reactive scope, these allocation strategies bound the allocation of turns to student initiative. Notably, an emphasis on allocation strategies characterised as reactive can be simultaneously conceptualised as a mechanism for allowing students to retain agency, even if that means allowing some students to orient themselves as 'silent students' (Koole, 2003). However, in accordance with the definition of inclusion applied herein, it is the responsibility of the teacher to include students who are liable to exclude themselves, and therefore, the notion of student agency does not provide an adequate justification for teacher inaction.

Analysis has raised several questions about the relationship between sense of personal responsibility, outcome expectancy, and self-efficacy. The findings indicate that it is possible to maintain a sense of personal responsibility for inclusive participatory patterns even in instances wherein it is not believed that the outcome is within a teacher's locus of control. Yet, in instances wherein teachers express a sense of personal responsibility, and a high degree of self-efficacy, there is a tendency to display more proactive and persistent strategies that are better aligned with processes of inclusion regardless of other factors associated with outcome expectancy. As stated at the outset of the findings section, outcome expectancy and self-efficacy are not conceptualised as opposite sides of the same coin. Rather, analysis indicates that they are associated with relatively opposing discursive patterns. While high levels of self-efficacy are associated with an approach characterised as persistent, low levels of outcome expectancy are identified as underpinning the more permissive approach.

Notably, in one instance, a teacher demonstrated both strategies predominantly characterised as proactive and persistent and strategies largely characterised as reactive and permissive across two separate lessons. Analysis of the insights generated during each stimulated recall interview respectively revealed that the teacher employed proactive and persistent strategies with the class he perceived to be more capable, and demonstrated higher levels of reactivity

and permissiveness in a class dominated by students for whom he maintained lower expectations. The teacher explained:

Mr. Norbert: They [do] not make revision and that is their problem. You can say this is according to the Form III students, [who have been] grouped them according to their performance…They grouped the students which have low IQ or poor or low marks. They know marks are low, so they don't work hard. [020304A]

When asked what he can do about this, he explained:

Mr. Norbert: On my side, that is not my case…Some class if [you are] going to teach you find difficulties. For example when you go to class which you can say slow learner with low grades, you can see they don't participate in the lesson. The lesson is going to be tough, even to remind them of [the] result of previous lesson. You saw with linear we discussed two weeks ago so you can see they don't remember so a lot of challenges with concepts of primary or form I, they ignore because they say we know too little about this so they not work hard or make revision. [020304A]

When asked how this teaching approach compares to that which he employs with his other class (those for whom he holds higher expectations) he explains:

Mr. Norbert: It's not the same. This one, when you teach something and they [are] not aware, you should go back and remind before you proceed. Even the concept of Form II, I, so it take[s] time to complete objectives. Because you have to take them back in order to be, if you go forward next part, you leave them behind. So you take extra time. And they come to the learning. [020304A]

The reflections above suggest that outcome expectancy may play a foundational role underpinning this teacher's willingness to express a sense of personal responsibility. These tentative findings indicate the importance of teachers raising their expectations of learners' capabilities, particularly for those who traditionally under-perform, as it may bolster the likelihood that teachers will assume responsibility and engage in more inclusive turn-allocation practices. Notably, the results of the OER4Schools professional development work in sub-Saharan Africa indicates that teachers can be supported in this process, providing a viable pathway forward for efficacious professional development activities (Hennessy et al., 2015). That being said, more research is needed in order to better explicate the relationship between these constructs in the actualization of processes of inclusion, particularly in under-researched contexts in the global South.

In addition to the establishment of the relevance of several prominent socio-cognitive constructs in examining and enhancing teacher practice, the findings presented herein are

significant in that they contribute to a more holistic and contextualised understanding of the discursive practices employed by teachers in Tanzania. Analysis has revealed several positive practices teachers employ in the Tanzanian context enabling them to foster processes of inclusion. Mr. Mwakanosya's strategic use of invitation to reply, a reactive discursive strategy, as a precursor to a more proactive approach, serves as a simple technique that can be used by other teachers in order to foster greater inclusivity. Similarly, the benefits of pairing nomination strategies with cooperative language serve as another viable strategy emerging out of the data which can be co-opted by other teachers operating in similar contexts. Much of what is considered 'best practice' in education development reflects the ideals of teachers and agencies borne out of western ideologies. This chapter has created space for the identification of several strategies which represent and reflect Tanzanian approaches and priorities. It also creates space for discussion with practitioners grounded in comparisons between different approaches utilised by Tanzanian teachers rather than comparisons between Tanzanian pedagogies and those used in dissimilar contexts and under different circumstances.

The practices and generative mechanisms described herein, and the ways in which they are represented within the layered CR world, are displayed in Figure 4.6.
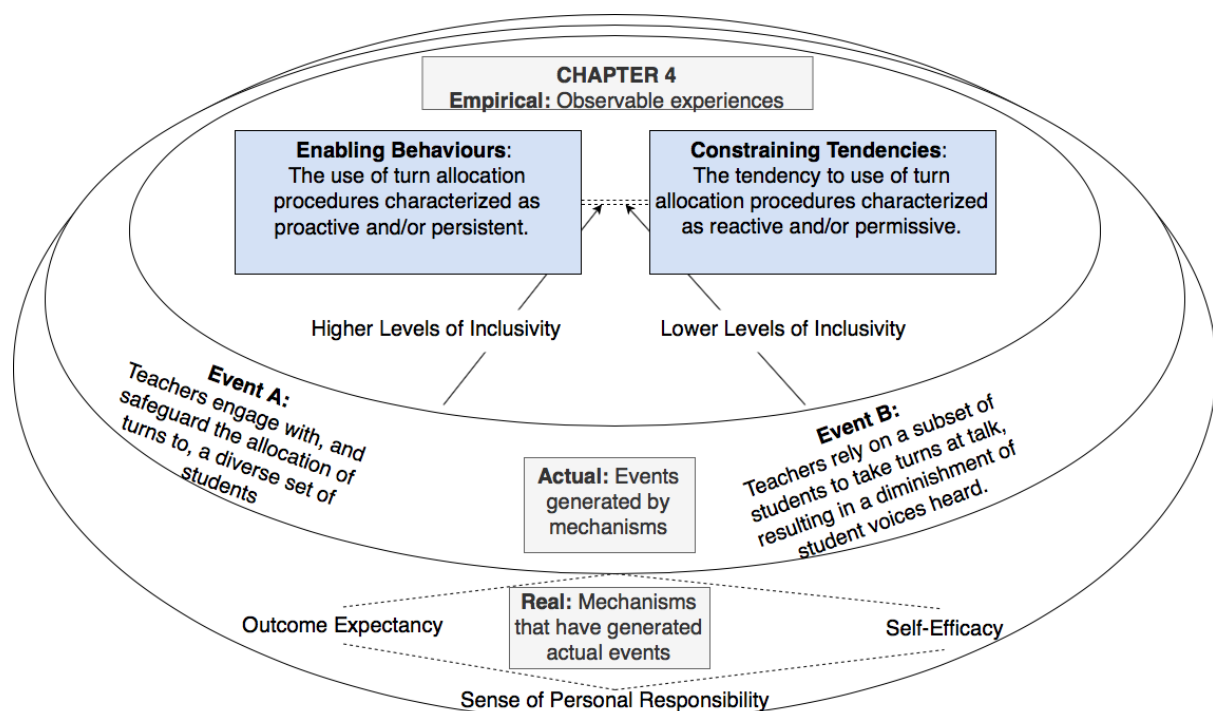
Figure 4.6 Turn-allocation procedures and the inclusion of student voice: An explanatory framework

The figure above is modelled after the layered CR world illustrated in Figure 3.2, whereby the inner-most circle reflects the realm of the empirical, the middle circle reflects the actual, and the outermost circle encompasses the mechanisms that have generated the actual and empirical. Within the realm of the empirical, the parallel line connecting enabling behaviours with constraining tendencies is indicative of opposing practices. The lines are dashed in recognition that it is possible to engage in classroom practice that is neither one nor the other, but rather falls somewhere between the two extremes. This indicates a continuum-like conceptualization rather than a binary one. The two solid unidirectional arrows emerging from the realm of the actual indicates how these practices are emergent from, and aligned with, certain salient events which are more or less inclusive. Finally, the data analysis process revealed the relevance of several socio-cognitive constructs for the development of the causal explanations sought after in CR. For a detailed explanation of this emerging explanatory framework and the meaning conveyed through Figure 4.6, please view Chapter 7.1.

While this chapter has provided insight into teachers' discursive strategies in relation to patterns of student participation, the value of student talk extends beyond the need to create opportunities for student voice alone. Research suggests that simply increasing the amount of student talk is inadequate for fully leveraging its value in sustaining student access to classroom life (Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009). Student participation through talk empowers students to take an active role in their own learning. Furthermore, by ensuring that a diversity of student voices are heard, a teacher can increase the validity of information about student (mis)conceptions that can be generated (Vingsle, 2014). This draws attention to the need for a more substantive exploration of the nature of student participation and talk, and the ways in which teacher solicitations create space for the assessment of student learning and associated needs. The following chapter explores the ways in which teacher solicitations are used to draw out evidence of student knowledge necessary in order for teachers to effectively recognize, value and respond to students' learning needs. Chapter 6 further explores inherent tension between the imperative to ensure all students have the opportunity to participate, and the need to generate nuanced and in-depth insight into students' ideas and (mis)conceptions, both of which are integral to processes of inclusion in the classroom.

Chapter 5. Revealing (mis)conceptions: Teacher questioning and evidence of student participation and learning

It is [the teacher's] business to be on the alert
to see what attitudes and habitual tendencies are being created….
what is actually going on in the minds of those who are learning
(Dewey, 1998, p. 38).

The previous chapter examined the ways in which teachers' discursive strategies function to promote student voice, creating and sustaining inclusive opportunities for student participation during whole class instruction. In addition, it provided insight into how particular beliefs about teaching responsibilities, self-efficacy, and outcome expectancy contribute to the construction of causal explanations for observed differences in teacher behaviour. The chapter was limited to a consideration of opportunities created for student voices to be heard and acknowledged, omitting an exploration of the nature of teacher-student interaction or the qualities of discourse generated.

This chapter builds upon those findings, investigating the types of evidence that teachers are able to generate about the nature of student participation and learning through student-teacher interaction. This line of inquiry is underscored by the fact that while creating pathways for the inclusion of a diversity of student voices is essential, it is only one step in the process of educational inclusion. A crucial aspect of teacher work in inclusive classrooms is the establishment of a detailed understanding of the difficulties that students experience in the learning process. Drawing on the notion of zone of proximal development (ZPD), this chapter explores how the questions teachers pose, the responses that students provide, and the knowledge that teachers bring to the interaction, shape teacher capacity to draw out and recognize students' learning needs.

There are two primary guiding questions underpinning the methodology and subsequent findings presented in this chapter, including: What evidence of student participation and learning are teachers able to draw out through their questioning practices? Under what conditions do teacher-posed questions influence teacher capacity to foster processes of educational inclusion? Why? This latter question incorporates a consideration of the generative mechanisms sought after in critical realism, seeking to unravel those tendencies or potentialities which exist within the unobservable realm of the real and which, under the right conditions, produce the experiences observed within the domain of the empirical. Ultimately,

these guiding questions contribute to the construction of an explanatory framework for how processes of inclusion and exclusion unfold within Tanzanian Ordinary Level secondary school classrooms as a function of the patterns of behaviour underpinning teacher practice. As with all three findings chapters, this chapter contains four elements: A targeted review of literature, an explanation of the analytical process, a presentation of findings, and a brief discussion.

5.1 Generating evidence of student needs: An overview of the literature

The approach to educational inclusion applied herein is grounded in a teacher's capacity to engage in *a perpetual process of increasing participation and decreasing exclusion in teaching and learning by consistently recognizing, valuing, and responding to all students' learning needs*. While the capacity to recognize students' learning needs can be supported through a variety of modes, from visual evidence gathered through the observation of students' facial expressions and gestures, to written evidence generated through exercises[30] and notetaking, the focus herein is on the oral evidence generated through teacher-posed questioning during whole class instruction. Aligning with the perspective established by Mercer and Littleton (2007) in their analysis of classroom dialogue, teachers have a professional responsibility to direct and assess student learning of a curriculum, and questioning serves as a natural and necessary part of this process.

Teacher questioning has received substantial attention within the education research community. However, the tendency to rely on dichotomous open/closed or display/referential scales has contributed to the homogenization of research findings, which tend to emphasise the excessive use of factual questions in particular, constructing an image of teacher questioning as a restrictive pedagogical approach aligned with direct transmission (e.g. Klinzing-Euricji, 1988; Nunan, 1990; Pontefract & Hardman, 2005; Wood, 1992). Such conclusions have been countered by other strands of research highlighting the challenges associated with assigning teacher questions into narrowly defined categories. This latter body of work suggests that such simplistic, dichotomous scales are as value-laden as they are problematic for issues of reliability and validity (Hargreaves, 1984; Ho, 2005; Wu, 1993).

---

[30] While the limited research established within the area of formative assessment indicates that written prompts may serve as more concrete ways of eliciting students' ideas (Furtak & Ruiz-Primo, 2008), written assignments were not a common feature of classroom instruction observed in the sample and are therefore not considered within this analysis.

There is no doubt that questions posed in the context of the classroom are different than those that occur in the context of everyday talk. As noted by Edwards and Mercer (1987), 'teacher questions are a special sort, in that they do not carry the usual presupposition that the speaker does not know the answer to the question asked. They function as discursive devices through which the teacher is able to keep a continual check on the pupil's understandings' (p. 132). Ho (2005) and Wu (1993), in their analysis of teacher questioning practices in classrooms in Brunei and Hong Kong respectively reveal how questions typically categorised as closed and assumed to be ineffectual can be both purposeful and beneficial when reflected against the agenda of the education system in general, and teachers' learning objectives in particular. Mercer and Littleton (2007) and Myhill, Jones, and Hopper (2006) build upon this perspective, highlighting the importance of distinguishing between the form and the function of a given question, whereby it is recognized that the form of a question does not necessarily have a simple and direct relationship to its pedagogical purpose.

Hargreaves (1984) describes how, while it is often recognized that student responses are contingent upon teacher questioning practices, student responses should also be conceptualised as a determinant of a teacher's questioning style. Her mixed methods analysis, which merges systematic analysis with ethnographic observation, creates space to consider the dialectical nature of teacher-student interaction whereby a student response may not engender the knowledge sought through a consideration of the teacher question alone. As aptly noted by Ho (2005), Wu (1993), and Seedhouse (1996), the question-answer exchange that occurs in the classroom is not an isolated interaction. It is embedded within a dynamic social environment whereby the dialogue preceding and following a particular teacher question, as well as the pedagogical purposes of the question itself, have substantial implications for the intent and ultimate value of a given question. In this way, it is not only the nature of a particular question, and the way in which it draws out evidence of student learning, that is relevant, but also the ways in which that evidence is recognised by the teacher which must be considered.

The approach to teacher questioning herein conceptualizes questioning as a potentially inclusive strategy in so much as it creates opportunities for teachers to generate insight into student participation and learning which can be used to ensure students' sustained inclusion in classroom life. Implicit in this view of teacher questioning is the idea that while the

questions that teachers ask serve a variety of pedagogical functions, from guiding the development of students' thinking, to developing particular vocabulary knowledge, all questions have the potential of serving the additional function of enabling teachers to assess aspects of student learning. It is the capacity to engage in ongoing formative assessment of aspects of student learning that are considered relevant by the teacher which contributes to teacher capacity to foster processes of educational inclusion. That is, a vital aspect of a teacher's capacity to make small adjustments ('tinker') in the instructional process as a function of student learning is the capacity to both draw out and recognize evidence of students' learning needs.

A relationship well conceptualised within extant literature, the capacity to draw out and recognize students' learning needs is dependent upon particular types of teacher knowledge (Black, Harrison, Lee, Marshall, & Wiliam, 2004; Falk, 2012; Ruiz-Primo, 2011; Vingsle, 2014). While described and distinguished in a variety of ways and through the creation of diverse taxonomies, extant research has demonstrated the importance of teachers' subject area expertise, pedagogical knowledge, knowledge of students and their learning, and the relationships among them (i.e. Ball, Thames, & Phelps, 2008; Falk, 2012; Hashweh, 2013; Shulman, 1986; Vingsle, 2014; Watson, 2006; Winch, 2017). Watson's (2006) research explores how teachers' knowledge about both mathematics and their students has substantial implications for teacher capacity to accurately interpret student understandings. Falk (2012) concludes that teachers' use of curricular knowledge, instructional strategies, and knowledge of student understanding, are all integral when interpreting the results of formative assessment activities. Winch (2017) emphasises the importance of what he refers to as applied subject knowledge, teacher knowledge consisting both of forms of teacher know-how and well-structured propositional knowledge, as vital forms of knowledge for processes of formative assessment. Vingsle (2014), building on notions of pedagogical content knowledge (PCK) first introduced by Shulman (1986), differentiates six types of knowledge. Her approach balances a focus on subject-specific knowledge, knowledge of instructional techniques, and knowledge of students and student learning in order to examine the types of knowledge and skills teachers require in order to accurately assess student needs. Koole and Elbers (2014), in their analysis of the interplay between student actions and teacher responses, highlight the importance of interactional knowledge, defined by a teacher's capacity to recognize the nature of a particular interaction and the ways in which it influences the qualities and correctness of student-generated responses. Extant research has established

an empirical basis for how each of these types of teacher knowledge have the potential to influence teacher capacity to both draw out and recognize students' learning needs.

The following sections build upon extant research about the nature of evidence elicited through teacher-posed questions, as well as research investigating the knowledge teachers draw upon in order to recognize evidence of student learning. Through the application of these conceptual and empirical tools, it becomes possible to identify under what conditions particular types of questions influence teacher capacity in terms of processes of educational inclusion.

5.2 Data analysis

In order to examine the nature of teacher questions, a deductive approach was initially applied in an attempt to derive codes from existing research. A process of trial and error was utilized in order to determine the suitability of extant coding schemes given the nature of my data and research purposes. As noted within the review of literature, dichotomous open/closed scales, and variations therein, have been used in order to classify and analyse teacher questions in education research around the globe. Despite its prevalence in prior research, multiple challenges emerged during attempts to apply this type of heuristic to the teacher-posed questions documented in this study. Many of the questions posed by teachers in the lessons included in this study appear to be open; however, an analysis of prior student learning, combined with an analysis of accepted student responses, indicated that the vast majority of reviewed questions were in fact functioning to solicit presumptively known declarative knowledge rather than inferential or schematic knowledge. When this context was considered, these questions were re-categorized as closed, or the closed equivalent, indicating that this type of scale would not produce adequate variance. Additional attempts were made to apply expanded versions of the typical open/closed dichotomy, such as the three tiered taxonomy differentially proposed by Hargreaves (1984) and Ho (2005). However, revised versions of the three-tiered approach were ultimately discarded due to ongoing challenges related to reliability. Experimenting with alternative coding schemes, Blooms taxonomy, and the taxonomy for teacher questions established by Myhill, Jones, and Hopper (2006), were also applied. However, attempts at the application of the former again led to challenges related to reliability, whereas analysis of the latter coding scheme indicated that, when

considered in light of the dataset utilized in this study, their codes were neither exhaustive nor mutually exclusive.

While attempts at deriving codes from existing research were ultimately discarded, the process was invaluable. It drew attention to the problematic nature of attempting to categorise teacher questions in isolation, highlighting the need to broaden the unit of analysis to incorporate both the student response and the teacher followup move. Moving away from deductive approaches, a predominantly inductive approach was applied. During this exploratory process, a sub-sample of teacher-student interactions was identified in accordance with the principle of maximum variation outlined in Chapter 3. That is, while not all questions within the 12 lesson sub-sample were analysed, three to five questions from each instructional component of the 12 lessons (review, introduction, reinforcement, and closing) were selected at random and utilised for analysis.[31]

As is demonstrated in Figure 5.1 below, the sub-sample was annotated on the basis of the initial guiding question: What are the qualities of interaction that provide insight into the pedagogical purpose underpinning a given teacher-posed question?

Original Lesson Transcript	Researcher-Generated Annotations
Mr. Emmanuel: Yesterday our topic was about the verb, who can tell me -A- what do you understand by the word verb, what is verb, (.8) -B- by definition, uhuh, yes. Student: -C- A verb is a word describe an action ((Student looking down at open page of exercise book)). Mr. Emmanuel: Mhm, good attempt. Who else. -D- Speak in a good way, the way we did yesterday.	A. Openness. The word 'you' before the word 'verb' indicating that student impressions are more important than the term itself, provoking student-produced explanations. Indicates genuine inquiry by the teacher about student background knowledge. B. Definitive. More restrictive. Seeking particular information. (The .8 second pause may indicate that the teacher has determined the openness of the initial question hindered response rates, and therefore, Mr. Emmanuel choose to create a more restrictive elicitation) C. Factual. Based on capacity to recall specific terminology. The fact that the student is looking at his exercise book indicates that he is reading the response from past notes. D. 'Correct knowledge'. Focus on the information or content itself rather than the knowledge displayed by the student.

Figure 5.1 Annotated transcript sample

---

[31] This sampling procedure differs from that applied to support the analytical process detailed in Chapters 4 and 6 respectively. Whereas analytical processes applied within both of those chapters utilized the full corpus of 740 interactions, analysis herein relied on a sub-sample of interactions so as to support in-depth analysis of each.

This annotation process included consideration of issues raised by the lexical choices, pauses, and non-discursive actions (such as reading from an exercise book) noted within the lesson transcript. The process was guided by several core concepts underpinning conversation and discourse analysis, including attention to sequence organization, and the epistemological dimensions of teacher-student interactions. It was further guided by an awareness of student knowledge or understanding as being represented as both an interactional discursive object and cognitive state or process. Because it was not possible to gain direct access to the minds of students or teachers, this analytical process was fundamentally inferential. It was informed as much by the nature of teacher-student interaction as it was my own knowledge of the wider classroom context, national syllabi, and subject-specific knowledge. The annotation process supported the identification of several key words characterising teacher questions in relation to student responses, and was continued until no new key words were identified, indicating that saturation had been achieved.

As a result of this preliminary annotation process, the core question guiding analysis was further refined: What evidence of student participation and learning are teachers able to generate through their questioning practices? Analytical memos (Saldaña, 2013) were subsequently constructed using the annotations, and drawing on extant literature. The memos drew connections between the annotations and extant literature in order to examine the nature of teacher questions through the lens of the types of knowledge generated. An example memo based on the question-answer exchange shown in Figure 5.1 can be viewed in Figure 5.2 below.

Figure 5.2 Analytic memoing sample

The descriptive analytical memos that emerged quickly became redundant, and through a process of merging and parsing, four discrete types of questions emerged, defined by the type of student-generated knowledge each solicits. The four types of questions, and associated evidence of learning engendered by each, are detailed in Table 5.1. Importantly, some teacher questions did not fit neatly into the emergent taxonomy, and yet did not, due to their limited frequency and/or coding objective, warrant the creation of a new parent code. These interactions were subsequently placed in a ragbag category and were considered as one source of comparison during the analytical process.[32]

Building on the analysis of teacher questions put forward by Hargreaves (1984), questions are categorized based on an analysis of the types of student responses deemed acceptable by the teacher. This approach allowed for an accommodation of instances in which the accepted response did not appear to match to question asked. Whereas for Hargreaves, students tended to provide elaborated responses following a seemingly closed, factual elicitation, within this sample, students tended to provide basic declarative knowledge in response to elicitations appearing more open and conceptual in nature.

Given the high-inference nature of this coding scheme, the code was applied to another subsample from the dataset, enabling a process of reconfirming that the codes were mutually exclusive and exhaustive. Inter-rater reliability (IRR) analysis was then performed in accordance with the process detailed in Chapter 3. The resulting estimate of Cohen's kappa averaged across the four categories was 0.80, indicating an acceptable level of agreement in accordance with the conservative cut-off values suggested by Krippendorff (1980) (Hallgren, 2012). For additional information about the IRR process or subsequent code revisions, please view Chapter 3.7.4.

---

[32] For instance, as is detailed in Section 5.3.1, Mr. Mwakanosya's use of the question 'how did you know?' and the subsequent student response indicates that the question enabled the student to share his personal experience, a form of student knowledge not accounted for within the taxonomy. Because this is the only instance in which this type of question was utilised, it did not warrant the creation of a new category of question. However, when analysing participatory elicitations, the use of this question was noted and contributed to the analytical process.

Table 5.1
Characterization and examples of teacher-posed questions

Code Name	Code Description	Example
Participatory Elicitation	Questions which signal student participation, typically through the use of simple initiating moves prompting a choral response.	
Polar Interrogative	Dichotomous questions which invite students to confirm their understanding (Adapted from Englert, 2010).	1. Mr. Mwakanosya: Are we together? 2. Students (Choral): Yes
Tonal Cue	Denoted by a mid-sentence rise in intonation, these questions cue students to repeat or complete a particular word or sentence (Adapted from Hornberger and Chick, 2001).	3. Mr. Michael: So, the nature of leadership is in two kind, the leadership can be strong, ↑can be 4. (.4) 5. Students (Choral): Strong
Choice Elicitation	Questions which generate evidence of student capacity to recognize correct information, typically through the use of a simple dichotomous initiating move prompting students to chorally agree or disagree with the correctness of a prior student response (Adapted from Mehan, 1979).	6. Mr. Joseph: Another definition of oral literature. Yes. 7. Student 1: Type of literature presented by word of mouth. 8. Mr. Joseph: She said that this is type of literature which presented by word of mouth. 9. Mr. Joseph: Is she correct? 10. Students (Choral): Yes
Factual Elicitation	Questions which generate evidence of students' declarative knowledge, typically through the use of an initiating move prompting an individual student to produce particular information (adapted from Ruiz-Primo, 2011).	11. Madam Winnie: Why active resistance, why active resistance, why active. Why active. Why active. Yes. 12. Student 1: Geographical position ((*The student reads this term from his notebook*)) 13. Madam Winnie: The geographical position. Another one.
Applied Elicitation	Questions which generate evidence of students' procedural knowledge, typically through the use of an initiating move prompting an individual student to produce particular information by executing a particular action or sequence of actions (adapted from Ruiz-Primo, 2011).	14. Mr. Emmanuel: Who can make a sentence to show a group routine. Who can do it. Uhuh yes. ((*The teacher points to a boy with his hand raised*)) 15. Student 1: We are going to school now. 16. Mr. Emmanuel: Mm no. We want you to make a sentence which can show it's a routine of a certain group.

The emergence of this four-pronged categorization scheme enabled the parsing of the dense dataset. Analysis of a sub-sample of interactions from each question type was conducted in order to identify how the different types of questions have differential potential to shape teacher capacity to enact processes of educational inclusion. In addition to lesson observation data, interview data was utilised at this juncture in order to, where possible, examine how teachers make sense of students' participation and learning in relation to the questions posed. Because this was not the initial focus of the stimulated recall interviews, the depth and breadth of teacher reflections on the nature of their questions and student responses varied from interview to interview. All comments related to teacher questions were therefore isolated, and the moments within the lesson observations that were referenced were incorporated into the sub-sample for further analysis. This resulted in a corpus of 16 teacher reflections and associated question and answer interactions to be analysed. Microsoft Word was utilised in order to pair teachers' reflective comments with the actual interactions they were discussing.

Again, a process of analytical memoing was leveraged, guided by the question: Under what conditions do teacher-posed questions influence teacher capacity to foster processes of educational inclusion? Why? More specifically, given the definition of inclusion applied herein, analysis considered how particular questions influence teacher capacity to *draw out evidence of, and recognize, students' needs.* The comments function on Microsoft Word was utilised to support the analytical process. A sample can be viewed in Figure 5.3 below:

Lesson Observation, Transcript Extract	Stimulated Recall Interview Extract	
Madam Winnie: Why active resistance, why active resistance, why active. Why active. Why active. Yes. ((*Two students raise their hands to bid for a turn. The teacher selects one boy near the front of the room)).*	*Yes, but you see, the way I ask questions, as you can see, I was interacting with them. And I used the method of interacting so I ask question, then they answer. So most of them managed to answer, with those correct terms, so they understand…At least them, the ones who answer, they get me.*	**Lisa Walker** The teacher question mirrors the exact language already recorded in student exercise books.
Student 1: Geographical position ((*The student reads this term from his notebook))*		**Lisa Walker** Emphasises content area competence.
Madam Winnie: The geographical position ((*Several students throughout the room flip through their exercise books))*		**Lisa Walker** Indicative of a focus on outcomes, not learning processes.
Madam Winnie: another one. ((*Several hands now go up into the air. The teacher selects a boy near the back of the classroom)).*		**Lisa Walker** Increased student bidding rate indicative of interactional competence! Not necessarily content area competence.
Student 2: Existence of powerful leaders. ((*The student reads this term from his notebook))*		**Lisa Walker** Student responses indicate that they are able to produce the correct response, though do not extend insight into student understanding of the academic terms used.
Madam Winnie: Existence of powerful leaders.		
Madam Winnie: Another one, yes ((*Again, several hands have risen. The teacher selects a girl))*		

Figure 5.3 Memoing about the relationship between observation and interview data

This process of theoretical redescription created space to again apply existing concepts, theories and models from across the literature. As a result, it became possible to identify the benefits and limitations of particular types of questions through the lens of inclusion, and to consider why those benefits and limitations emerge. In accordance with the recommendations put forward by Saldaña (2013), analytic memos were treated as data unto themselves, and a coding process similar to the one detailed above was implemented in order to identify the core implications of teacher interpretations and potential mechanisms underpinning them. Through this process, it became apparent that particular elements of teachers' knowledge, framing the ways in which they recognized evidence of student participation and learning. It is through this abductive process that several tentative mechanisms were identified, including specialized content knowledge (SCK), knowledge of content and students (KCS), and interactional knowledge (IK). While there is no doubt that these forms of knowledge are fluid and inter-dependent, they have been divided into these relatively self-explanatory categories in order to support methodological operationalization. The following table provides a brief description of each form of knowledge.

Table 5.2
Forms of teacher knowledge

Code	Name	Definition	Example
SCK	Specialized content knowledge	Subject area knowledge that includes both a tacit understanding of academic content itself and knowledge of how to accurately represent academic ideas and skill to provide explanations (adapted from Vingsle, 2014).	The teacher can explain a concept in different ways and through the use of different examples.
KCS	Knowledge of content and students	An amalgam between knowledge of content and knowledge of how students learn the content, including knowledge and skill on how students think about, know, or learn a particular topic or skill (adapted from Winch, 2017).	The teacher can identify and address common student misconceptions. The teacher displays understanding of the structure of particular academic knowledge from the point of view of someone acquiring expertise.
IK	Interactional Knowledge	Defined by the interplay between student actions and teacher responses, the focus is not on cognitive aspects of teacher knowledge, but rather, as something that is situated and social (adapted from Koole & Elbers, 2014).	The teacher can distinguish between student responses that indicate subject area competence, and those that are more likely to be indicative of interactional competence.

These constructs were then subjected to a process of retroduction allowing for analytical scrutiny in order to determine under what conditions the theoretical redescriptions remained true. The findings from this in-depth analysis, in-line with CR notions of both the empirical and the real, are detailed in the following sub-sections.

5.3 Findings

The following findings sections are organised in accordance with the four types of teacher questions identified during analysis. Importantly, the value of each type of question in terms of processes of educational inclusion is not defined by the question itself, but rather, through a consideration of the ways in which teachers interpret the responses they solicit.

5.3.1 Participatory elicitations

Analysis of teacher solicitation highlights the prominence of what is referred to herein as participatory elicitations, defined as questions which signal student participation through the use of simple initiating moves prompting a choral response. Mirroring the findings of Hornberger and Chick (2001) and Pontefract and Hardman (2005) this type of elicitation is signaled through predictable phrases or changes in intonation designed to cue students. In response, students provide confirmative one- to two-word replies in unison, or what Pontefract and Hardman (2005) refer to as a 'chorus of minimal response'. Because these questions rely on invitations to reply, providing space for all students to respond chorally and in unison, the responses they prompt are purposively restrictive, enabling teachers to reduce the likelihood of receiving a number of different responses simultaneously. In this context, analysis indicated that it is the rate of response rather than the content of the response itself which serves as an indicator of the extent to which some or most students are attentive and engaged during instruction.

The first type of participatory elicitation is signified by the use of what Englert (2010) refers to as polar interrogatives, yes or no questions which invite students to confirm their understanding. Particular questions include: 'Are we together'; 'is that clear'; or 'can I proceed' as was demonstrated in Lines 1-2 of Table 5.1. This question type prompts a simple choral yes or no reply, allowing students to claim that they have or have not come to understand particular academic content without being compelled to provide evidence supporting that claim. The second cue, for which there is an extended example in Extract 5.1

below, is denoted by a mid-sentence rise in intonation. This change in intonation is typically accompanied by a brief 0.4 to 0.8 second pause, cueing students to repeat or complete a particular word or sentence.

Extract 5.1[33]
17. Mr. Michael: So the nature of leadership is in two kind, the leadership can be strong, ↑can be
18. (.4)
19. Choral Response: Strong
20. Mr. Michael: Or weak, or ↑what
21. <u>(.6)</u>
22. Choral Response: Weak
23. Mr. Michael: So if the leadership is strong, ↑is
24. (0.5)
25. Choral Response: Strong
26. Mr. Michael: Of course they automatically they use, they ↑use
27. (.3)
28. Mr. Michael: Resistance. For example. For ↑e
29. (.6)
30. Mr. Michael: gsample. You can say….

In this set of interactions, Mr. Michael punctuates his monologue using a series of participatory elicitations (Line 17, 20, 23, 26, 28) with the goal of soliciting a string of choral responses (Line 19, 22, 25). As perfunctory as student responses to these elicitations appear, the chorusing prompted by both types of cue serve as an efficient means of maintaining some degree of interactivity, even during lecture-style instruction. In this way, the elicitations support a form of ritualised participation designed to keep students active and involved. As explained by Mr. Jambia, a Form I History teacher, when reflecting on his use of participatory elicitations during instruction:

> Mr. Jambia*: When you ask [participatory elicitations] you make sure they are active….If you experience such situation of those not active, to me, you can tell them to stand up and sit down so that situation can make them become active. Apart from that maybe you can point to student who is sleeping directly to answer the question.* [010103B]

This quote was selected because it demonstrates the dual function of participatory elicitations in increasing participation while concomitantly creating space for teachers to recognize relevant patterns or changes in the rate of participation. These common discursive devices position teachers to draw out evidence of student participation, creating space for them to

---

[33] For a description of the meaning underpinning the transcription annotations utilized herein, please view Chapter 3.5.6.

determine whether or not they have the attention of some or all of their students at a given moment during instruction.

As noted in the analysis of turn allocation procedures in Chapter 4.3.2, as long as a minimum threshold of student voices are heard, sufficient levels of participation are perceived as having been achieved. When this threshold is not met, the elicitation serves as a flagging device, creating space for teachers to recognize observable shortfalls in the rate of student participation. However, because participatory elicitations solicit a choral response, they enable a focus on the response rate of the majority, leaving those at the margins to fend for themselves. As was explored in Chapter 4, limitations inherent in the use of invitation to reply underscore the importance of ensuring this question type is paired with alternative mechanisms for assessing the participation of those less inclined to include themselves.

While participatory elicitations create important opportunities for teachers to recognize issues related to the participation of the majority, the restricted responses they facilitate do not require substantive understanding, but rather, merely the ratification or repetition of the prior teacher utterance. While the strength or loudness of the rhythmically coordinated chorusing clearly signals the extent of student participation, it provides no indication of the extent to which such words or ideas are known or understood. In this way, the analysis of the nature of this elicitation type indicates that it solicits claims of understanding (Sacks, 1992) rather than demonstrations of how a particular concept or procedure is understood.

Importantly, participatory elicitations formed through the use of polar interrogatives observed in the sub-sample consistently solicited affirmatory responses. While students occasionally remained silent, there were no observed instances in which students provided a negative response, a claim of not-understanding. This observation supports the conclusion that the responses that these questions solicit reflect interactional rather than cognitive capabilities. Aligning with the notion of safe-talk put forward by Hornberger and Chick (2001), the polarity defining certain participatory elicitations has the potential to obscure student learning challenges, concealing them beneath the fluidity of teacher-student interactions in which students are able to respond to teacher elicitations in lock-step.

This characteristic of participatory elicitations is not problematic unto itself; however, the limitations of these types of elicitations must be fully understood by the teachers using them.

Analysis of the observed tendency to move forward after receiving affirmatory responses indicates a tendency among teachers to accept claims of understanding as demonstrations without acknowledging the interactional mechanisms at play. This finding is reaffirmed in an analysis of teacher interview data, whereby teacher reflections suggest a tendency to interpret student claims as demonstrations, indicating limited interactional knowledge (IK). For instance, when asked if he thought that students understood a particular concept, one teacher noted 'I asked those students and they say they understand' [010103A]. Another teacher explained 'You know this is why I ask if we are together and when they say yes and not no. Therefore, I know I can proceed' [020305A]. In accordance with the notion of interactional mechanisms examined by Koole and Elbers (2014), the likelihood for misinterpretation is exacerbated when teachers do not recognize the influence of social dynamics on the production of student-generated responses. As is examined in Chapter 6, misinterpreting the nature of student responses can lead to a lack-of-fit between a teacher's instructional choices and the (mis)conceptions maintained by some or most students.

The reflections above can be contrasted with those of Mr. Mwakanosya, who, as was demonstrated in Chapter 4, Extract 4.1, leveraged participatory elicitations as a social support mechanism to engage students before leveraging more substantive and content-based elicitations. When asked why he used participatory elicitations, Mr. Mwakanosya explained 'it helps to get students interacting. Ready to learn. It's not saying anything about what they know, but [it] is still so important for those next steps' [Phone call, Mar 1, 2019]. His comment is indicative of his interactional knowledge (IK). He is clearly able to distinguish between a student-generated response demonstrating interactional competency, and that which is required to assess subject area knowledge.[34]

The above analysis demonstrates that participatory elicitations have the potential to serve an important social function, both supporting and signalling student participation. While participatory elicitations enable teachers to be responsive to issues related to student participation, unto themselves, they do not provide insight into the nature of student learning. Characteristics of participatory elicitations, including the way in which they solicit claims

---

[34] In the process of applying abductive and retroductive logic, the possibility also emerged that sense of personal responsibility may serve as a contributory factor. However, the data do not provide clear pathways for determining if differences in teacher interpretations are in fact a function of teacher knowledge regarding the role of interactional dynamics and student behaviours, or if it is more related to notions of responsibility (i.e. if they don't ask for help, I am not responsible for providing it).

rather than demonstrations of learning, and the way in which polar interrogatives are imbued with a positive polarity, limit the value of the responses provided by students. These characteristics of participatory elicitations, by extension, undermine teacher capacity to use student responses as an indicator of student learning. In order to tap into student knowledge, other types of questions are required. The following section explores the benefits and limitations of choice elicitations as an alternative question type that generates insight into both student participation as well as aspects of their learning.

5.3.2 Choice elicitations

Choice elicitations refer to questions in which a teacher invites students to chorally agree or disagree with the correctness of a prior student response. Similar to participatory elicitations, these questions invite all students to self-select to reply in unison, restricting student responses to a simple yes or no. Unlike participatory elicitations, choice elicitations serve as an efficient discursive device to both assess participation rates and to check whether students are able to recognize correct or incorrect information. Despite the benefits of choice elicitations as a rudimentary indicator of whole class understanding, they are far less common than participatory elicitations, and were only observed as a common discursive device in three of the twelve lessons included in the sub-sample. Some of the benefits and limitations of choice elicitations are illustrated in the following extract taken from Mr. Joseph's Form III English lesson.

Extract 5.2
31. Mr. Joseph: When we say oral literature, what is it? I need more hands, like in types of literature. Ramadhani.
32. Student 1: This is presented through oral explanation.
33. Mr. Joseph: Thank you. He said this is presented through oral explanation.
34. Mr. Joseph: Is he correct?
35. Choral Response: Yes ((Most or all students provide a clear, confident reply))
36. Mr. Joseph: Another one. Another definition of oral literature. Yes.
37. Student 2: Type of literature presented by word of mouth.
38. Mr. Joseph: She said that this is type of literature which presented by word of mouth.
39. Mr. Joseph: Is she correct?
40. Choral Response: Yes ((Fewer students reply, but a clear affirmative response is still fully audible))
41. Mr. Joseph: She is, yes good. Warini.
42. Student 3: Practised before the discovery of writings.
43. Mr. Joseph: It was practised before the discovery of writings.
44. Mr. Joseph: Is he correct? (0.8) Is he correct?
45. Choral Response: Yes/No ((Mumbled))
46. Mr. Joseph: You are not sure.

47. Mr. Joseph: Warini, may I ask you a question, is nowadays we have oral literature or not?
48. Student 3: We have them but it was practised before discovery of writings.
49. Mr. Joseph: We have them but it was practised before it was discovered before the discovery of writings. Warini is correct. Oral literature was practised before the discovery of writings. People didn't know how to write so they used words of mouth to present their knowledge.

In the above extract, while the initial elicitation is directed at individual students (Line 31, 36, 41), the whole class is then invited to evaluate the correctness of prior student responses (Line 34, 39, 44). This is achieved through the simple elicitation 'is s/he correct?' As stated above, the decision to use choice elicitations, a relatively uncommon discursive tool in the sub-sample included in the study, enables Mr. Joseph to evaluate whole class participation while simultaneously generating basic insight into the status of students' learning. The rate of response, and speed with which the students respond to the choral elicitation, indicates both students' engagement and the extent of their recognition. Following the first elicitation (Line 34) all or most students confirmed correctness rapidly and in unison, indicating that the majority of students recognized the correct information. Fewer students responded following the answer provided by Student 2, indicating that some students were unfamiliar with the phrase 'word of mouth.' As a result, Mr. Joseph revoiced the choral response, stating 'she is, yes' (Line 41), theoretically bolstering the likelihood that students unable to recognize the correctness of this response would be able to do so in the future. Without engaging in further dialogue about the answer provided by Student 2, it is difficult to determine whether this move resolved potential misunderstandings for any students. Nonetheless, this form of elicitation positioned Mr. Joseph to draw out evidence of student uncertainty without disrupting instructional pace.

The mumbled choral response following the third elicitation (Line 41) clearly indicated to Mr. Joseph that the majority of students were unable to recognize the information provided by Warini. Mr. Joseph's treatment of the choral response as an indicator that students were not able to recognize the correctness of information demonstrates the power of this discursive device. He therefore dedicated time to this response, providing additional explanation (Line 47-49) in order to address potential gaps in knowledge. The efficacy of this form of followup is further explored in Chapter 6.

Mirroring the functionality of participatory elicitations detailed in the previous sub-section, the use of choice elicitations shifts the whole class from being passive recipients to active

participators. Given the typical class size, the efficiency and expanded scope of this move makes it an important tool for teachers working toward processes of inclusivity. As Mr. Joseph explained:

> Mr. Joseph: *I need to assess the level of understanding to another student. Not only that one who answered. So they (other students) should be able to know whether it is correct or incorrect….there are too many students. When I ask it like this, it's so quick and then I know.* [Phone call, Feb 14, 2019]

While choice elicitations serve as a powerful tool to rapidly check whether or not students are able to recognize correct or incorrect information, there are obvious limitations. Analysis indicates that the capacity to recognize the correctness of particular information is often treated as sufficient grounds for proceeding with additional content, without sufficient attention to the reasons underpinning student valuations. As noted by Mr. Joseph:

> Mr. Joseph: *If they tell us it is correct, they should have reasoning. Be able to tell us why it is correct. Or why it is wrong. If there is no reasoning, they do not answer.* [Phone call, Feb 14, 2019]

This quote indicates that Mr. Joseph over-estimated the benefits of this elicitation type. The assumptions underpinning his sentiment, that recognition reflects more substantive reasoning, undermines the need for further instructional support, contributing to the likeliness of missed opportunities to generate more meaningful insight into students' learning. In this instance, analysis suggests a lack of capacity to differentiate between levels of competence displayed by students, indicating limited knowledge of content and students (KCS). More specifically, his interpretation suggests potential gaps in knowledge of how to differentiate within the cognitive domain of student learning (i.e. remember or recognizing versus understanding), suggesting that additional knowledge about student learning and processes of cognitive development is required to better position him to accurately recognize the value of student-generated responses in the future. His interpretation also indicates a limited awareness of the potential interactional mechanisms at play (i.e. that is it possible for a student to evaluate the correctness of a response without having a comprehensive understanding of the reasoning underpinning that evaluation).

In instances in which prior student responses are recognized to be incorrect by the whole class, analysis indicates that this does not necessarily result in attempts to probe student

reasoning. Instead, it typically results in additional attempts to elicit the correct answer, as is demonstrated in the following extract.

Extract 5.4
50. Mr. Norbert: Coefficient in roman 1 of simultaneous equation, variables are. You have already discussed it in form II, yes, Amina.
51. Amina: Coefficients are those x, xy. And variable is 2, 4, and 8
52. Mr. Norbert: Is she right? (1.6) Class, is she right?
53. Choral Response: No
54. Mr. Norbert: Another one. Yes, Sivanos.

In the above interaction, no attempt is made to generate insight into Amina's understanding of the term coefficient or variable, or to probe the rationale underpinning the negative valuation. Mr. Norbert accepts the negative choral response, and proceeds by returning to his original question. It is unclear from the data whether this action is the result of a tendency to prioritise the solicitation of correct responses, or if, like Mr. Joseph above, Mr. Norbert equates the correct valuation with deeper levels of student understanding, which would be indicative of limited KCS. Additional research is required to better establish the mechanisms underpinning these actions. The limitations inherent in this type of followup move are further explored in Chapter 6.

5.3.3 Factual elicitations

Factual elicitations refer to questions directed at individual students, enabling teachers to tap into declarative knowledge (knowing what). Building on some of the advantages of choice elicitations highlighted above, factual elicitations provide teachers with opportunities to not only determine whether students can recognize particular information, but whether they can produce that information. They are particularly useful for checking student knowledge of previous learning, familiarity with a new topic or concept, and domain specific vocabulary. Notably, some questions ultimately classified as factual appear more open, inviting students to demonstrate knowledge used to reason about, predict, or explain things (schematic knowledge), such as 'Why do we study literature?' [010102B]. However, analysis of the student responses accepted by teachers in these instances indicates that these questions solicit declarative knowledge despite more open phrasing.

Analysis revealed how the use of factual elicitations soliciting correct student responses enables the discursive production of academic material through interactive means. While

correct responses enable progression against the curriculum, it is those elicitations resulting in incorrect responses that prove to be particularly useful for safeguarding student access to the curriculum. It is the incorrect responses that create the conditions required for teachers to flag potential student misconceptions or gaps in knowledge. Education scholars refer to these opportunistic mistakes as 'springboards of inquiry,' because of their potential to open new pathways to instruction and understanding (DeBrincat, 2015; Myhill et al., 2006). While this is relevant across question types, its influence is particularly evident in interactions characterised by factual elicitations. The differential advantages of correct and incorrect student responses to factual elicitations is illustrated in the following series of interactions observed in Mr. Norbert's Form III maths lesson.

Extract 5.5
55. Mr. Norbert: Before we proceed, types of equations. Yes, types of equations, Amina.
56. Amina: Linear equation.
57. Teacher: We have linear equation. Linear equations. Yes, another. Sadani
58. Sadani: Quadratic equations.
59. Mr. Norbert: Quadratic equations. And, another, Gurumbu.
60. Gurumbu: Simultaneous equations.
61. Mr. Norbert: Simultaneous equations, yes, simultaneous equations. Who can give us example of simultaneous equations? Yes. Example, Kibwana.
62. Kibwana: [inaudible. States an equation which the teacher writes on the blackboard]
63. Mr. Norbert: Is equal to 10, is it, so if we separate them we have the two equation, isn't it. This is roman 1 and this is 2. So if we separate them, this is one equation and this is the other. Which kinds of equations are they, the first one is, in which type of equation. ((Only one student raises her hand, Nasra.)) Nasra.
64. Nasra: Quadratic equation.
65. Mr. Norbert: Quadratic equation, is she right? [no response] yes.
66. Student: Linear equation.
67. Mr. Norbert: This is what?
68. Choral Response: Linear equation
69. Mr. Norbert: One. ((One indicates that the class should clap, a form of positive reinforcement to recognize the correct response))
70. Mr. Norbert: Okay so this is linear equation, why, who can tell us? Why is linear equation? […]

In the interaction above, Mr. Norbert utilises a simple factual elicitation inviting students to recall the different types of equations learnt in a previous lesson (Line 55). In what follows, both Amina and Sadani provide standard, expected responses deemed correct by the teacher, enabling the discursive production of academic material through interactive means. While there is no doubt that the question is extremely restrictive, reliant on lower-order thinking, the responses generated indicate to Mr. Norbert that the students are able to produce the required information. As is examined in detail in Chapter 6, the correct student responses are

acknowledged, but there are no observable attempts made by Mr. Norbert to build upon or extend the student-generated ideas. This omission indicates that Mr. Norbert has interpreted Amina and Sadani's correct responses as sufficient demonstrations of knowledge.

These interactions can be contrasted with those generated by the erroneous response provided by Gurumbu (Line 60). Gurumbu's response indicates that she believes that simultaneous equations are yet another type of equation rather than made up of two or more equations. Her incorrect response prompts an unplanned instructional episode (Line 61-70) in which Mr. Norbert leverages additional factual and applied elicitations, inviting students to construct and identify various equation types. The extemporaneous episode results in Mr. Norbert being able to generate evidence of additional lack of clarity surrounding differences between linear and quadratic equations (Lines 63-65), leading to further instructional adaptation (Line 70). The series of interactions demonstrates the utility of Gurumbu's incorrect response, which positions Mr. Norbert to draw out and recognize more accurate evidence of student (mis)conceptions. In the absence of this error, Mr. Norbert would have likely interpreted the display of factual knowledge presented by Amina and Sadani as sufficient grounds to continue on with new content.

Importantly, the way in which Mr. Norbert responds to Gurumbu demonstrates understanding of the structure of the mathematical knowledge from the point of view of the student acquiring expertise. This is evidenced in his capacity to rapidly identify the connection between Gurumbu's incorrect response and its relationship to the content he is seeking to present. His choice to solicit an example of a simultaneous equation (Line 61) followed by his request for students to identify the types of equations contained within the example (Line 63) is indicative of his capacity to grasp conceptual dependencies and interdependencies from the point of view of the students and to establish an accurate understanding of where the intellectual problem with the subject matter lies. Reflective of Winch's (2017) notion of epistemic ascent, he is able to use this understanding to help address the misunderstanding evident within Gurumbu's response.

Analysis of interactions defined by the solicitation of correct responses suggests a 'sense of obviousness' embodied in questions themselves, enabling students to produce correct responses as a function of interactional rather than content-area competencies. This phenomenon undermines the value of these questions in enabling teachers to create an

inclusive learning environment that recognizes students' evolving conceptions. Analysis suggests that teachers embed many cueing mechanisms within factual elicitations, prompting students to produce correct responses. One particularly salient and observable mechanism used to cue correct responses is the leveraging what is referred to herein as linguistic parities. This refers to the tendency to formulate elicitations using the exact language used in past notes, enabling students to rapidly scan their exercise books and identify correct answers without needing to understand meaning. This is demonstrated in the following extract from Madam Winnie's form III lesson.

Extract 5.6
71. Madam Winnie: Why active resistance, why active resistance, why active. Why active. Why active. Yes. ((Two students raise their hands to bid for a turn. The teacher selects one boy near the front of the room)).
72. Student 1: Geographical position ((The student reads this term from his notebook)).
73. Madam Winnie: The geographical position ((Several students throughout the room flip through their exercise books)).
74. Madam Winnie: another one. ((Several hands now go up into the air. The teacher selects a boy near the back of the classroom)).
75. Student 2: Existence of powerful leaders. ((The student reads this term from his notebook)).
76. Madam Winnie: Existence of powerful leaders.
77. Madam Winnie: Another one, yes ((Again, several hands have risen. The teacher selects a girl)).
78. Student 3: Existence of Islamic.
79. Madam Winnie: Existence of Islamic.
80. Madam Winnie: Eheh another one.
81. Student 4: Bogus treaties. ((Again, several hands have risen. The teacher selects a boy)).
82. Madam Winnie: Another…

In the extract above, the language used to formulate the initial question 'why active resistance' mirrors the exact heading recorded on the blackboard in the prior lesson. The language cues students, enabling them to rapidly identify and reproduce the domain-specific terminology used in the previous lesson. Notably, while the initial rate of participation was limited, with only two students bidding for a turn (Line 71), once students were able to identify Madam Winnie's reference, the numbers of students willing to bid increased rapidly. Students familiar with note taking and review procedures could easily match the language of the question with previously recorded notes, and therefore did not require an understanding of active resistance, nor the particular terms used, in order to produce a correct response. Similar observations have been made by Mercer and Edwards (1987) and Koole (2010), who refer to this phenomenon as cued elicitations and knowledge-producing questions respectively, indicating that this is not unique to the Tanzanian context.

The challenge with this phenomenon is not the role of interactional competence unto itself, but rather, the way in which Madam Winnie interprets the value of student responses. When asked if she felt students understood the significance underpinning some of the academic terms mentioned, Madam Winnie explained:

> *Yes, but you see, the way I ask questions, as you can see, I was interacting with them. And I used the method of interacting so I ask question, then they answer. So most of them managed to answer, with those correct terms, so they understand…At least them, the ones who answer, they get me.* [020306B]

The quote indicates that Madam Winnie conceptualizes the interactive nature of her instruction, supported by factual elicitations, as mechanisms to check rather than to produce student knowledge. She therefore treats student responses as evidence of established knowledge, leading her to end the series of interactions and introduce a new topic rather than to elicit or provide additional explanation. By failing to recognize the knowledge-producing nature of her questions, Madam Winnie indicates gaps in her interactional knowledge. By misinterpreting the value underpinning student responses, she increases the likelihood of some students maintaining misconceptions or incomplete ideas. When a teacher treats a response as a result of interactional rather than cognitive mechanisms, it becomes more possible to draw out and recognize students' learning needs, reducing the likelihood of exclusion. This is illustrated in the following extract:

Extract 5.7
83. Mr. Joseph: Why do we study literature? Back benchers.
84. Student 1: Because we develop our imagination.
85. Mr. Joseph: To develop our imagination. When you say imagination, can you understand?
86. Mr. Joseph: [Kiswahili] You are reading, what have you written ((teacher goes and looks the students exercise book)).
87. Mr. Joseph: [English] what do you mean when you say to develop our imagination [Kiswahili] if I don't understand. [English] I can't understand when you say imagination, can you help your fellow students so that they can understand about imagination?
88. [No Response]
89. Mr. Joseph: Anyone to help him?

In the extract above, Mr. Joseph poses a question that appears to be soliciting schematic rather than factual knowledge. The student responds with a standard correct answer taken verbatim from past notes about the benefits of studying art (Line 84). The teacher clearly recognizes the common nature of this question, and the response parroted from past learning, articulating this awareness accordingly (Line 86). As a result, he treats the initial response as

a function of interactional mechanisms rather than as a demonstration of knowledge or understanding, and attempts to draw out additional evidence of student knowledge (Line 87).

The above analysis has demonstrated that factual elicitations in themselves, while restrictive in nature, are neither inherently bad nor good for drawing out and creating space to recognize student needs. By catching knowledge-based challenges in the classroom, impromptu opportunities can be created for teachers to work with students in ways that foster greater inclusion. However, while not inherent to factual elicitations, correct answers to factual elicitations often result from the use of particular knowledge-producing cues. These cues enable students to respond correctly as a function of interactional mechanisms at play, with the potential to conceal gaps in student knowledge which can lead to future exclusion from the curriculum.

5.3.4 Applied elicitations

Applied elicitations refer to questions that are directed at individual students, enabling teachers to tap into a students' procedural knowledge (knowing how). Procedural knowledge is defined herein as the knowledge of how to execute a particular action or sequence of actions. Observed primarily in maths and English language lessons, they provide teachers with opportunities to assess whether or not a student can apply a particular formula or more abstract principle or heuristic in order to solve a problem or complete a task. The outcome measure of an applied elicitation is generally the accuracy or correctness of the answer itself rather than the procedure used (Rittle-Johnson & Schneider, 2014); however, reaching that answer is reliant on a student's capacity to properly apply particular facts, skills, procedures or methods rather than simply recall a specific piece of information.

Analysis has revealed how the use of applied elicitations enables teachers to assess student capacity to translate knowledge into action. Through a single question, teachers are able to solicit evidence of multiple aspects of student knowledge, and to assess not only these discrete bits of knowledge and skills in isolation, but the ways in which their students can bring them together to construct meaningful responses. In this way, applied elicitations have the potential to draw out evidence of students' learning in multiple ways simultaneously. This advantage is illustrated in the following series of interactions observed in a Form I English lesson. Within the extract, the teacher provides students with the opportunity to apply what

they have learnt about the expression of routines and the use of plural pronouns in order to construct novel sentences.

Extract 5.8
90. Mr. Emmanuel: Who can make a sentence to show a group routine. Who can do it. Uhuh yes. ((The teacher points to a boy with his hand raised))
91. Student 1: We are going to school now.
92. Mr. Emmanuel: Mm no. We want you to make a sentence which can show it's a routine of a certain group.
93. Mr. Emmanuel: Yes ((The teacher points to a girl with her hand raised))
94. Student 2: Asha and Amina are going to play.
95. Mr. Emmanuel: Mm-mm. [Kiswahili] You have not seen what we are doing here. You need to tell me, here we are talking about one person ((referring to the previous activity)), but here we say we use these names to show routine for more than one person. [English] They always come to school very late. [Kiswahili] Always. Here is your routine. [English] We eat delicious fruits everyday.
96. Mr. Emmanuel: Uhuh [Kiswahili] Give me your sentence. Martina.
97. Student 3: Juma and Asha always play football.
98. Mr. Emmanuel: Eheh Juma and Asha good. Martina gave out a sentence that Juma and, let's say, John always play what, play uhuh, who else can make a sentence. Stop writing, I want you to make a sentence, uhuh.
99. Student 4: Students always play, play football everyday.
100. Mr. Emmanuel: Mmmm always and everyday. Good but, there is one problem. ((Mr. Emmanuel shifts to Kiswahili to explain the word always and introduce several other words including days of the week, the word 'every' and the way it can be used to talk about days or months)). Uhuh. Another.
101. Student 5: Amos and Ramadhani are studying=

The five student responses provide meaningful insight into students' individual grammatical, syntactical, and lexical know-how, indicating where additional support or instruction might be beneficial for some or all students. As aptly noted by Mr. Emmanuel when reflecting on this whole class exercise:

Mr. Emmanuel: *It gave the time to assess their understanding. To see how those students (are) expressing the habits. Routines. Those present simple tenses. The verbs, we learnt in the previous lesson. Those pronouns they learnt before.* [020401A]

While the objective herein is not to engage in an analysis of students' English language knowledge, but rather, to establish the efficacy of applied elicitations through the lens of inclusion, a basic description of the insights generated through an analysis of student responses appears to be relevant. All five student responses demonstrate knowledge of how to refer to multiple people, applying their knowledge of the first-person plural pronoun 'we' and precise names or labels to express the subject of each sentence respectively. While student responses indicate reasonable flexibility in the selection of sentence subjects, analysis

of all five responses indicates a lack of versatility in the selection of verbs. Both the first and second student (Line 91 and 94) use the verb *to go*, and the second, third and fourth student use the verb *to play* (Line 94, 97, and 99). The repetitive nature of the verbs used indicates that either the breadth of students' verb knowledge, or their capacity to utilize verbs may be a source of challenge. Similarly, while all students demonstrate a clear knowledge of a particular sentence structure (subject + verb +/- adverb), the lack of variability across responses indicates limited syntactical flexibility, which may require additional instruction.

Given the focus of the day's lesson, the construction of sentences in simple present tense, the use of simple continuous tense by students 1, 2, and 5 is noteworthy. Analysis of the procedural knowledge demonstrated by students in response to the applied elicitations enables Mr. Emmanuel to uncover the tendency among students to overextend the *-ing* and the present tense of the verb *to be,* an observation he highlighted during the post-observation stimulated recall interview. Conflating present simple and present continuous tense is a common challenge among English language learners, and is typically addressed by making direct comparisons between present simple and present progressive in terms of form, meaning, and use (Larsen-Freeman, Kuehn, Haccius, 2002). Ultimately, each of the observations described above is reflective of the benefits of applied elicitations in enabling teachers to draw out evidence of student learning. The analysis demonstrates how applied elicitations serve as a valuable tool for collecting evidence of student thinking, which can then be interpreted by the teacher and, as is explored in Chapter 6, used to adapt instruction in order to respond to students' learning needs. Notably, a deep knowledge of both the subject area (SCK) and the relationship between content and students (KCS) , including common misconceptions and relationships between core concepts, is required in order for a teacher to fully leverage the benefits of applied elicitations. Without this knowledge, the (mis)understandings evident within student-constructed responses may go unrecognized, and by extension, unaddressed.

Aligning with dominant conceptions of procedural knowledge among mathematics education researchers, applied elicitations can be distinguished by the quality of knowledge they solicit, falling along a continuum from elicitations that solicit deep to shallow knowledge (Baroody, Feil, & Johnson, 2007). Deep procedural knowledge, defined as integrated, flexible knowledge that can be applied in multiple contexts, indicates how a student understands the rationale underpinning a particular procedure or answer, rather than simply the procedure or

answer itself. This can be contrasted with applied elicitations that tap into shallow procedural knowledge, defined as sparsely connected, disembodied, context-bound, or algorithmic, permitting recitation of a correct answer or the steps of a procedure without necessarily understanding how or why they work. The above analysis suggests that the applied elicitations leveraged by Mr. Emmanuel effectively tapped into deeper levels of students' procedural knowledge, requiring students to merge several concepts in order to formulate grammatically correct sentences. However, analysis indicates that the procedural elicitations utilised within the sub-sample also invoke shallow knowledge, whereby students are enabled to perform a procedure without understanding why the end result may be evaluated as correct or incorrect. This limitation is illustrated in the following extract observed in Mr. Erasto's Form I maths lesson.

Extract 5.9
102.   Mr. Erasto: In fractions we have about three, four types of fractions. In fractions we have four types of fractions. One, type of fraction is proper (0.6) is proper
103.   Choral Response: Fraction.
104.   Mr. Erasto: One type is proper. How is proper fraction? A proper fraction is here, a proper fraction is (0.6) here is a numerator is smaller than the denominator. A numerator in smaller than the denominator, that means the denominator is larger than numerator. When you see a fraction [with?] smaller numerator and larger denominator, this is a proper fraction. Let me tell you some examples. One over two, you see here the numerator is smaller than denominator. We have two over three, ten over eleven, etc. We have so many examples that numerator is smaller than the denominator.
105.   Mr. Erasto: Now who can mention some other examples, where numerator is smaller than denominator…Yes.
106.   Student 1: One over four
107.   Mr. Erasto: One over four. Thank you. One over, this is a proper fraction because you see here the numerator is smaller than denominator. This is proper fraction.
108.   Mr. Erasto: Another example, can you.
109.   Student 2: Five over six.
110.   Mr. Erasto: Five over six. Good. Because five is smaller than six therefore this is a numerator and this is a denominator.
111.   Mr. Erasto: Can you mention another example.
112.   Student 3: Three over four.
113.   Mr. Erasto: Three over four. Good. Three over four. This is a proper fraction because numerator is smaller than denominator.
114.   Mr. Erasto: Another type is improper, improper fraction……

In the above series of interactions, Mr. Erasto solicits and successfully receives three standard correct responses (Line 106, 109, 112). Content-based analysis of Mr. Erasto's explanations (See Line 104 for example) reveal that his emphasis on a faulty heuristic limits the value of student-generated responses. While Mr. Erasto is operating under the assumption that his questions are assessing students' fraction proficiency (Tsai & Li, 2017), the omission of vital

fraction concepts such as the part-whole relationship or notions of relative magnitude are indicative of limited SCK, and likely undermined the value of his applied elicitations as well as the competencies demonstrated through student responses.

In the post-observation stimulated recall interview, Mr. Erasto noted that given the level of understanding he had interpreted from student responses, he felt confident that he could proceed to the next topic, the arithmetic of fractions. While Mr. Erasto recognized student capacity to generate correct responses, his reflections do not indicate that he recognised the conditions under which such responses were generated. Given that wider context, student responses could not provide the information required for Mr. Erasto to determine how and where instructional efforts should be focused. In order to conclude that the students had established accurate fraction knowledge, Mr. Erasto would have needed to tap into a deeper level of procedural knowledge. In the absence of such moves, analysis suggests that the elicitations used, and student responses generated, resulted in a distorted interpretation of student knowledge, constraining Mr. Erasto's capacity to recognize and subsequently respond to students' learning needs. This example demonstrates the influence of subject-specific and pedagogical knowledge in shaping teacher capacity to draw out and recognize students' learning needs. Given the scope of his explanation, students' responses likely reflect the capacity to simply transfer their knowledge of where a small and bigger number appear in a fraction written in symbolic form $\frac{a}{b}$ to similar symbolic representations, mimicking the examples provided by Mr. Erasto without understanding the process of formulating a proper fraction nor what it represents.

As analysis suggests, applied elicitations have the potential to tap into students' thinking in meaningful and multifaceted ways, providing teachers with the necessary data to draw out and recognize student (mis)conceptions. However, questions targeting shallow procedural knowledge can position students to produce the correct answer with limited or no understanding of the underlying meanings. In these instances, the validity of applied elicitations is undermined, with the power to distort teacher interpretations of student learning, limiting teacher capacity to support processes of educational inclusion.

5.4 Discussion

This chapter has examined the evidence of student participation and learning which teachers generate through their questioning practices. There is no doubt that an analysis of the types of questions posed provides invaluable insight into classroom life. Extant research clearly indicates that any move towards inclusion requires that teachers are fully conversant with an appropriate range of question types (Jha, 2002; Marvin, 1998). As noted by Edwards and Mercer (1987), questions 'function as discursive devices through which the teacher is able to keep a continual check on the pupil's understandings, to ensure that various concepts, information or terms or references are jointly understood, so that subsequent discourse may be predicated on a developing continuity and context of intersubjectivity' (p. 132). In the lessons observed in this study, teacher questions have been proven to tap into four discrete though interrelated aspects of student learning: Patterns of student participation, student capacity to recognize whether information is correct, their capacity to produce correct information, and their capacity to apply guiding heuristics in order to come to a correct response.

Analysis of the three types of questions soliciting insight into aspects of student knowledge indicate a relatively consistent and dogmatic depiction of academic knowledge and the teaching of it. Choice, factual and applied elicitations all rely to varying extents on student capacity to recall particular knowledge. As noted by Morge (2005), 'checking knowledge in this way comes from a conception of learning that corresponds to memorizing' rather than the co-construction of knowledge through more authentic forms of inquiry. These findings have been well-established in Tanzania, whereby a multitude of researchers have clearly identified the focal role of rote instruction and memorization in processes of teaching and learning (Bartlett & Mogusu, 2013; Hardman et al., 2012; Vavrus et al., 2011). Given this reality, the objective herein is not to explore why teachers draw on certain types of questions, but rather, to explicate under what conditions teacher-posed questions influence teacher capacity to foster processes of educational inclusion.

The findings presented in Section 5.3 illustrate why the ways in which teachers interpret the value and meaning underpinning student-generated responses are just as important as, if not more important than, the nature of the questions that they ask. Differences between interactions that appear to engender processes of inclusion, and those that have increased

potential for exclusion, are not necessarily grounded in the nature of the knowledge sought. Rather, the analysis has revealed how relevant differences are grounded in the ways in which that knowledge is interpreted by the teacher given the particularities of their pedagogical aims. In accordance with the approach to educational inclusion applied herein, it is this interpretive aspect of teacher questioning which foregrounds teacher capacity to properly diagnose students' learning needs and safeguard students' sustained inclusion in classroom life. The relationship between teacher questions within the realm of the empirical, and teacher knowledge as established within the realm of the real, is displayed within the framework in Figure 5.4 and further explicated within the final discussion (See Chapter 7.1).
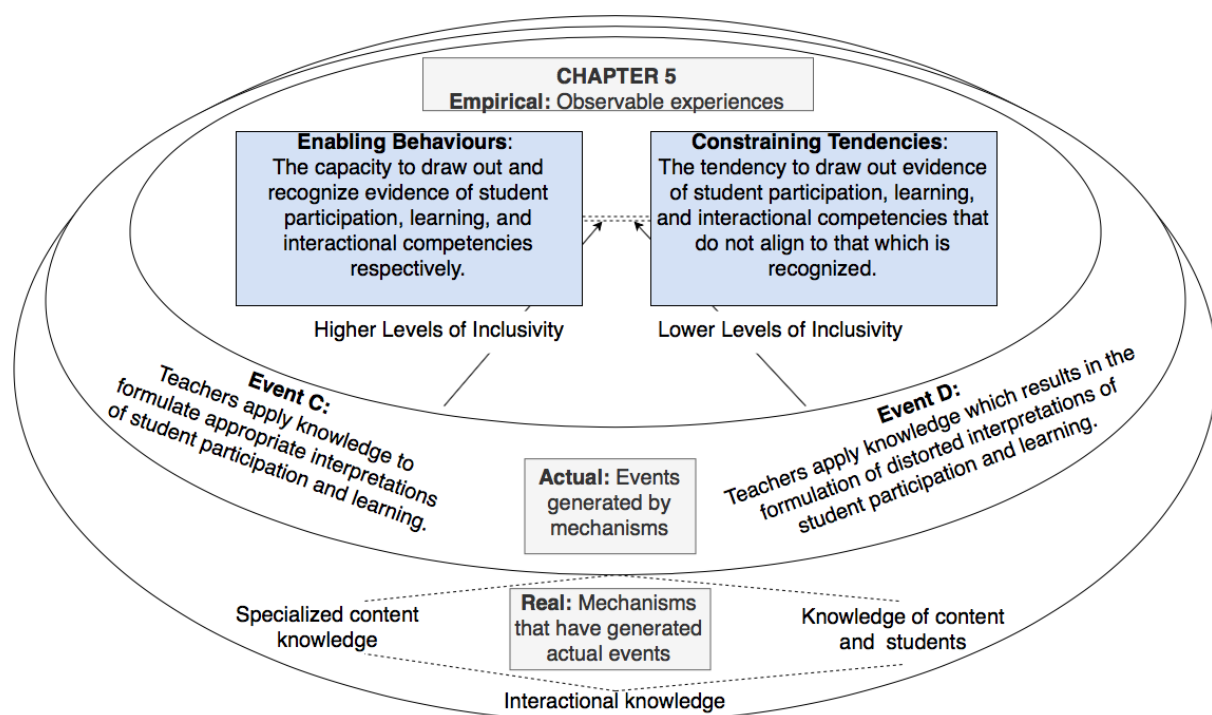
Figure 5.4 Drawing out and recognizing evidence of student learning: An explanatory framework

The focus of teacher questions varies from social aspects of instruction (are all students participating?) to procedural understanding (do students understand how to apply this rule to get the correct answer?). Participatory elicitations provide invaluable insight into the engagement of all or some students, positioning teachers to recognize changes in the rate of student participation even in the typically overcrowded classrooms included in this study. Despite clear benefits, when student responses are interpreted as indicators of the status of student learning, rather than as a signal of interactivity and participation, these elicitations function in ways that constrain teacher capacity to accurately recognize student needs. Furthermore, the concept of a threshold indicates that even where interpreted appropriately,

such elicitations can conceal the non-participation of some. Similarly, choice elicitations serve as a powerful tool to rapidly assess student capacity to recognize the correctness of particular information. Notably, they also act as a mechanism for teachers to delegate control of the assessment of students' responses to other students. While this control is typically rapidly resumed by the teacher, and while student participation remains extremely restricted, this type of elicitation creates important space for student inclusion in a consideration of the correctness of particular knowledge. However, when student responses are interpreted as indications of student capacity not only to recognize, but to engage in higher order thinking, exclusionary processes become increasingly likely as gaps between teacher interpretations and reality grow. Factual and applied elicitations function in much the same way. They provide invaluable opportunities for teachers to assess the gap between what has been taught and what students can recall and apply respectively. However, when correct responses are brought about through interactional means or faulty heuristics rather than as a reflection of students' content-area knowledge, and when this dynamic goes unacknowledged by the teacher, the use of these elicitations has the potential to constrain teacher capacity. In these instances, it becomes increasingly likely that gaps between what a student actually knows, and what the teacher assumes that student to know and be capable of, will increase. It is through these gaps in the diagnostic process that it becomes increasingly difficult for teachers to recognize and value students' learning needs.

Recognition of student difficulties inherent in processes of educational inclusion is dependent upon the ability to accurately diagnose what they are likely to be. While there are not major differences in the types of questions the teachers are asking across the sub-sample, analysis suggests fundamentally different capabilities in terms of teachers' specialized content knowledge, knowledge of content and students, and interactional knowledge. While a formal assessment of these domains of teacher knowledge was not included within this study, analysis has revealed their relevance. Differences in displays of these types of knowledge are evident when comparing interactions that appear to engender processes of inclusion and those that have increased potential for exclusion. These findings build upon extant research that has highlighted the limitations of teacher pre-service and in-service training opportunities across sub-Saharan contexts both in terms of developing teachers' subject area expertise and their understanding of learning trajectories and common misconceptions (Blömeke, 2012; Johnstone & Chapman, 2009; Waitoller & Artiles, 2013; Westbrook et al., 2013). In particular, it contributes to the construction of an empirical link between the nature of

teacher-student interaction, types of teacher knowledge, and processes of educational inclusion. As was noted within Section 5.3.1, further research is required to consider the ways in which other generative mechanisms, specifically sense of personal responsibility, also contribute to the dynamics presented herein.

Analysis began with an expectation that differences in the nature of teacher questioning practices would define the ways in which processes of inclusion and exclusion unfold within the classroom. The limited amount of research investigating the nature of teacher questions in Tanzania, and similarly under-resourced contexts, tends to analyse teacher questions through the lens of learner-centred pedagogy (LCP). As with research applying the dichotomous open-closed scale, research investigating the nature of teacher discourse in this context tends to construct an image of teacher questioning as a restrictive pedagogical approach, highlighting the way in which it suppresses LCP (i.e. Bartlett & Mogusu, 2013; Pontefract & Hardman, 2005; Vavrus et al., 2011). While this research provides invaluable contributions to our knowledge of teacher pedagogy, it fails to account for the ways in which teacher questions can shape processes of inclusion. Rather than the questions themselves, analysis herein has instead highlighted that it is how teachers interpret student responses that has more substantive implications for their capacity to enact processes of inclusion.

The capacity to draw out and recognize student learning needs is only one step in the process of educational inclusion within the classroom. Teachers also need to be able to devise ways in which to address student learning needs that demonstrate value for, and are responsive to, all students. These aspects of the student-teacher interaction are examined in Chapter 6.

Chapter 6. Responsive teaching: The inclusion of student feelings and ideas

It is the business of the educator to see in what direction an experience is heading…
To take the moving force of an experience into account
So as to judge and direct it on the ground of what it is moving into.
(Dewey, 1998, p. 32)

The previous chapter explored the multiple types of questions teachers ask during classroom instruction, and how the interpretation of student responses contributes to, or constrains, teacher capacity to support processes of educational inclusion. The evidence that teachers are able to draw out serves as a vital input in the diagnostic process, framing teacher capacity to determine students' competency levels and to identify potential misunderstandings on a moment-to-moment basis throughout the instructional process (Edwards & Mercer, 1987; Hargreaves, 1984; Ruiz-Primo, 2011; van de Pol, Volman, & Beishuizen, 2010). This chapter builds upon those findings, extending analysis to an exploration of the qualities of teachers' followup moves. This allows for a more holistic analysis, capturing the ways in which teachers communicate a sense of inclusion, and promote or hinder access to the curriculum, as instantiated in the ways in which they respond to student contributions during whole class instruction.

In leveraging the construct of responsiveness, and its instantiation in teachers' followup moves, this chapter examines processes of educational inclusion from yet another interactional vantage point: The ways in which teachers' followup strategies reflect processes of adaptation and sensitivity toward students' cognitive and affective needs. Several theories of teaching and learning are drawn upon in order to interpret the findings and address the guiding questions underpinning this chapter, which include: What recurrent patterns of behaviour (demi-regularities), and deviations therein, can be identified within the ways in which teachers respond to student contributions? What are the implications of these patterns in terms of how teachers are attending and responding to cognitive and affective dimensions of student learning? What pedagogic and/or social purposes can be identified in patterns of behaviour defined by lower or moderate levels of teacher responsiveness? A final guiding question, considered within the discussion section of the chapter rather than the findings sub-sections themselves, explores several non-observable tendencies or potentialities, referred to in CR as generative mechanisms. As explained within previous chapters, these exist within

the realm of the real, and contribute to the emergence of the recurrent patterns of behaviour detailed within the findings sub-sections.

The questions guiding this findings chapter contribute to the construction of an explanatory framework for how processes of inclusion and exclusion unfold within Tanzanian Ordinary Level secondary school classrooms in relation to the patterns of behaviour underpinning teacher practice. The chapter highlights the variety of demands underpinning teachers' followup moves, and considers how particular pedagogical and interactional objectives interact with, and have the power to constrain, teacher capacity to enact processes of educational inclusion. As with all three findings chapters, this chapter contains four elements: A targeted review of literature, an explanation of the analytical process, a presentation of findings, and a brief discussion.

6.1 Teacher followup as an instantiation of teacher responsiveness: An overview of the literature

As detailed in the review of literature (Chapter 2), teachers employ standard ways of engaging with their students, leveraging discursive routines marked by particular social and linguistic patterns which define the opportunities available for students to participate and learn. This chapter focuses on the contributions of teacher followup moves (Sinclair & Coulthard, 1975), the discursive moves teachers make as they respond to student contributions within the context of whole class instruction. It builds on the growing body of research which describes how followup moves take on a variety of forms and functions within classroom discourse, exploring the implications of such moves in relation to the ways in which teachers are able to foster processes of inclusion.

In the literature examining the structure of discourse in the classroom, the I-R-F pattern and related subtypes are by far the most prevalent (Howe & Abedin, 2013). A primary difference across this subset of literature lies in the final F move, which may be referred to in non-specific terms as Followup or Feedback (Sinclair & Coulthard, 1975), but which has been revised in subsequent research to emphasise more specific acts, including Evaluation (Mehan, 1979), Probing or Reinforcement (Kennedy, 2016), or Response (Scott et al., 2006). Some of

these variations reflect changes within the overarching participation structure,[35] and each variation offers different implications for the quality of classroom discourse. The variations noted within and across studies indicates how teachers can employ different followup moves for different purposes, and with diverse implications for processes related to equity and inclusion in the classroom.

Studies investigating the function and intent of followup moves often differentiate between those that serve a primarily evaluative function and those that serve a more dialogic role (Cullen, 2002; Edwards & Mercer, 1987; Pierson, 2008; Ruthven & Hofmann, 2016; Scott et al., 2006). Extant research indicates that a more evaluative approach to followup moves results in a teaching and learning dynamic more aligned to direct transmission. Researchers working in the global North generally converge around the idea that these moves are more likely to truncate student voice, limiting teacher capacity to ensure student access to the curriculum (Edwards & Mercer, 1987; Pierson, 2008; Scott et al., 2006). This is contrasted with more dialogic approaches which are understood to enable teachers to more effectively build upon students' contributions, incorporating them into the flow of classroom discourse. Research suggests that this style of followup better positions a teacher to engage in responsive adaptation in-line with processes of educational inclusion (Edwards & Mercer, 1987; Scott et al., 2006).

Other studies have investigated the influence of particular types of moves on specific student learning outcomes. Pierson's (2008) research reveals statistically significant relationships between teachers' followup moves and student learning of mathematics in classrooms in the United States. Her research concludes that teachers leveraging followup moves that are more responsive to student contributions are better able to moderate the effects of prior knowledge on student learning.[36] Meyer and Turner (2002) demonstrate how teachers' followup moves, when used to provide scaffolded instruction, influence student capacity to self-regulate their own learning. Jarvis and Robinson (1997) illuminate how certain types of followup moves

---

[35] E.g. the insertion of additional student-generated Responses rather than a teacher-generated Followup proposed by Scott et al. (2006).

[36] In effect, higher levels of responsiveness within teacher followup moves enables teachers to engage more authentically with the student-generated ideas rather than using student responses to support the presentation of ideas deemed correct by virtue of their inclusion in the syllabus. In this way, followup moves that engage with the substance of student ideas support the development of coherence and clarity in student thinking, helping students to integrate new ideas into prior experience and expose errors in reasoning that may otherwise hinder understanding.

have the potential to support or constrain the creation of shared meaning between teacher and students. In an analysis of teacher discourse in Malaysia, Malta, and Tanzania, they conclude that particular followup moves which function to 'focus,' 'build,' and 'summarise' student contributions enable teachers to ensure student access to the curriculum. Their analysis also suggests that an overemphasis on 'focusing' moves results in a failure to appropriate or effectively develop student generated ideas, hindering teacher capacity to safeguard student access to the curriculum.

Although teachers' followup moves can fulfil a wide variety of functions, the focus herein is on how they reflect minute-to-minute engagement with cognitive and affective dimensions of student learning, offering an empirical basis for a consideration of teacher responsiveness in relation to processes of inclusivity. Responsive teaching is an established line of inquiry within education research that considers how teachers notice, interpret and respond to students' diverse and ever-evolving needs. It is grounded in Dewey's focus on the 'educative experience' whereby learning is conceived of as a social and contextualised process. In accordance with Dewey's philosophical underpinnings, responsiveness is predicated on the belief that educational value is not abstract, but rather, it must consider and adapt to the needs and capabilities of individual students (Dewey, 1998). Given the emphasis on adaptation and recognition of the diversity of student needs, contemporary literature examining responsive teaching is very much aligned with contemporary discussions of educational inclusion. The construct of teacher responsiveness is often implicit within several of the approaches to educational inclusion used to inform the conceptualisation applied herein (e.g. Ainscow et al., 2006; Clough & Corbett, 2000; Dyson et al., 2002; Sebba & Ainscow, 1996).

In this study, responsiveness reflects three discrete yet interrelated characteristics of teacher followup which emerged as a function of a consideration of the literature in conjunction with the common patterns and deviant cases noted within the data. These include:

1) The extent to which particular followup moves take up the ideas evident within prior student contributions,
2) The ways in which they support more sustained attempts at instructional adaptation, and
3) The ways in which they provide explicit support or encouragement for student socio-emotional wellbeing.

Uptake, as defined herein, refers to a process in which a teacher incorporates what a student has said in framing the followup act. Its inclusion is informed by research indicating that it promotes student engagement and membership by creating opportunities for the integration and development of student generated ideas. As noted by Gamoran and Nystrand (1992) in their analysis of discourse between teachers and students, 'when students' ideas are taken-up by the teacher, this tells the students that they are important members of a learning community' (p. 42), allowing for students to become more substantively involved in classroom discourse.

Uptake is differentiated from more sustained attempts at instructional adaptation. Through processes of uptake, a teacher builds on student contributions, and can then leverage student-generated ideas, enabling the teacher to make his or her original point. Alternatively, student-generated ideas can then be employed in more sustained and transformational ways. In these instances, a teacher responds flexibly to student contributions, taking the time to explore a particular concept in accordance with the understandings made evident by the student. The resulting discourse may or may not align with the instructional path pre-planned by the teacher. This higher level of responsiveness is premised on the notion of contingency, a common characteristic of instructional scaffolding which is closely related to the socio-cultural theory of Vygotsky and notions of ZPD. It emphasises the ways in which teachers' instructional moves not only take-up, but are predicated upon the capacities and understandings made evident by students (van de Pol et al., 2010). Research highlights that contingency, or tailored instruction, is an important tool for meeting the needs of heterogenous groups of students (Pfister, Moser Opitz, & Pauli, 2015), and is therefore a particularly useful construct given the approach to educational inclusion applied herein.

A final consideration of responsiveness relates more explicitly to socio-emotional dimensions of student learning. As is indicated in the description of uptake above, the extent to which teachers' followup moves take up and are contingent upon student contributions have implications for the creation of an inclusive classroom climate. More specifically, teacher discourse influences the extent to which a classroom becomes an encouraging space characterised by mutual respect and trust, both of which are essential if processes of educational inclusion are to thrive. As noted by Marvin (1998) and Jha (2002) in their examination of processes of educational inclusion in British and Indian classrooms, sensitivity to issues of student confidence, trust, and motivation are essential to ensuring that

all students feel included and remain involved in classroom teaching and learning. Meyer and Turner (2002) demonstrate how teachers' followup moves, and the use of encouragement and support, enable them to attend to or disregard issues related to student confidence, motivation, and collaborative learning. Van Es, Hand and Mercado (2017) highlight the kind of reassurance that teacher followup moves can provide, which can encourage the continued participation and learning of some students, and support the actualisation of equity and inclusion during classroom teaching and learning. Teachers' followup moves provide targeted instantiations of the encouragement and support provided, enabling an empirically grounded analysis of how teacher responsiveness interacts with affective dimensions of student needs.

Within this chapter, consideration is therefore given to the ways in which teachers attend to both students' cognitive and socio-emotional needs. The following section provides a detailed explanation of the analytical process underpinning the chapter findings. It demonstrates how the construct of responsiveness has been operationalised in order to consider how and why processes related to educational inclusion are, to varying extents, manifest in the conclusion phases of teacher-student interactions.

6.2 Data analysis

Several challenges emerged during the analytical process as a function of the intersection of multiple factors including: The nature of the original set of guiding questions underpinning this study (See Chapter 3), the application of theories of teaching and learning borne out of the work of scholars and educationalists in non-African contexts (See Chapter 7), the foci of existing schemes for coding followup moves, and the nature of the observed teacher followup moves themselves. For instance, during the initial phases of data collection and analysis, which entailed a process of repeatedly viewing lesson observation data, producing initial transcripts, and identifying and segmenting strings of interaction, it became evident that teachers' followup moves were only minimally responsive to evidence of students' learning needs. This is despite the variety of questions being posed by teachers, spurring teacher-student interaction and eliciting evidence of student learning. The guiding questions were therefore revised in order to explore *how* teacher followup moves are (non)responsive, including a consideration of what, if not the substance of student contributions, teachers are attending to in their many teacher-student interactions. Given the intersection of these

challenges during the analytical process, the description of data analysis presented herein is more detailed than those provided in previous chapters.

As was detailed in Chapter 3, the analytical process was supported by techniques from both discourse analysis and thematic analysis, enabling a detailed and contextualised inspection of teacher responsiveness in the data. Notably, in order to examine the nature of followup moves, a deductive approach mirroring the process outlined in Chapter 5 was initially applied. It quickly became evident that the majority of existing schemes either rely on the use of productive dialogue, a cognitively demanding pedagogical activity not present within my sample (e.g. Hennessy et al., 2016; Meyer & Turner, 2002), or failed to draw out relevant aspects of teacher followup moves required to address my particular research questions (e.g. Cullen, 2002; Hardman et al., 2012). While attempts at deriving codes from existing research were ultimately discarded, an analysis of existing schemes provided important insight into the ways in which followup moves could be coded, as well as the missed opportunities for productive dialogue evident within my data.

An additional challenge emerged during the preliminary review of teacher followup moves: While the initial unit of analysis was assumed to be a given followup move, the majority of followup moves are made up of more than one part. This multidimensionality made it difficult to determine the primary function and result of each move. Upon further analysis, it became apparent that a single teacher followup move often contained two discrete parts, reflecting the way in which a teacher explicitly addressed the prior student utterance, and the way in which a teacher then determined whether and how to incorporate it into ongoing classroom discourse. A targeted return to the literature revealed that the patterns observed within the lesson data most clearly aligned with the distinction between retrospective and prospective pedagogic functions identified by Jarvis and Robinson (1997) in their analysis of teacher discourse in Malaysia, Malta, and Tanzania. This distinction is illustrated in figure 6.1, which demonstrates how a teacher first retrospectively explains why the prior student contribution has been interpreted as correct, and then prospectively invites another student to contribute through the statement '*Another example, can you*'. The decision was then made to draw on their distinction between the retrospective and prospective, reducing the unit of analysis from full followup move to its component parts.

T: Can you, yes. Any just mention any (an example of a proper fraction). Yes.

S1: One over four

T: One over four [said in confirmatory tone]. Thank you. One over, this is a proper fraction because you see here the numerator is smaller than denominator. This is proper fraction.

T: Another example, can you.

S2: Five over six.

Figure 6.1 *The relationship between retrospective and prospective acts (NVivo view)*

A continued deep reading of teacher followup moves revealed that the function and implications of a particular utterance cannot necessarily be known without consideration of those that precede and follow it. Aligned with the nested and ranked methodological framework detailed in Chapter 3.7.1, the analytical process applied herein is defined by a process of moving between 'communicative acts' at the micro level and 'communicative events' at the meso level in order to support rigorous and contextualised findings. The distinction can be viewed in Figure 6.2 below:

Insights from the meso level
While the teacher does take up the student-generated example, he maintains focus on his own ideas, using the criteria introduced in his prior utterance rather than those introduced by the student.

Given that multiple students have demonstrated understanding, this redirect appears responsive to the level of mastery displayed, and is therefore considered as a responsive progressive rather than a less responsive abandonment act.

T: Now who can mention some other examples, where numerator is smaller than denominator or I say denominator is greater than the numerator, who can give examples, you just mention examples which resemble to the examples, who can just mention any fraction, any fraction which is a proper fraction, just mention any. Can you, yes. Any just mention any. Yes.

S: One over four

T: One over four [said in confirmatory tone]. Thank you. One over, this is a proper fraction because you see here the numerator is smaller than denominator. This is proper fraction.

T: Another example, can you.

S: Five over six.

T: Five over six. [said in confirmatory tone]. Good.

T: Can you mention another example.

S: Three over four

T: Three over four. [said in confirmatory tone].

T: Another type is improper, improper fraction. That is improper fraction. Improper fraction is different than this one, it is like the opposite of proper fraction. Improper fraction is where the denominator is smaller than the numerator. That means the numerator is larger, is greater than the

Figure 6.2 *Micro level coding, meso level insights (NVivo view)*

As is illustrated in Figure 6.2, the decision to incorporate both levels was made as a function of the nature of classroom talk, which tends to be cumulative. Coding at the micro level of a communicative act enabled consideration of the separate functions of retrospective and prospective acts accordingly. Additionally, in preparing for inter-rater reliability analysis alongside a colleague, it became apparent that to both support reliability, and to ensure appropriate attention to detail, a single utterance (or communicative act) is best coded in isolation. Therefore, coding was applied at the micro-level. However, the interpretation of a given teacher utterance, and subsequent analysis, often included consideration of the wider

176

communicative event within which it is embedded. Within NVivo, the process was supported by the 'spread coding' feature, whereby it is possible to code more of the original context around a coding reference in order to better understand the context within which a particular communicative act is embedded. Ultimately, this integrated analysis enabled a more holistic and grounded exploration of how teacher (non)responsiveness unfolds during classroom interactions.

The ensuing code development process leveraged the benefits of discourse analysis, which provided a systematic and rigorous methodology for analysing teachers' followup moves and the actions contained within them. Code development involved reviewing a subsample of the 332 teacher allocation moves directed at individual students, and engaging in a process of annotation in order to identify key words characterising the retrospective or prospective function(s) of the acts embedded within a given followup move. Key words include terms such as 'verify,' 'reject' or 'elaborate,' each of which characterize individual acts by their respective functions. One important aspect of this phase of analysis was its focus on the development of descriptive rather than inferential annotations which, as noted by Boyatzis (1998) and Delamont (2012), bolsters researcher capacity to construct a reliable and data-driven coding scheme

The annotation process continued until no new key words were identified, indicating that saturation had been adequately achieved. Once this process was completed, key words were compiled and descriptions of each prepared in order to better elucidate the characteristics constituting each (Boyatzis, 1998). Here, the distinction between a retrospective act and a prospective act proved to be a useful construct supporting the identification of the core functions underpinning a given key word, enabling the initial identification and removal of redundancies within the preliminary code.

This process resulted in the development of a provisional coding scheme containing 24 discrete communicative acts. These were then compared and contrasted, merged, and rewritten in accordance with the code development and revision process outlined by Boyatzis (1998). This process reduced the scheme to a total of 11 codes[37] divided across three parent

---

[37] In the next stages of analysis, one additional code (P2. Continuation) was identified as a function of the way in which teacher responsiveness was operationalised. Three of the twelve child nodes (Redirect, Invite More

nodes (Retrospective/Cognitive, Retrospective/Affective, and Prospective). This reduced coding scheme, which can be viewed in Table 6.1 below, increased usability by ensuring clear boundaries delineating each code, and by reducing the likelihood of cognitive overload on the part of the researcher (see Miller, 1956 as cited in Boyatis, 1998 p. 48 for additional details).

Table 6.1
Coding scheme for the communicative acts embedded within teacher followup

Code Name	Code Description
RC. Retrospective – Cognitive	Statements or questions that reflect the way in which a teacher looks back at and engages with the ideas evident within the prior student response. Only one of the three codes may be selected for a given followup move.
RC1. Verify	Statement or question which provides a simple evaluative verbal or nonverbal indication of the correctness of the prior student response. This may be limited to statements such as 'yes', 'okay' or 'no.' This also includes the act of revoicing what the student has said with varying intonations in order to suggest the appropriateness or correctness of the response. This also includes instances in which the teacher elicits agreement or disagreement from the class, inviting students to act as judge and verify correctness. Consider RC2 (Correct) or RC3 (Explain) for more informative or extended retrospective acts.
RC2. Correct	Statements or questions which seek to replace an incorrect student response with one deemed correct or one which provides basic insight into why a particular student response has been deemed correct or incorrect. This includes instances wherein the teacher provides the correct answer him or herself but also includes instances in which the correct answer is elicited from the original student or other students in the class. It also includes instances in which the teacher reformulates the student contribution in order to make it more correct. Finally, this includes instances in which the teacher provides an explanation of correctness, whereby that explanation is focused around the teacher's ideas rather than those presented or indicated within the prior student response. Consider RC3 (Explain) if this is accompanied by an explanation focused on the ideas evident within the student response. Consider pairing this with P1 if the correction is invited from any student in class and relates to the initial question asked and not the student response (this is the case because corrections tend to relate to the prior teacher question but not to the content of the student contribution in need of correcting).
RC3. Explain	Statements or questions which attempt to provide or elicit additional information about the student response in order to make the student contribution known in greater detail. While this act may include verification or correction, it also expands upon or clarifies the ideas contributed by the student. Consider RC2 (Correct) if the focus is on correctness rather than elaboration. Consider RC1 (Verify) and P4 if the uptake is minimal and the explanation

Contributions, and Encourage or Support) were then further subdivided as a function of interpretative decisions during analysis.

	functions more to enable additional content coverage rather than to expand upon or clarify the ideas evident within the student response.
RA. Retrospective – Affective	Statements that reflect the way in which a teacher retrospectively engages with more affective dimensions of the interaction which have the potential to affect student socio-emotional wellbeing.
RA1. Reprimand or anti-social behaviors	Negative statements about students' abilities and/or effort, and negative nonverbal behaviors. Examples include 'are you stupid' or 'you are lazy, you don't listen' following a student contribution. This also includes derogatory acts related to social dimensions of classroom interaction, such as laughing at a student contribution or allowing other students to do so, or otherwise engaging in discourse that risks undermining student socio-emotional wellbeing.
RA2. Encourage or support	Statements which demonstrate value for student contributions or attend to observable evidence[38] of more affective dimensions of student needs. This includes praise, often provided in a quick phrase 'good try' or 'good job' or when a teacher has other students clap for the student who responded. It also includes acts which appear to support the development of stronger teacher-student or student-student relations or relate to classroom norms (social dimensions of classroom interaction). **Outcome-based**. Emphasis on performance outcomes. **Process-based**. Emphasis on the learning process.
P. Prospective	Related to the way a teacher disregards or incorporates the prior student contribution into ongoing classroom discourse.
P1. Invite more contributions	This is a generic invitation for others to attempt a question already answered. Invitations may be nonverbal (a teacher nodding at another student to speak), or the teacher may say things like 'another' or 'who can add'. This includes instances in which a teacher invites corrections (RC2) but a student then responds with no reference to the incorrect components of the prior student response. Also consider P2 (Continuation) or P4 (Content extension) if a new elicitation is used. **Low-Interanimation**. Ideas are listed but never compared **High-Interanimation**. Ideas are further developed through a process of comparison.
P2. Continuation	A statement or question which may or may not be related to the prior teacher utterance, but is unrelated to the prior student response. The followup act represents a continuation of the teacher line of thinking as it would continue regardless of the prior student response.
P3. Redirect	Instances wherein the ideas or concepts addressed in both the prior teacher utterance and the knowledge demonstrated in the prior student response(s) are disregarded, and the teacher shifts the focus of the conversation, usually through an unrelated followup question or pedagogical shift (often to lecture). **Abandon**. When the shift appears to be unresponsive to the level of mastery displayed in prior student responses. **Progress**. When the shift appears to be responsive to the level of mastery displayed in the prior student response. Also consider P2 (Continuation) if the act merely reflects continued instruction.

---

[38] Notably, while there are certainly learning needs which go unverbalised in classroom instruction, given the impossibility of observing such needs, these are not considered herein. However, analysis of student participation in chapter 4 did create space for a consideration of the implications of non-participation.

P4. Content Extension	The use of a question or statement in order to continue with the discursive production of canonical knowledge. The act is in-line with the previous question, and the student response is incorporated or taken-up, but only to the extent that it enables the teacher to continue with the predetermined line of questioning. Also consider P1 (Invitation for more contributions) if the same initiating move is used. Also consider P2 (Continuation) if the new question or statement has no clear connection to the prior teacher utterance or student response and appears disconnected from displays of student understanding.
P5. Cognitive Extension	Questions or statements which attempt to move the ideas or understandings in the prior student response forward by adding to or extending the students original responses (adapted from Jordan et al., 1997).
P6. Other	Any prospective act that doesn't appear to readily fall within one of the other nodes but is notable.

As is detailed in chapter 3 (Methodology), inter-rater reliability (IRR) analysis was then performed, with a resulting Cohen's kappa of 0.83. After establishing an acceptable level of agreement in accordance with the relatively conservative cut-off values suggested by Krippendorff (1980), the code was applied to the remainder of the 332 followup moves made in response to individual student contributions.

The relatively frequency of codes can be viewed in Figure 6.3. While frequency counts enable the generation of data required to describe the observations with numeric representations, serving as evidence for the strength of certain types of acts, the conversion of qualitative data to frequency counts removes much of the contextual cues that support processes of qualitative analysis. Notably, it is anticipated that certain types of acts will be less frequent than others as a function of the nature of the act itself, and therefore, frequency alone provides insufficient evidence for a determination of the salience of a given act. In addition, while frequency does enable the recognition of patterns within the qualitative results, it also enables for the identification of deviations from these patterns. In this way, acts that are observed more frequently are not necessarily more relevant for analysis than those which occur less frequently. For instance, the fact that cognitive extension acts account for only 2% of all prospective acts observed makes this type of act more rather than less salient given the research objectives underpinning this analysis and the need to establish points of comparison and contrast.

Frequency of Retrospective - Affective Acts

Chart Area

Reprimand or Anti-social 11%

Encourage or Support 89%

Total # of Observations: 70

Frequency of Retrospective - Cognitive Acts

Correct 17%

Explain 18%

Verify 65%

Total # of Observations: 263

Frequency of Prospective Acts

Cont. 4%

Cognitive Extension 2%

Other 8%

Content Extension 25%

Invite More 54%

Redirect 7%

Total # of Observations: 290

Figure 6.3 *Relative frequency of acts*

In establishing coding guidelines, it was determined that a followup move could contain anywhere from one to three discrete acts, creating space for the inclusion of a retrospective/cognitive act, a retrospective/affective act, and prospective act within each move. Several followup moves did not include retrospective/affective acts, and in some instances, retrospective/cognitive acts were also absent. Finally, in few instances, no prospective act is apparent, as the retrospective act extends into the following interaction. In these instances, only one or two codes were applied. One way to expand the scope of the scheme in future iterations would be to include a code accounting for these absences in particular acts of followup, enabling for an exploration of the potential meaning underpinning such silences in the data.

Given the focus on assessing the quality of dialogue rather than cumulative frequency, a decision was made to limit the use of codes to a maximum of one for *each* of the three types of communicative act embedded within a teacher followup move. As noted by Hennessy et al. (2016), a focus on quality rather than quantity is more linked with the identification of the highest level features of a particular speech act, and, importantly, this approach also supports increased scheme reliability. This choice is particularly consequential for the selection of retrospective/cognitive acts, as a single move could contain more than one type of act.

Therefore, a hierarchy was established whereby priority was given to acts based on level of complexity, whereby verify is the simplest of the three acts and explain is the most complex. This approach is underscored by the goal of identifying acts as a function of the extent to which they are responsive to students' socio-emotional wellbeing and the ideas evident within student contributions.

The development of the micro level coding scheme served a pragmatic purpose, enabling the disaggregation of dense lesson observation into manageable empirical slices more suitable for the identification of important patterns across the data. It is at this juncture that other schemes and relevant literature were again reviewed, cross-referencing accordingly. As noted previously, this process supported the identification of patterns and themes across the data. It also provided space for identification and management of assumptions and biases within the initial coding process that required consideration. For instance, it highlighted the inclination to disregard teachers' tendencies to invite clapping following a correct response, which, while I had initially deemed irrelevant, was clearly used with inclusive goals in mind. Through this reflexive cross-referencing process, such biases were identified. While this did not necessarily result in the purging of all biases and assumptions, by being conscious of how researcher subjectivity had shaped some of the code development process, additional light was shed on the partialities that were previously opaque, and more objective decisions were made.

Drawing on the characteristics of responsiveness noted within the review of literature, the various communicative acts were studied in order to uncover the relationship between teachers' followup acts and their capacity to act in responsive ways as agents of inclusion. This interpretative procedure was supported by several guiding questions including: 'Does the followup act attempt to take-up the ideas evident within the prior student contribution? Whose idea is the followup act contingent upon? Is the followup act explicitly engaging with student socio-emotional needs? How? At a later point during analysis, and in-line with the findings from goal achievement literature, an additional question related to the focus of supportive acts was added, differentiating between those focused on learning outcomes and those more process-oriented comments.

Notably, any given followup is conceptualised as falling along a continuum from minimally responsive to highly responsive. Rather than considering it as a binary question of *whether* a

followup is responsive, it is consideration of *how* a followup functions within teacher-student interaction. Considering each type of act in relation to these questions supported the creation of what is effectively a decision tree, a support tool designed to assist in the determination of the responsiveness underpinning a given act. The branches and nodes to the left relate to the more cognitive aspects of teacher responsiveness and inclusion, with a particular focus on the uptake of student ideas. The right-hand side addresses affective dimensions of responsiveness.
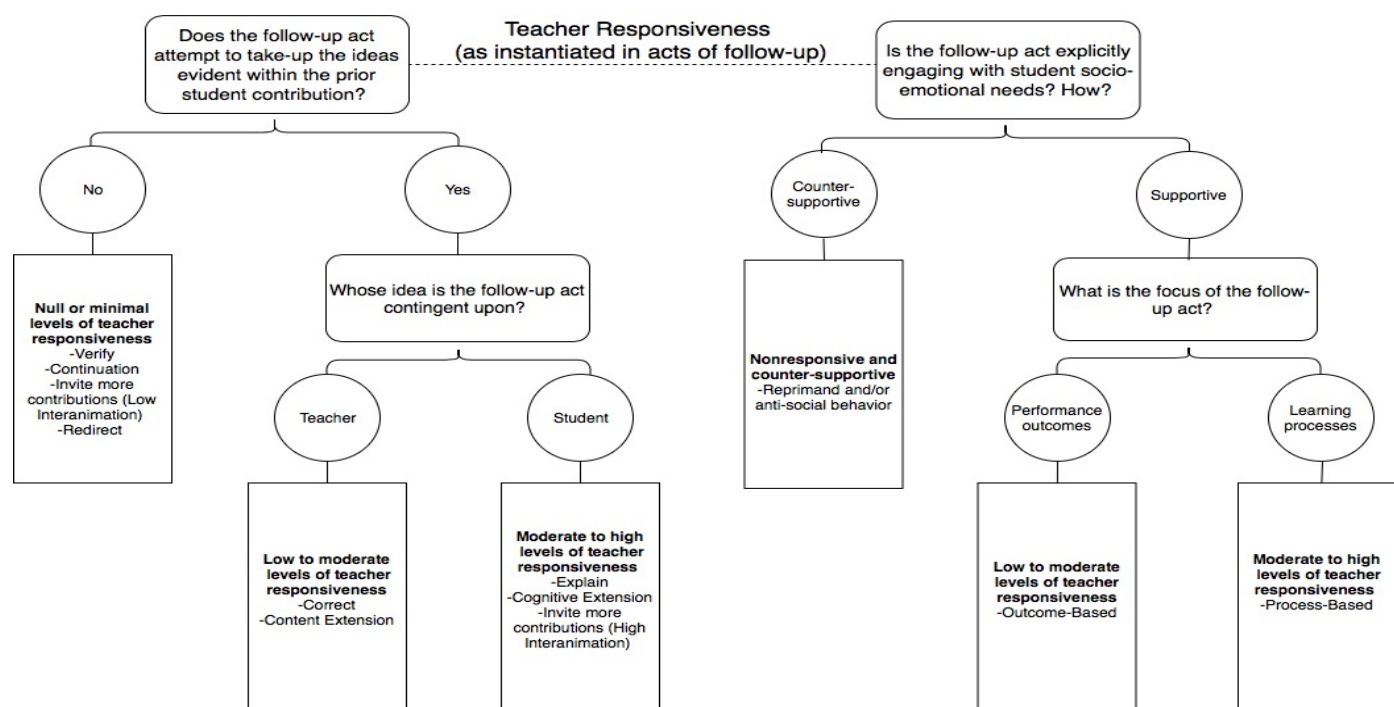
Figure 6.4 Coding decision tree

In asking the simple question 'does the followup act attempt to take-up the ideas evident within the prior student contribution?' it becomes possible to isolate those acts wherein responsiveness is effectively absent or minimal. As can be seen in the following Table 6.2, several acts (including verify, continuation, invite more contributions, and redirect) fall within this lowest responsiveness range, failing to take-up or incorporate the student-generated ideas into the framing of the followup act.

Table 6.2

Characterization and examples of followup displaying null or minimal responsiveness

Responsiveness	Specific Act	Example
Null or minimal levels of teacher responsiveness to student thinking Acts that do not attempt to take-up the ideas evident within the prior student contribution.	Verify Statements or questions which provide a simple evaluative verbal or nonverbal reply indicating the correctness of the prior student response.	1. Mr. Joseph: And how many oral literatures we have or just mention examples of oral literatures we have? Yes. 2. Student 1: Play. 3. Mr. Joseph: Ha! **No.** 4. Mr. Joseph: Uhuh. (Indicating that another student may speak)
	Continuation Statements or questions that reflect a continuation of the teacher line of thinking or questioning as it would continue regardless of the prior student response	(*Mr. Iddi is introducing students to how to read a family tree which he has drawn on the blackboard*). 5. Mr. Iddi: Who is Anita? Yes, stand up. 6. Student 1: The mother of Daudi. 7. Mr. Iddi: The mother of Daudi. 8. Mr. Iddi: Thank you. **Who is Jose** 9. Student 2: The father of Peter 10. Mr. Iddi: The father of Peter 11. Mr. Iddi: **Who is Aisha, Who is Aisha, Who is Aisha**
	Invite more contributions (Low interanimation) Invitations for other students to attempt a question already answered, enabling a teacher to gather multiple responses to the same solicitation.	12. Madam Winnie: Why active resistance, why active resistance, why active. Why active. Why active. Yes. 13. Student 1: Geographical position 14. Madam Winnie: The geographical position. 15. Madam Winnie: A**nother one.** 16. Student 2: Existence of powerful leaders. 17. Madam Winnie: Existence of powerful leaders. 18. Madam Winnie: **Another one.**
	Redirect - Abandon Statements or questions which shift the focus or activity in a way that is unresponsive to the level of mastery displayed in prior student contributions.	19. Student: Twenty over forty. 20. Mr. Erasto: Hah! Oh no. Twenty over forty is like this one [*teacher points to blackboard*]. Twenty over forty….because numerator is smaller than denominator. This is supposed to be called proper fraction. **Another type is number, eh, another type we have mixed numbers, number three is mixed numbers….**

The extracts included in the above figure illustrate how a teacher can followup on a student contribution without taking up the ideas evident within it. Whereas in analysing acts categorized as *verify* and *continuation*, this lack of uptake is evident within the followup move itself, to classify *invite more contributions* and *redirect* as minimally responsive requires additional consideration of the surrounding context.

Acts categorized as *invite more contributions* were further examined during this interpretive phase of data analysis in order to determine the extent to which this type of act was employed to support the interanimation of ideas (Bakhtin, 1981 as cited in Scott et al., 2006), if not immediately, then after several student contributions have been collected. Despite the possibility of this type of act being highly responsive, analysis reveals that the tendency to invite more contributions rarely results in a process of further developing the contributions. While, if interanimation were occurring, this act would need to be reconceptualized, its absence confirms the fact that this type of act is not typically utilized to enable teachers to take-up the ideas evident within prior student responses, but rather, for some other pedagogical purpose. Thus, it has been characterised by null or minimal responsive.[39]

Similarly, while *redirect*, by its very definition, is not responsive to the prior student utterance, because classroom talk is cumulative, the decision to redirect may reflect responsiveness to the cumulative level of mastery displayed across multiple student responses. In these instances, the choice to redirect would have hinged upon not a single prior student utterance, but several, and would be considerably more responsive. Analysis suggests that this is often the case. Redirect is often used as a discursive device to shift pedagogical activities or engage in a natural and appropriate instructional progression. In these instances, *redirect* is further coded as *progress*, and should be conceptualized as fundamentally more responsive. However, analysis also reveals the predominance of instances in which redirect is used to abandon a line of inquiry, and is therefore fundamentally nonresponsive to the misconceptions evident within prior student responses. In these instances, redirect is appropriately categorized as an act of null or limited responsiveness, and it is this type of act that is included within this leaf on the decision tree.

Acts classified by null or minimal levels of responsiveness to more cognitive aspects of student contributions can be contrasted with acts in which the teacher does take up the ideas evident within the prior student response. Herein, the next node or attribute relates not only to whether or not the ideas evident within the prior student response are incorporated into the framing of the followup act, but to whether or not the followup act reflects some degree of

---

[39] However, within the decision tree, the act when resulting in high interanimation is reclassified within the moderate to high responsiveness range.

adaptation as a function of the capacities and knowledge made evident by the student. This is exemplified in the following transcript extracts in the bolded teacher followup moves.

Extract 6.1
(*Mr. Erasto has written several fractions on the blackboard and is inviting students to apply their knowledge of the relative magnitudes of the numerator and denominator in order to generate examples of proper fractions*.)
1. Mr. Erasto: Here, mention the example.
2. Student 1: One over two.
3. Mr. Erasto: **Very good, can you clap hands for her. She says one over two, very good.**
4. Mr. Erasto: **Another one, yes. (*Nods at another student to speak*)**
5. Student 2: Two over three.
6. Mr. Erasto: **Two over three.**
7. Mr. Erasto: **Is she correct isn't it?**
8. Choral Response: Yes.
9. Mr. Erasto: **Again clap hands for her.**
10. Mr. Erasto: Next **(*Nods at another student to speak*)**
11. Student 3: Two over one.
12. Mr. Erasto: **Ha! No, no, no.**
13. Mr. Erasto: **Mhm (*Nods at another student to speak*)**

In the above extract, Mr. Erasto is minimally responsive to all student contributions. His followups are consistently composed of two basic acts, verify and invite more contributions with the addition of supportive feedback (clapping, 'good'). Through the use of verification he is able to quickly acknowledge a response as correct or incorrect and then select another student to contribute. In the instance in which an incorrect response is provided by Student 3, he still limits his response to verifying correctness, informing the student that the answer is incorrect without any additional clarification. Through this patterning of discursive acts, Mr. Erasto is able to rapidly gather multiple student responses without incorporating any of them into his acts of followup. This can be contrasted with the following extract in which the teacher not only verifies correctness, but provides insight into why a particular response has been deemed correct or incorrect.

Extract 6.2
14. Mr. Emmanuel: T: I want you to do something, eheh, make a sentence. (*Mr. Emmanuel is inviting students to generate sentences using simple present to express the routine of groups of people*) Yes.
15. Student 1: Students are reading everyday
16. Mr. Emmanuel: **Students**
17. Student 1: Are reading everyday
18. Mr. Emmanuel: **Where did I use eh are or, before the verb, I didn't put any word before the word here, and you are talking about reading, I didn't tell you about reading here. Can you correct your sentence.**
19. Student 1: Student read every day

20. Mr. Emmanuel: **Students you are talking about group, students.**
21. Student 1: Students read every day.
22. Mr. Emmanuel: **Students read what, yes they read what.**
23. Student 1: Book
24. Mr. Emmanuel: **What kind of book, huh (*The student twirls in her spot but does not speak*)**
25. Mr. Emmanuel: Just sit down, think twice, make a correction of your sentence, huhu, yes. (*Nods at another student to speak*)…

Mr. Emmanuel extends his interaction with a single student, using a series of verbal cues to invite the student to correct his initial contribution. The corrective maneuvers embedded within Mr. Emmanuel's followups enable him to clearly take-up the misconceptions he has noted as embedded within the student contribution. In the first instance, he highlights issues related to the student's use of the verb *to be* and the present progressive form of the verb *to read* (Line 18). Upon correction by the student (Line 19) Mr Emmanuel continues by noting the singular form of the noun 'student' in what should be a sentence about the routine of multiple students (Line 20). Finally, Mr. Emmanuel highlights the lack of specificity within the sentence (Line 22). In this extract, the student generated sample sentence underpins the teacher followup acts, whereas in Extract 6.1 no such uptake was noted. Given this interpretation, corrective acts such as the ones displayed by Mr. Emmanuel are categorized by low to moderate levels of responsiveness.

The second and final decision point on the coding decision tree revolves around the extent to which the teachers' followup act is contingent upon the student response. In asking the simple question 'whose idea is the followup act contingent upon?' it becomes possible to distinguish between those acts ultimately contingent upon the ideas and priorities of the teacher, and those which more explicitly place the ideas of the student at the centre. While those acts that are calibrated to the teacher's thinking are considered responsive, they are categorized by a low to moderate level of responsiveness. Acts calibrated more authentically to student thinking are categorized by moderate to high levels of responsiveness. As can be seen in the following table, the corrective act displayed by Mr. Emmanuel, as well as acts that support content extension, fall within the low to moderate range of responsiveness. While these acts do demonstrate evidence of take-up, analysis clearly indicates that the content of the followup acts steers discourse along the predetermined path prioritized by the teacher rather than more holistically adapting as a function of the ideas evident within the student response.

Table 6.3

Characterization and examples of followup displaying low to moderate levels of responsiveness

Responsiveness	Specific Act	Example
Low to moderate levels of teacher responsiveness to student thinking There is basic engagement with the ideas present within the student response, but ultimately it is the ideas which the teacher is seeking rather than that of the student which remain focal within the followup act.	Correct Statements or questions which seek to replace an incorrect student response with one deemed correct.	Elicited from original student (question) 1. Student: Songea and [name] goes shopping every Friday. 2. Mr. Emmanuel: **Why goes. Eh, why goes. Can you correct your sentence. Eh. Why goes. We have here go, drink, play, eat, come. Can you make a correction of your sentence.** Provided by teacher (statement) 3. Mr. Mwakanosya: What do we mean when say it's a branch of knowledge. Uhuh, I want to see hands, yes. 4. Student: The way I understand, if they say branch of knowledge is something that makes a person or people to understand more about it 5. **Mr. Mwakanosya: Uhuh, uhuh, something that makes or helps person to understand more. So the same as saying it's a study isn't it.**
	Content Extension The use of a question or statement which leverage the ideas evident within the prior student response in order to continue with the discursive production of canonical knowledge.	6. Mr. Emmanuel: How many types of verbs do we have 7. Student 1: Two types 8. Mr. Emmanuel: Yes, **number one**? 9. Student 2: Main verb 10. Mr. Emmanuel: **Number two.** 11. Student 3: Auxiliary verb 12. Mr. Emmanuel: **Now, who can tell me how many types of main verbs we have. Yes.**

Returning briefly to the transcript Extract 6.2, it is clear that Mr. Emmanuel had taken up the sentence presented by the student. However, the focus within his followup acts remains on the correct knowledge Mr. Emmanuel is seeking to impart rather than how the student is making sense of present simple tense. The focus appears to be on ensuring that students are exposed to the most correct version of the sentence. Had the focus been on the content of the student response, the teacher would have likely taken the time to examine the relationship between the present progressive tense used by the student and the present simple tense he sought to target. This can be contrasted with acts characterized as moderately to highly responsive, in which followup acts not only incorporate student ideas, but make them focal and actively adapt to them. This higher level of responsiveness is illustrated in the following extract.

Extract 6.3
(*To initiate the interaction, Mr. Joseph invited students to define oral literature.*)
26. Student 1: Practiced before the discovery of writings.
27. Mr. Joseph: It was practiced before the discovery of writings.
28. Mr. Joseph: Is he correct? Is he correct?
29. Choral Response: No/Yes (Mumbled, indicating lack of clarity)
30. Mr. Joseph: You are not sure.
31. Mr. Joseph: Warini, may I ask you a question, is nowadays we have oral literature or not?
32. Student 1: We have them but it was practiced before discovery of writings.
33. Mr. Joseph: We have them but it was practiced before it was discovered before the discovery of writings. Warini is correct. **Oral literature was practiced before the discovery of writings. People didn't know how to write so they used words of mouth to present their knowledge, their message to society but even after discovery of writing we use oral literature, so now we use both of them.**
34. Mr. Joseph: And how many oral literature so we have. Or just mention examples of oral literatures we have? Yes.

Mr. Joseph's first followup (Line 27-28) leverages a quick choice elicitation to verify the correctness of Warini's response. As noted in the previous chapter, while this form of verification demonstrates responsiveness to the rest of the class, shifting them from passive recipient to active participator, in relation to Warini, responsiveness remains the same, to provide knowledge of results. However, upon receiving an indication that the remainder of the class is unable to provide verification (Line 29), Mr. Joseph takes the time to further engage with the ideas evident within Warini's contribution. He first asks a clarifying question (line 31), creating an opportunity for Warini to explain his thinking. He then provides additional explanation himself (Line 33), further building upon the student's idea rather than his own. In this way, Mr. Joseph demonstrates responsiveness not only to the correctness of Warini's response, but to the substance underpinning it. While not sustained, Mr. Joseph momentarily diverts attention away from his pre-planned instructional path, responding flexibly to Warini's idea and giving time and space to explore its implications. In doing so, Mr. Joseph demonstrates how a followup act can be contingent not upon the priorities of the teacher, but rather, upon the ideas generated by a student, supporting the fortuitous opportunity to further scaffold student understanding of the target concept. Notably, he ultimately terminates the interaction, returning to his original line of inquiry rather than incorporating the idea into ongoing classroom discourse. While relevant in the later discussion about written literature, at no point are the ideas evident within Warini's contribution returned to.

Despite limited follow-through, the communicative acts employed by Mr. Joseph demonstrate higher levels of teacher responsiveness. Both explain and cognitive extension are classified as acts supporting moderate to high levels of teacher responsiveness to student thinking, as is displayed in Table 6.4.

Table 6.4
Characterization and examples of followup displaying moderate to high levels of responsiveness

Responsiveness	Specific Act	Example
Moderate to high levels of teacher responsiveness to student thinking Acts that do attempt to engage with the ideas evident within the prior student contribution, and place student-generated contributions at the centre of the followup act. Note that high levels of teacher responsiveness are only achieved when acts incorporate the prior student contribution into ongoing classroom discourse, adapting instruction in order to build upon or extend the student-generated idea.	Explain Statements or questions which attempt to provide or elicit additional information about the student response in order to make the student contribution known in greater detail.	Elicited from original student (question) but then teacher provided (statement) 1. Mr. Ripidius: What is the meaning of dictionary? 2. Student: It is a book that gives a word in a certain language in alphabetical with their meaning. 3. Mr. Ripidius: Okay, **what do you mean when you say arranged in alphabetically. Means? Uhuh.** 4. [No Response] 5. Mr. Ripidius: Okay, another person. Another. **Alphabetically means from A to Z.** 6. Mr. Ripidius: Okay but before going on let us remind you something which you have discussed about. Okay, the uses of dictionary, the uses of dictionary. We use the dictionary first to find the meaning of the words. Another is about translation….
	Cognitive Extension Statements or questions which attempt to move the ideas or understandings in the prior student response forward by adding to or extending the students original response.	7. Mr. Norbert: And, another (type of equation), Gurumbu. 8. Gurumbu: Simultaneous equations. 9. Mr. Norbert: **Simultaneous equations, yes, simultaneous equations. Who can give us example of simultaneous equations? Yes. Example, Kibwana.** 10. Kibwana: [*inaudible. States an equation which the teacher writes on the blackboard*] 11. Mr. Norbert **Is equal to 10, is it, so if we separate them we have the two equation, isn't it. This is roman 1 and this is 2. So if we separate them, this is one equation and this is the other. Which kinds of equations are they, the first one is, in which type of equation.**
	Invite more Contributions (High Interanimation) Instances in which the teacher collects multiple responses to the same question and ultimately compares and contrasts	12. Mr. Norbert: Example of quadratic equation, anyone 13. Student 1: x2+14 14. Mr. Norbert: x2+14, yes, only this? 15. Student 1: x2=14 16. Mr. Norbert: x2=14, is he right? 17. Choral: [mumble] 18. Mr. Norbert: Yes 19. Student 2: x2+, continue with that one?

	the various responses, supporting high levels of interanimation.	20. Mr. Norbert: Yes continue with this one 21. Student 2: x2+14x-6=0 22. **Mr. Norbert: Is he right? Even this one was right, 4x2+14 is it, we have quadratic equation and quadratic expression isn't it, expression we have just one side, without equal sign, we call quadratic expression, he was right so x2+14= to this one.**

The other branch considers the additional affective acts often embedded within teacher followup moves. As previously described, extant research indicates that it is not only student access to the curriculum, but the creation of a supporting trusting classroom dynamic that contributes to students' adaptive patterns of engagement and ultimate inclusion in the classroom. Thus, the branches and nodes to the right relate to more affective dimensions of teachers' followup moves as instantiated in the use of particular supportive or counter-supportive communicative acts.

In asking the question 'is the followup act explicitly engaging with student socio-emotional needs' any acts that do not include explicit positive or negative reinforcement are excluded from analysis. This aligns with the objective of developing a descriptive rather than an inferential coding scheme. As can be seen in the following Figure, only one act, reprimand or anti-social reinforcement, falls within this counter-responsive range, with explicit potential to negatively impact student socio-emotional wellbeing. The remaining two more positive acts are differentiated as a function of focus, whether it be performance outcomes or learning processes. While an emphasis on performance outcomes, in accordance with the literature on student motivation and goal orientation theory, enables low to moderate levels of teacher responsiveness, acts oriented toward learning processes are interpreted as supporting higher levels of teacher responsiveness to student socio-emotional wellbeing.

Table 6.5
Characterization and examples of followup related to retrospective-affective acts

Responsiveness	Specific Act	Example
Non-responsive and counter-supportive	Reprimand or anti-social reinforcement Negative statements about students' abilities and/or effort, and negative nonverbal behaviors.	1. Mr. Emmanuel: Yes (*the teacher points to a student, indicating that she can give an example sentence expressing group routine*) 2. Student: Asha and Amina are going to play. 3. Mr. Emmanuel: Mnm [*Kiswahili*] have you seen what we are doing here? Are you very stupid?
Low to moderate levels of teacher responsive to student socio-emotional wellbeing	Performance-based reinforcement	4. Student: My mother name is [name], my father name is [name] my sister is [name] my brother name is [name]…my grandfather name. 5. Mr. Iddi: **Okay good, clap hand for it**. [*students clap*] 6. Mr. Iddi: Stop. **Very good answer. He is good in explaining his what. His family**. Who can try. Who can try to say something about his or her family again.
Moderate to high levels of teacher responsive to student socio-emotional wellbeing	Process-based reinforcement	7. Mr Michael: Okay anyone who can try to speak it in English? 8. [No response] 9. Mr. Michael: **[Kiswahili] Try. We are not fluent, no. [English] Even me, I am not fluent. So, don't feel shy. Please anyone try to explain it in English. Eh. You try.** 10. Student: Some societies pose their leader was scared to fight colonialist, there was fear and lack of confidence so they collaborate with Germans, to fight no they collaborate with Germans so as to get. 11. Mr. Michael: **The problem is you got worry in your heart. You are presenting but you have worry. You have worries in your heart. [Kiswahili] worries. Why [English] Can't you have confidence.**

As was demonstrated above, for the majority of acts, analysis highlights that it is not a binary question of whether an act is or is not responsive. Indeed, the majority of acts maintain at least minimal levels of responsiveness, acknowledging if not taking-up the ideas underpinning student contributions, and incorporating if not more explicitly focusing upon the thinking evident in those contributions. In the case of responsiveness to students' socio-emotional needs, only those acts that are explicit are included in analysis; however, analysis reveals that teacher's do employ a diversity of discursive devices which encourage and support student wellbeing to varying degrees. Analysis also describes how some acts are less responsive to students' cognitive and socio-emotional wellbeing than others, and that these acts are more dominant in the observation research. It is these cases that were further

investigated in order to contribution to the construction of an explanatory framework for why and how teacher (non)responsiveness unfolds within the classroom.

As a result of this analytical process, communicative acts identified as falling within the lower to moderate ranges of responsiveness were further investigated. The question driving analysis shifted from an examination of how particular acts are responsive to consideration of the most salient instructional or interactional outcomes in acts characterized by minimal or moderate levels of responsiveness. A line-by-line reading of the raw data categorized in the lower ranges of responsiveness was undertaken, guided by several sub-questions including: 'What is the act, either overtly or implicitly, responding to? What are the salient outcomes?' and 'What else could have been done to increase responsiveness to student learning or socio-emotional wellbeing?' Analytical memos (Saldaña, 2013) were constructed using the categories of coded content. For this process, content was exported to Microsoft Word documents for each of the NVivo nodes, and the comment feature on Microsoft Word was utilised in order to support efficient visual access to all memos related to a given code through a quick visual scan. The memos characterized the nature of communicative acts in terms of most salient outcomes. That is, what are teachers attending to in acts of followup in instances where responsiveness to student ideas or socio-emotional wellbeing is seemingly not the primary objective? A sample of two analytical memos can be viewed in Figure 6.5 below.

Reference 4 - 2.40% Coverage

SNVG: Some societies pose their leader was scared to fight colonialist, there was fear and lack of confidence so they collaborate with Germans, to fight no they collaborate with Germans so as to get.
T: The problem is you got worry in your heart. You are presenting but you have worry. You have worries in your heart. [Kiswahili] worries. Why [English] Can't you have confidence. The problem is you got worry in your heart. You are presenting but you have worry. You have worries in your heart. [Kiswahili] worries. Why [English] Can't you have confidence.

Lisa Walker
This encouragement seems qualitatively different. It is focused on emotional support through teacher attention to the student's emotional needs, responding to her apparent 'worries'

Reference 5 - 2.01% Coverage

SVB: Some of the they come to collaborate with Europeans [inaudible sentence] in order to fight against their enemies and they think if they fight their enemies they will come to live in control with Europeans. [this is another frequent volunteer].
T: Eh very good what you have explained is good. Clap the hands.
[All students clap]

Lisa Walker
The focus has returned to the correctness of the student response. It is responsive, but less so to student socio-emotional wellbeing and more so performance outcomes.

Figure 6.5 Sample Analytical Memo

In accordance with the recommendations put forward by Saldaña (2013), analytic memos were then treated as data unto themselves, and a coding process similar to the one detailed above was implemented in order to identify the core functions and outcomes underpinning acts defined by lower ranges of teacher responsiveness. Memos consistently revealed the presence of several 'events' (CR terminology) underpinning acts characterized by minimal to

moderate levels of responsiveness. For instance, memos consistently noted an emphasis on the maximisation of rates of student participation and the efficient discursive production of 'correct' knowledge.

Data gathered through the stimulated recall interviews was integrated into the analytical process at this juncture, providing a mechanism to triangulate key findings. Stimulated recall data were reviewed side-by-side with the lesson observation transcripts, and confirming and disconfirming evidence from the interviews was incorporated into analysis. Teacher-generated insights provided an opportunity to consider how teachers themselves tended to conceptualize their discursive strategies, and drew attention to several of the assumptions, beliefs, and experiences underpinning their reasoning.

Ultimately, the analytical process revealed how responsiveness to students' cognitive and affective needs is often undermined by other instructional outcomes, including: the transmission of 'correct' knowledge, the maintenance of the pre-planned instructional path and the maximization of rates of student participation. The identification of these categories does not indicate that teacher responsiveness to the substance of student thinking or affective needs is either present or absent, as a single communicative act can support alternative ends while still containing low to moderate levels of responsiveness to student learning or socio-emotional needs. Rather, the identification of patterns of behaviour supportive of outcomes that are less focused on the students themselves contributes to the construction of an explanatory framework for teacher (non)responsiveness, and, by extension, processes of inclusion and exclusion in the classroom. Consideration of the salient outcomes influencing teacher practice further enabled inferences to be made about why processes related to educational inclusion are and are not manifest in teacher moves. Aligning with the analytical process outlined in Chapter 3.7.4, this enabled for a tentative identification of potential generative mechanisms at play. These are explored in the final discussion section of this chapter.

6.3 Findings

This section presents a consideration of instances in which the degree of responsiveness is particularly well-suited or maladaptive given observable evidence of students' needs. The analytical process revealed how several empirically observable discursive acts, embedded

within teachers' followup moves, derive from a deeper level of 'event' (CR terminology) whereby an emphasis on three pedagogic outcomes in particular tend to constrain teacher capacity to engage in responsive instruction. The first three sub-sections are structured around the most common patterns of observed teacher behaviour and associated pedagogic outcomes. Sub-section 6.3.1 examines several followup behaviours indicative of a steadfast focus on the transmission of correct knowledge. Sub-section 6.3.2 explores how several followup moves suggest an emphasis on maintenance of the pre-planned instructional path. Sub-section 6.3.3 examines data that suggests that the discursive patterns evident within teachers' followup acts are underscored by an emphasis on ensuring that as many students as possible be given the opportunity to contribute to classroom discourse. Each sub-section details how particular followup moves are indicative of an emphasis on these alternative outcomes, explicating how these patterns of behaviour typically result in teacher-student dynamics characterised by minimal to moderate levels of teacher responsiveness. Notably, the analysis also illustrates how higher levels of responsiveness do not necessarily preclude teacher capacity to advance these other pedagogic outcomes. Section 6.3.4 presents a series of interactions, supported by particular followup moves, which are characterized by moderate to high levels of teacher responsiveness to student socio-emotional wellbeing as well as the substance of student contributions. While the patterns of behaviour highlighted within this final sub-section are considered as outlier cases as a function of frequency, their inclusion provides important insight into several 'bright spots' in local practice which can be learnt from and shared.

The following presentation of findings describes each pattern of behaviour in turn; however, it is important to note that teachers fluidly shift between these different categories, and that a single act often supports multiple ends. Within a single lesson, analysis revealed that teachers can and do move back and forth along the continuum from nonresponsive to low or moderately responsive acts. Notably, those acts characterised by moderate to high degrees of responsiveness are, as noted above, reflective of outlier cases, indicating that very rarely do teachers included in the sub-sample achieve higher levels of responsiveness as defined herein.

6.3.1 The discursive production of 'correct' knowledge

The analysis revealed how several specific discursive acts embedded within teacher followup moves suggest a steadfast focus on the transmission of correct knowledge to such an extent that critical opportunities to clarify or develop student-generated ideas appear to be forgone. While verification acts serve a variety of purposes, analysis indicated that one of the most salient outcomes of this type of act is the way in which it supports the efficient production of knowledge deemed correct by virtue of its inclusion in the syllabus. Similarly, the use of corrective acts, as well as outcome-oriented encouragement, often appear to undermine teacher capacity to engage with student-generated ideas, particularly in instances wherein they diverge from the canonical knowledge the teacher seeks to impart. The following section illustrates how several empirically observable acts derive from this deeper level of event (as it is referred to in CR terminology) whereby an emphasis on the communication of 'correct' knowledge constrains teacher capacity to engage in responsive instruction supportive of processes of educational inclusion.

Verification, by definition, is limited to an acceptance or rejection of the prior student response, and is typically characterised by the use of a single word such as 'yes', 'okay', 'good', or 'no.' Some of the benefits and limitations of verification are demonstrated in the following series of interactions observed in Mr. Joseph's Form III English lesson. In these interactions, Mr. Joseph uses oral questioning and answering as an instructional strategy in order to, as directed by the national syllabus, ensure students are able to 'mention different types of oral and written literature' (Tanzania National English Syllabus, 2005). Mr. Joseph's followup moves are based solely on the extent to which the prior student contribution conforms to the sought-after material, and this is then used as the basis for proceeding.

Extract 6.4
35. Mr. Joseph: And how many oral literature do we have or just mention examples of oral literatures we have? Yes.
36. Student 1: Play.
37. Mr. Joseph: Ha! No. Uhuh.
38. Student 2: [inaudible]
39. Mr. Joseph: (*Records it on the blackboard*). Another
40. Student 3: Regents.
41. Mr. Joseph: Regents (*Records it on the blackboard*).
42. Student 4: Epics.
43. Mr. Joseph: Epics.
44. Student 5: Parable.

45. Mr. Joseph: Okay enough. And, the second type is, type, which one, written literature….

In the above interaction, Student 1 provides a response which does not align with the particular knowledge Mr. Joseph is seeking (Line 36). Mr. Joseph therefore relies on a verification act (Line 37), providing an explicit verbal indication of disapproval which disregards the prior student response. The subsequent nonword vocal expression 'uhuh' is then used to solicit another contribution. This action prevents Mr. Joseph from utilising the potential connections underpinning the student response. While not clearly aligned with the definitions established within the Tanzanian national syllabus, Student 1 demonstrates his knowledge that a play is a performance delivered orally. Mr. Joseph's followup represents a missed opportunity to leverage the student's idea, which could have expanded the whole class's understandings of the similarities and differences between oral and written literature and demonstrated value for student perspectives. Thereafter, Mr. Joseph receives a series of responses (Line 38, 40, 42, 44) which conform to the 'correct' information he is seeking. By abandoning each student response before soliciting or providing more substantive information about each genre, he indicates that his primary objective revolves around the discursive production of 'correct' lesson material rather than more explicit attempts to clarify, probe, or develop student understanding.

Notably, upon receiving answers deemed 'correct', Mr. Joseph revoices the student responses (Line 39, 41, 43), an implicit indication of correctness which simultaneously functions to make the student contribution available to others in the class. By engaging in this echoing act, he is better able to ensure the student utterance becomes 'common knowledge' (Edwards & Mercer, 1987), creating space for that knowledge to be incorporated into ongoing classroom discourse. Despite the potential benefits of revoicing, and other forms of verification, rather than further developing student-generated ideas, such acts are typically used to close an interaction. As a result, the potential of this act to support higher levels of responsiveness is diminished.

In addition to the patterns of interaction illustrated above, analysis of the corrective acts employed by teachers highlights a similar emphasis on the transmission of correct information. An interpretation of discourse within which these acts are embedded suggests that they are often employed at the expense of more responsive attempts to connect 'correct' knowledge' to students' prior experience and (mis)understandings. While corrective

communicative acts reflect a more informational approach to evaluative feedback, working to replace rather than merely verify an incorrect answer, analysis suggests that the focus still diverts attention away from the substance of student thinking. This is particularly salient in the following interaction in which Madam Winnie is seeking to elicit the meaning of the academic term 'armed resistance'.

Extract 6.5
46. Madam Winnie: You there. Define armed resistance, what is armed resistance, armed resistance, armed resistance, what is it, or active resistance.
47. Student 1: It's a struggle conducted by Africans who are under colonial rule.
48. Madam Winnie: (*Directed at Student 1*) Struggle. There is something that is missing. Explain it well. (*Student 1 averts her eyes and sits down, indicating that she will not respond*)
49. Madam Winnie: What is active resistance, explain it, active resistance or armed resistance. Mhm. (*Directed at another student in the class who did not have her hand raised*)
50. Student 2: Armed resistance is involve, uses of weapons against Europeans.
51. Madam Winnie: Active resistance it involve the use of weapons or violence.
52. Madam Winnie: Why active resistance, why active resistance, why active. Why active. Why active. Yes. (*The teacher points to a student with his hand raised to answer*)

In the above interaction, the initial student responds with what Madam Winnie perceives to be an incomplete answer. Rather than supporting and working to develop the rich academic concepts embedded within the student response, including the notion of a 'struggle' and the term 'colonial rule', her followup positions her to dismiss these ideas and instead highlight the missing element of the response (Line 48). While this act reflects an attempt to build upon the student's initial response by creating space for self-correction, it does not reflect any attempt at adaptation as a function of the understandings the student has displayed. When the student does not respond, Madam Winnie accepts this without further probing or support, and nominates a typically active student in the front row to provide an entirely new response (Line 49).

When the second student provides what the teacher deems to be the appropriate answer, the teacher revoices the answer before proceeding to the next question. As noted above, revoicing the student response demonstrates acknowledgement of other students in the class, creating opportunity for the student response to be incorporated into ongoing whole class discourse. Instead of then adapting by drawing attention to the similarities and differences between the two responses, Madam Winnie focuses only on the response aligned to her perception of the correct answer, accepting it as evidence of whole-class knowledge, and

using it as an opportunity to bring the exchange to an end and progress to more content. It is in this way that her followup acts demonstrate a focus on progressing through 'correct' content rather than on adapting to, and building upon, the ideas brought forward through student contributions. Similar to the analysis of verification acts above, the use of this act results in a missed opportunity to incorporate student generated language and ideas, increasing the likelihood that students may become alienated and disengaged from classroom discourse and, over time, increasingly excluded from classroom teaching and learning.

In addition to analysis of the more cognitive dimensions of teachers' communicative acts, analysis of the socio-emotional support embedded within teachers' followup moves further indicates a focus on 'correct' knowledge and an emphasis on more performative rather than process-oriented aspects of student learning. Typically expressed through a quick phrase such as 'good work,' 'good job,' or by inviting students to recognize the correctness of a student response by giving a clap, analysis suggests that praise tends to prioritise student performance and learning outcomes. To illustrate, consider the differences between the followup acts used by Mr. Iddi and those used by Mr. Michael in Figure 6.9 above. Whereas Mr. Iddi emphasised student performance, inviting students to clap for 'it' (whereby 'it' refers to the correct response), Mr. Michael's followup moves attended to students' socio-emotional needs, responding to visible signs of student anxiety. He did so by first providing social support, building a sense of comradery through the statement 'We are not fluent. Even me, I am not. Don't feel shy, please.' By using the first-person plural personal pronoun 'we,' extant research suggests that Mr. Michael is demonstrating a consideration of the thoughts and feelings of others (Kacewicz, Pennebaker, Davis, Jeon, & Graesser, 2014). By then explicitly addressing the 'shyness' he observed, Mr. Michael sought to provide emotional support. None of his comments suggest an emphasis on correctness, performance, or outcomes; rather, the emphasis appears to be on the learning process itself. Far more often, retrospective-affective acts resemble those provided by Mr. Iddi, which emphasise performance outcomes over processes. This tendency to define success as a function of achievement rather than progress is indicative of a performance goal orientation. Such an emphasis has been linked to a variety of negative teacher behaviours including lack of persistence, avoidance of failure, and a general lack of adaptive instruction (Retelsdorf, Butler, Streblow, & Schiefele, 2010). These findings, in conjunction with extant research on teacher goal orientations, suggest that a focus on 'correct' knowledge has the potential to negatively influence teacher responsiveness and, by extension, inclusivity.

The above analysis is underscored by a recurring theme: Student contributions are often recognised to the extent that they enable teachers to communicate the 'correct' knowledge during whole class instruction. There is no doubt that the clear communication of particular facts, procedures, or ways of thinking serve as a vital component of classroom life in schools around the world. However, as aptly noted by Wegerif (2014) in his response to Matusov regarding the nature of dialogic pedagogy, 'Each curriculum 'fact' can be taught in a way that maintains and encourages creativity and freedom or in a way that limits creativity and freedom' (P. E9). The analysis herein demonstrates how an overemphasis on the transmission of particular knowledge deemed correct by virtue of its inclusion in the syllabus ultimately constrains not only student freedom, but teacher freedom as well. It limits teacher capacity to engage flexibly and responsively to support student inclusion, with the potential to distance students from the curriculum and negatively influence students' socio-emotional wellbeing.

The findings build upon those presented by Bartlett and Vavrus (2013) and Pontefract and Hardman (2005), demonstrating not only an emphasis on the transmission of standard 'correct' knowledge, but how such a focus constrains teacher capacity to acknowledge, draw out and build upon the ideas and understandings underpinning student responses. The types of followup acts highlighted herein do not position teachers to help fill the gap between that which students already know and that which they must come to understand. In accordance with a behaviourist orientation, 'knowledge is treated as discrete, sequential, and unambiguous' such that correct and incorrect answers can easily be distinguished (Vavrus et al., 2011). Learning is pursued through the simple building and strengthening of students' stimulus-response associations, with limited teacher sensitivity to the importance of encouraging or developing student-generated thinking. As is demonstrated in the final findings sub-section of this chapter, leveraging acts characterized by higher levels of teacher responsiveness better positions teachers to expose errors in student thinking and, as a result, to help students to develop a firmer grasp of the 'correct' knowledge which teachers seek to impart.

6.3.2 Prioritising the instructional path

A second category of salient outcome evident within the analysis of followup moves characterized by minimal to moderate levels of responsiveness is an emphasis on the

maintenance of the pre-planned instructional path. Analysis suggests that student contributions are often leveraged to direct discourse toward a predetermined instructional path, frequently resulting in missed opportunities to build upon or clarify the thought processes evident within student responses. Content extending acts, often employed in order to enable the rapid review of previously learnt materials, serve as a primary mechanism enabling teachers to progress through substantial amounts of content with minimal disruption. Similarly, analysis of continuation acts and invitations for more contributions suggests that these prospective acts are underscored by an emphasis on maintaining instructional pace and steering discourse formulaically along the predetermined instructional path to such an extent that responsiveness and inclusivity are undermined.

Content extending acts typically follow a student response accepted as correct, and are defined by a tendency to take-up the content of the student ideas to the extent that they contribute to the ongoing presentation of lesson material. This is exemplified in Madam Winnie's interaction with Student 2 in Extract 6.5 above. In the interaction, Madam Winnie accepts the definition of the second student as correct, indicated by her revoicing act. She then leverages this discursive device, incorporating the student contribution without adapting as a function of it. In her focus on the instructional path, she misses an important opportunity to draw student attention to the connection between the definition of active resistance and the reasons for its use. Her use of a content extender is contingent upon her own preconceived instructional agenda as opposed to the ideas underpinning the student response. In this instance, the act results in the development of a decontextualized list of facts rather than more substantive and interconnected schematic knowledge.

Content extenders, which also serves to initiate the next interaction, are typically also categorized as factual elicitations (See Chapter 5). As such, they enable teachers to tap into students' declarative knowledge, prompting students to supply a pre-determined answer. This is illustrated again in the following series of interactions observed in Mr. Emmanuel's Form I English lesson.

Extract 6.6
53. Mr. Emmanuel: How many types of verbs do we have
54. Student 1: Two types
55. Mr. Emmanuel: Yes, number one?
56. Student 2: Main verb
57. Mr. Emmanuel: Number two.

58. Student 3: Auxiliary verb
59. Emmanuel: Now, who can tell me how many types of main verbs we have. Yes.
60. Student 4: Two
61. Mr. Emmanuel: Two. One?
62. Student 5: Irregular.
63. Mr. Emmanuel: Irregular verb. And the other.
64. Student 6: Regular verb.
65. Mr. Emmanuel: Regular verb. Good. Who can give me the examples of regular verbs. Examples of regular.
66. Student 7: [inaudible]
67. Mr. Emmanuel: Uhuh. [Points to next volunteer.]

In the above series of interactions, Mr. Emmanuel employs content extenders in an intentional way, leading students to recall first the types of verbs, and then examples of them, through heavily controlled discourse. He leverages what Truxaw and DeFranco (2008) refer to as leading talk. While each prospective followup act does incorporate the prior student utterance, it does so only to the extent that it enables Mr. Emmanuel to continue to steer discourse along the predetermined path. While this act provides an efficient mechanism for maintaining pace, and ensuring that particular content is delivered and reviewed, its highly controlled nature does not support higher levels of teacher responsiveness. This type of teacher-student interaction makes it difficult for teachers to expose errors in student reasoning, and creates no space for building upon or developing student ideas in an adaptive or contingent way. In both instances, teacher-student interactions can be characterised by a process in which students are inundated with questions or statements about academic material, with no attempt to draw connections between student responses and ongoing classroom discourse. Instead, teacher followups continue resolutely to solicit additional language and ideas in-line with the progression of assessment questions expressed in the national syllabi and national textbooks.

The tendency to invite more contributions following a student response deemed incorrect also supports attempts at steering discourse along the predetermined instructional path. Analysis indicates that such invitations do not require students to build upon the prior student response. Rather, this act invites an entirely new or unrelated response, as if the prior student contribution had not been provided. As was demonstrated in the analysis of Mr. Emmanuel's solicitations in the previous chapter (See Extract 5.8), his use of applied elicitations enabled him to uncover the tendency among students to overextend the *-ing* and the present tense of the verb *to be*, conflating present simple and present continuous tense. While Mr. Emmanuel clearly identified this problem when reflecting on the quality of the lesson, his followup

moves did not reflect such recognition. Rather, he continued to invite additional students to contribute sample sentences. During the stimulated recall interview, Mr. Emmanuel explained that because the error made by students did not align with his pre-planned instructional path, it was not relevant to instruction. When asked if he felt students understood the lesson, Mr. Emmanuel explained:

Mr. Emmanuel: Some they do understand and some they are trying maybe to connect something else they have learnt before somewhere else I don't know where, that is why they trying to mix even some for example –ing. (Kiswahili) And you see that is not part of the lesson. (English) According to syllabus that one is taught in some time, not now. [020104A]

This quote was selected because it reflects a common concern shared by multiple teachers about the importance of adhering to the progression of the syllabus. Mr. Emmanuel references future lessons, whereas the majority of teachers reference past lessons; however, both cases are used as a rationale for choosing to continue with the pre-planned instructional path as opposed to responding to errors in student understanding. When reflecting on why he did not choose to adapt instruction in order to address confusion surrounding the relationship between whole numbers and fractions (See Extract 6.1, Line 11), Mr. Erasto explained 'I know that they have been taught in their primary level….so I took it for granted that they know' (010203B). This inference was drawn despite clear evidence of confusion embedded within student responses. It is indicative of a tendency to disregard student misunderstandings that do not align with the instructional supports prescribed within the appropriate age-grade syllabus. Similarly, Mr. Norbert often noted 'this concept is in primary' in order to defend the decision to disregard evidence of confusion. Such comments indicate that to revert to previously taught topics would be inappropriate when the source of the problem can be attributed to learning that should have been mastered in previous years. These reflections, and the followup acts they align with, indicate a very real concern regarding deviation from the prescribed syllabus. While, given the nature of the syllabus and challenges associated with high stakes testing, such concerns are warranted, the tendency to circumvent evidence of student misunderstandings in order to steer discourse along the predetermined instructional path often results in a level of non-responsiveness that is counterproductive. This dynamic is further discussed in the final discussion section of this chapter.

While the focus of analysis herein is on ensuring all students maintain access to the curriculum, a baseline indicator of inclusion, there were several instances in which teachers were so focused on the pre-planned instructional path that they failed to notice that students

were already sufficiently competent. For instance, in one Form I English lesson, the teacher spent a full 25-minutes inviting students to construct sentences about their likes and dislikes. The tendency to repeatedly invite more contributions without acknowledging clear indicators that students had mastered the task, resulted in a dynamic in which large segments of the class appeared under stimulated and disengaged, which is arguably just as alienating as failing to achieve a sufficient grasp of the material.

The interactions described above reflect a tendency amongst teachers to maintain tight control of classroom discourse, supporting a more didactic style of teaching. The patterns of behaviour embedded within teacher followup moves align with what Scott et. al. (2006) refers to as an interactive/authoritative approach whereby a 'teacher focuses on one specific point of view and leads students through a question and answer routine with the aim of establishing and consolidating that point of view' (p. 612). Given their authoritative nature, these acts tend to terminate possibilities for scaffolded instruction which might better position teachers to contextualise, clarify or develop the ideas shared by students. Ultimately, analysis indicates a failure to adapt institutional knowledge and its presentation from the formal confines of the syllabus or lesson plan to the language and ideas evident within student contributions. Corroborating the findings of Edwards and Mercer (1987), Banerjee et al. (2016), and Akyeampong, Lussier, Pryor, and Westbrook (2013) in British, Indian, and sub-Saharan contexts respectively, steadfast adherence to a pre-set lesson plan tends to take precedence over the need to predicate instructional acts on the needs of learners. The tendency to steer discourse along a pre-determined path often appears to come at the expense of more explicit and appropriate responsiveness to the affective and cognitive needs of learners, fostering exclusionary dynamics rather than processes of educational inclusion.

6.3.3 Maximizing the rate of participation

Analysis of both classroom observation and interview data reveals that the discursive patterns evident within teachers' followup acts are underscored by an emphasis on ensuring that as many students as possible be given the opportunity to contribute to classroom discourse. As was explored in Chapter 4, the tendency to invite multiple contributions in rapid succession creates space for several student voices to be heard. Followup acts including verification, continuation, and content extension all contribute to a teacher's capacity to rapidly move from one student generated response to the next. While achieving optimal efficiency in terms

of the maximisation of opportunities for student contributions, student-teacher interactions are, as a function of the cumulative nature of these acts, typically terminated before student ideas can be fully developed and articulated. In effect, these acts create space for more voices to be heard by limiting the amount of influence a given student response can have on ongoing discourse.

Extant research highlights that the creation of opportunities for student participation contributes to the creation of a supportive learning environment and fosters processes of educational inclusion (Jha, 2007), however, without appropriate levels of teacher responsiveness and support, these benefits cannot be fully realised. This section illustrates how several empirically observable acts derive from this type of event, whereby an emphasis on maximizing the rate of participation constrains teacher capacity to more fully take-up and adapt in relation to student ideas and misunderstandings. The analysis highlights a tension between attending to the fundamentally inclusive goal of ensuring that as many students as possible are enabled to participate, and teacher capacity to engage in supportive, responsive teaching, particularly given the predominance of whole class instruction in often overcrowded classrooms.

The benefits and limitations of combining verification acts with invitations for more contributions are illustrated in the following series of interactions observed in Madam Mdemu's Form III English lesson. The extract, which follows an eight-minute lecture in which Madam Mdemu introduced students to Type 1 Conditional sentences, illustrates how this common pattern typically unfolds in the lessons observed in this study.

Extract 6.7
68. Madam Mdemu: Now who can try to construct sentence by using conditional sentence type 1, using the formula, if + subject + simple present then the future tense will shall or will can be used. Yes who can try to construct, not different from the introduction which I have already give you. Whit yes.
69. Student 1 (Whit): Unless you write the poem you will not sing.
70. Madam Mdemu: Yes, Unless you write the poem you will not sing. Mhm clap hand for her.
71. *[Students clap]*
72. Madam Mdemu: Yes another one.. another one. I will feel more comfortable if you raise up your hand and try. Yes Omari.
73. Student 2 (Omari): Unless you study hard, you will not pass the exam.
74. Madam Mdemu: Yes, clap hand for him.
75. *[Students clap]*
76. Madam Mdemu: Yes another one, Hawa

77. Student 3 (Hawa): Unless I know them I will not help them.
78. Madam Mdemu: Unless I know them I will not help them. Yes clap hand for her.
79. [Students clap]
80. Madam Mdemu: Yes another one. Boys you are so quiet boys can you try. Yes Habiba.
81. Student 4 (Habiba): If you pass examination, I will give you a gift.
82. Madam Mdemu: If you pass examination, I will give you a gift. Clap hand for her.
83. [Students clap]

Analysis of this series of interactions, in conjunction with the reflections shared by Madam Mdemu in the post observation interview, suggests that one of the primary objectives of this whole-class exercise was to bolster the rate of participation. As was described in Chapter 4, throughout the lesson Madam Mdemu employed several proactive turn allocation strategies, indicating a sense of personal responsibility for the allocation of turns to a diversity of students. In reflecting on her use of sentence construction exercises during whole class instruction, Madam Mdemu explained 'I try to make so many times for practice. To keep the class interactive. Those students must be active. Learning must be active or students can't remember' [020402A]. In alignment with her stated priorities, Madam Mdemu's followup moves, which include only brief and noninformative retrospective acts before quickly seeking to initiate another interaction, enable her to maximise the number of student turns at talk. While supporting the creation of a highly interactive classroom dynamic, the limited nature of Madam Mdemu's followup moves highlights how, while 'different ideas are made available on the social plane' (Scott et. al., 2006), this does not necessarily lend itself to increased teacher responsiveness.

A defining characteristic of this combination of acts (verify combined with invite more contributions) is the absence of attempts at interanimation (Scott et al., 2006), a process of developing students ideas in a shared way by examining similarities and differences. Analysis of this series of interactions suggests several pathways available for Madam Mdemu to build upon student responses. For instance, she could respond to a given student contribution by clarifying the underlying grammatic form, or by comparing and contrasting multiple sentences on the basis of the use of the word 'if' or 'unless.' No such attempts at uptake or more substantive adaptation are evident. Indeed, as noted by Madam Mdemu during the stimulated recall interview 'You can't stay with one too long. You proceed to touch upon as many students as possible.'

The omission of more informative or dialogic feedback[40] which attempts to take up and develop student contributions constrains Madam Mdemu's capacity to more meaningfully leverage and extend the benefits of the interaction to the whole class. It is this distinct lack of interanimation (Bakhtin, 1981), this absence of any attempt to compare or contrast the ideas evident within student contributions, that underscores the hypothesis that the objective is to maximize the rate of participation, constraining teacher capacity to attend to other dimensions of the teaching and learning process. Notably, in several lessons, this combination of acts serves as one of the primary patterns of behaviour defining teacher followup moves, resulting in whole lessons characterised by high rates of participation and concomitantly null or minimal levels of teacher responsiveness. This pattern resembles what Burns and Myhill (2004) refer to as a form of verbal table tennis in which a single teacher repeatedly bats a question to a group of up to 130 students, and students bid to receive a turn in response. Given that no student contributions are taken up beyond simple indications of correctness, opportunities for instructional adaptation and teacher responsiveness are typically not actualised.

The tendency to employ followup acts underpinned by a focus on maximizing the rate of participation often results in a sense of discontinuity, wherein ideas remain disconnected, and meaningful connections between core constructs or topics are not made explicit. This was noted in the analysis of Madam Winnie's lesson (Extract 6.5). As described in Chapter 5, Madam Winnie leverages knowledge-producing questions in order to solicit a list of reasons for why certain African tribes engaged in active resistance in response to colonial powers.

Extract 6.8
84. Madam Winnie: Why active resistance, why active resistance, why active. Why active. Why active. Yes. ((Two students raise their hands to bid for a turn. The teacher selects one boy near the front of the room)).
85. Student 1: Geographical position ((The student reads this term from his notebook)).
86. Madam Winnie: The geographical position ((Several students throughout the room flip through their exercise books)).
87. Madam Winnie: another one. ((Several hands now go up into the air. The teacher selects a boy near the back of the classroom)).
88. Student 2: Existence of powerful leaders. ((The student reads this term from his notebook)).
89. Madam Winnie: Existence of powerful leaders.

---

[40] As noted in Kluger and DeNisi's (1996) meta-analysis of the effects of feedback on student performance, feedback is more effective when it provides information on correct rather than incorrect responses.

90. Madam Winnie: Another one, yes ((Again, several hands have risen.The teacher selects a girl)).
91. Student 3: Existence of Islamic.
92. Madam Winnie: Existence of Islamic.
93. Madam Winnie: Eheh another one.
94. Student 4: Bogus treaties. ((Again, several hands have risen. The teacher selects a boy)).
95. Madam Winnie: Another
96. Student 4: Existence of traditional enemies.
97. Madam Winnie: Is it? (0.4) Mhm. Another…
98. Madam Winnie: So that was all about the previous lesson…. So after seeing two ways of resistance, now today we are going to learn about the types of African resistance.

The above series of interactions, observed at the outset of the lesson, creates several opportunities. In addition to providing students with opportunities to speak, Madam Winnie's abbreviated approach to followup enables her to engage in an informal assessment of the class zone of proximal development, creating pathways for responsive instructional adaptation. It also has the potential to enable her to engage in more learner-centric instruction, prioritizing the expression of student generated ideas rather than the more traditional teacher-dominated form of instruction. However, analysis of this pattern of interaction, and the followup acts it is supported by, highlights the absence of attempts at recognizing or considering the multitude of responses gathered from students, resulting in important missed opportunities to assess, clarify, build upon, compare or contrast the responses articulated by students. Instead, the consistent use of this act, without attempts to work with the ideas shared, suggests that its primary purpose is related to supporting interaction but not to addressing students' learning-related needs. This is largely confirmed by Madam Winnie, who, when asked why she has engaged in oral questioning at the outset of the lesson, explained:

Madam Winnie: I want them to participate, I don't want to be there and lecture and lecture. That is for university. But for these students, at least you have to make them to participate so for them to understand. Sometime. They may not understand me but when a fellow student answer, maybe they will understand much more. [020306]

While Madam Winnie highlights the potential benefits of peer-based learning, her acts of followup do not provide the support required for such benefits to be actualised. Analysis of the remainder of the lesson reveals an absence of attempts at developing student contributions in relation to lesson material. Using the Maji Maji resistance as a case study to continue to apply the knowledge taught about active resistance, Madam Winnie referenced the various causes of active resistance mentioned by students at the outset of the lesson, including, though not limited to, the existence of powerful leaders (Kinjikitile). At no point in this

lecture-style instruction did Madam Winnie highlight or draw connections between the causes of the Maji Maji resistance and those mentioned by students in describing the reasons for active resistance. This omission hindered Madam Winnie's capacity to form meaningful connections between students' prior knowledge and the new knowledge she introduced.

This illustrates how a focus on the rate of participation can stifle teacher capacity to clarify and build upon student contributions. The danger is that, without leveraging followup moves designed to draw connections or build on student ideas, student contributions remain fragmented and decontextualized. This corroborates the findings outlined by Pontefract & Hardman (2005) in the Kenyan context, whereby this instructional technique increased the number of interactions within a given lesson, but 'rather than aiding understanding… it often fragmented lessons making them difficult to follow' (p. 94). In these instances, student participation reflects a ritualised event rather than genuine understanding, and does not promote access to the curriculum (Edwards & Mercer 1987).

The patterns of behaviour highlighted in this section are underscored by a tendency to leverage followup moves which enable teachers to solicit more ideas from more students while simultaneously maintaining a fundamentally authoritative approach[41] to classroom discourse. While opportunities are created for students to share their many answers, the emphasis remains, as was discussed in the prior section, limited to one specific point of view. With teacher followup moves failing to invite students to attend to, and engage with, each other's ideas, extant research indicates that the potential value of participation in terms of securing access to the curriculum remains limited (e.g. Webb et al., 2014), and the potential for more responsive and inclusive teaching and learning remains constrained.

As established in Chapters 4 and 5, the creation of opportunities for student participation contributes to inclusivity, creating space for student voice, and creating pathways for teachers to notice, interpret and engage with student needs. Yet, analysis suggests that, particularly given the large and diverse context of Tanzanian ordinary level secondary school classrooms, there is an inherent tension between maximizing the rate of participation and engaging in responsive, inclusive instruction. This is particularly evident in classrooms characterised by a

---

[41] Authoritative discourse is defined by a discourse that does not allow the bringing together and exploration of ideas, but rather, is focused on one specific point of view (Scott et. al., 2006).

high student to teacher ratio, whereby it becomes increasingly challenging for a teacher to engage in responsive instruction capable of meeting the needs of all learners. It is hypothesised herein that this apparent tension is particularly difficult to reconcile given the tendency to organize teaching and learning through whole class instruction noted in Chapter 3. Without leveraging the benefits of individual or group arrangements, which creates opportunities to maximise participation while providing contingent support in smaller and more manageable settings, maximising the rate of participation has the potential to result in maladaptive instruction that is less responsive to the needs of some learners. As was noted in Chapter 3, the limited use of these alternative classroom arrangements, in conjunction with teacher reflections, suggests that teachers lack the know-how required to properly leverage them, contributing to the events detailed herein.

6.3.4 Responding to student feelings and ideas: The 'bright spots'

As stated at the outset of this chapter, analysis of teacher followup moves suggests low overall levels of explicit responsiveness, indicating that the inclusive goal of responsive adaptation is often subverted by other instructional and interactional objectives. The findings reveal how the tendency to employ certain followup moves is reflective of an emphasis on teacher objectives rather than on the inclusion of learner thinking or explicit consideration of student socio-emotional wellbeing, constraining teacher capacity to engage in responsive adaptation. Despite these common tendencies, there are some outlier behaviours within the data, deviant cases which, while not necessarily reflective of the norm, provide examples of what best practice can and does look like in the context of the classrooms included within this study. Notably, the examples included herein demonstrate how higher levels of responsiveness do not necessarily preclude opportunities to achieve other salient outcomes. In particular, the retrospective act of providing explanatory feedback, and the prospective act of cognitive extension, both display higher levels of responsiveness to the substance of student ideas without undermining other instructional priorities. In addition, analysis indicates that the use of process-oriented rather than outcome-based encouragement, most explicitly through the use of what is referred to herein as positive sympathy, displays higher levels of responsiveness toward student socio-emotional wellbeing.

Explanatory acts, retrospective acts which attempt to provide or elicit additional information in order to make the prior student contribution known in greater detail, create clear avenues

for teachers to not only take-up, but to expand upon the ideas contributed by students. While fundamentally retrospective in nature, explanatory acts allow student reasoning to become central to the ongoing discourse, creating pathways for further adaptation as a function of student-generated ideas. As was demonstrated in extract 6.3, Mr. Joseph momentarily diverted attention away from his pre-planned instructional path, responding flexibly to an idea offered by a student, and augmenting the lesson by taking the time to explore the implications of the student idea. While he started with a simple verification act (also referred to as a choice elicitation), inviting other students in the class to act as judge, he then progressed to a more meaningful probe, asking the student 'Nowadays we have oral literature or not?' (Line 31). Through this followup question, the focus of discourse appeared to be squarely on how the student was making sense of the idea shared, regardless of the correctness of the response.

Mr. Joseph then dedicated time to the further pursuit of the student's idea, providing additional information in order to ensure that the student's reasoning was made fully transparent (Line 33). In this second move, the teacher's capacity to ensure the correct information was ultimately displayed was not undermined, but instead, strengthened. By providing additional explanatory comments, Mr. Joseph ensured that the correct interpretation of the material was made available to all members of the class. Through this combination of explanatory acts, Mr. Joseph demonstrated value for student voice while simultaneously taking the fortuitous opportunity to further scaffold student understanding of the target concept. Upon sufficient exploration, he diverted student attention through the use of a content extending act, demonstrating how higher levels of responsiveness do not necessarily need to result in major diversions away from the pre-planned instructional path.

Cognitive extension is a second followup act which displays moderate to high levels of responsiveness. Adapted from the definition established by Jordan, Lindsay, and Stanovich (1997) in their analysis of how teachers interact with exceptional, at risk, and typically achieving students, cognitive extension refers to questions or statements which attempt to move the ideas or understandings evident within a prior student response forward. As was highlighted in Figure 6.8, they are distinct from more explanatory acts in that they are not merely retrospective, but rather, incorporate student ideas into ongoing classroom discourse in more sustained ways. Cognitive extension is the only type of act which, by definition,

results in more extended processes of instructional adaption as a function of the ideas present in prior student responses.

This type of act, while rarely observed in lesson observation data, offers an important example of how moderate to highly responsive instruction can unfold within the classroom. One instance in which it is clearly observed, and the benefits apparent, is in Mr. Norbert's Form III maths lesson. The following series of interactions were observed at the outset of the lesson. Within the extract, Mr. Norbert is seeking to efficiently elicit the three types of equations students had previously learnt, a precursor to a new lesson introducing students to linear functions.

Extract 6.9
99.   Mr. Norbert: Before we proceed, types of equations. Yes, types of equations, Amina.
100.   Amina: Linear equation.
101.   Teacher: We have linear equation. Linear equations. Yes, another. Sadan.
102.   Sadani: Quadratic equations.
103.   Mr. Norbert: Quadratic equations. And, another, Gurumbu.
104.   Gurumbu: Simultaneous equations.
105.   Mr. Norbert: Simultaneous equations, yes, simultaneous equations. Who can give us example of simultaneous equations? Yes. Example, Kibwana.
106.   Kibwana: [inaudible. States an equation which the teacher writes on the blackboard]
107.   Mr. Norbert: Is equal to 10, is it, so if we separate them we have the two equation, isn't it. This is roman 1 and this is 2. So if we separate them, this is one equation and this is the other. Which kinds of equations are they, the first one is, in which type of equation. (Only one student raises her hand, Nasra.) Nasra.
108.   Nasra: Quadratic equation.
109.   Mr. Norbert: Quadratic equation, is she right? [no response] yes.
110.   Student: Linear equation.
111.   Mr. Norbert: This is what?
112.   Choral Response: Linear equation
113.   Mr. Norbert: One. (one indicates that students should clap, a form of positive reinforcement)
114.   Mr. Norbert: Okay so this is linear equation, why, who can tell us? Why is linear equation? […]

The interaction above is initiated with a simple factual elicitation requiring students to recall the different types of equations (Line 99). In what follows, both Amina and Sadani provide standard, expected responses deemed correct by the teacher. Following the correct responses (Line 101, 103) the teacher revoices the answers, verifying correctness and legitimizing the value of student contributions, while simultaneously demonstrating an awareness of the need for all students to participate as over-hearers. No additional questions are used to probe student understanding of the two types of equations mentioned, indicating a focus on the

progression through correct knowledge. It is only the erroneous response provided by Gurumbu (line 104) that results in a fundamental shift – from questioning to assess, to questioning to assist.

The misconception evident within Gurumbu's response prompts an unplanned instructional episode in which Mr. Norbert clearly leverages the power of instructional adaptation in order to increase student access to the curriculum. While revoicing is typically conceptualised as a mechanism supporting verification, in this instance, such an evaluative goal does not appear to be present. Instead, consideration of the revoicing act (Line 105) indicates that Mr Norbert does so in order to give himself time to think, enabling him to withhold an explicit evaluation. He then takes up the student's response, inviting other students to provide an example of a simultaneous equation. In this way, he shifts from reviewing types of equations to engaging in a more in-depth exploration of what a simultaneous equation is and how Gurumbu's response is related to other types of equations. Upon receiving an example and recording it on the blackboard, he uses this example to challenge Gurumbu's thinking, demonstrating how simultaneous equations are not a type unto themselves, but rather, composed of two distinct equation types. In doing so, he is able to invite students to find meaning in Gurumbu's idea through the process of incorporating it into classroom discourse. At the affective level, and as a function of his non-imposing and jovial intonation, Mr. Norbert is able to demonstrate that he both listens to and values the contributions of his students. His followup move is not only responsive to the substance of Gurumbu's ideas, but to her socio-emotional wellbeing. He is able to achieve this by addressing the misunderstanding evident in her response without any indication that he has undermined her identity as a student who is learning.

One major aspect of these highly responsive moves is that even in interactions defined by a high degree of responsiveness, not all of the individual acts employed by teachers are categorised as responsive. Mr. Norbert mixes verification acts with invitations for additional contributions and content extenders, and it is these acts that ultimately result in the use of a cognitive extension act. By withholding explicit appraisal, and adapting as a function of Gurumbu's idea (Line 105, 107), Mr. Norbert is able to use Gurumbu's error as a springboard for the next question, demonstrating an ability to recalibrate instruction after exposing an error in student reasoning.

As was previously noted, analysis of the socio-emotional support embedded within teachers' followup moves indicates a tendency to focus on more performative rather than process-oriented aspects of student learning. However, analysis reveals that teachers occasionally leveraged what Jha (2002) refers to as 'positive sympathy', acknowledging a student response in a supportive manner regardless of correctness. Through the use of statements such as 'good attempt' [020104A], 'good try' [010101B; 020204A; 020306B] or 'thank you for trying' [020204A], teachers position themselves to emphasise student effort rather than correctness alone. Such acts, which temporarily suspend the race to appraisal, are indicative of an awareness of the importance of not only particular correct knowledge, but of student voice and emotional wellbeing. While teachers would then rapidly proceed to solicit a more 'correct' response, typically through the use of the 'invite more contributions' act, extant research indicates that these types of acts reduce the likelihood that an incorrect response will discourage future participation and learning (Marvin, 1998). As such, they are associated with higher levels of responsiveness, contributing to the conditions required for students to continue to engage with, and feel valued as part of the classroom community.

Despite the potential power of these highly responsive acts in supporting the construction of an inclusive teaching and learning experience, explanatory feedback, cognitive extension, and positive sympathy emphasising process-oriented rather than performance-based outcomes are very rarely observed. Lessons are more often defined by a string of missed opportunities. For instance, in his steadfast focus on adhering to the pre-planned instructional path, Mr. Erasto missed important opportunities to clarify the relationship between fractions and whole numbers essential for securing student access to the curriculum. Similarly, in her focus on the production of the standard 'correct' definition, Madam Winnie missed an important opportunity to incorporate student generated language and ideas, increasing the likelihood that students may become excluded from classroom discourse. Contrastingly, in the examples provided in this sub-section, followup acts have been demonstrated to reflect an understanding of, and value for, the ideas and misconceptions underpinning student responses. These examples demonstrate how responsive teaching and the achievement of other salient outcomes are not necessarily mutually exclusive. They have illustrated how responsive teaching as conceptualised herein can and does emerge in the context of Tanzanian teaching and learning.

6.4 Discussion

This chapter has illustrated how several empirically observable discursive acts, embedded within teachers' followup moves, derive from a deeper level of 'event' (CR terminology) whereby an emphasis on three particular pedagogic outcomes has the potential to constrain teacher capacity to engage in responsive instruction. This final discussion introduces and explores the power of several generative mechanisms which, as detailed in Chapter 3, while by no means linear, direct, nor causal unto themselves, contribute to the emergence of these events.

Followup acts are typically characterised by a tendency toward noninformative evaluation of correctness, a rigid and formulaic progression through the curriculum, and an emphasis on maximising the rate of participation. While not mutually exclusive, analysis suggests that a steadfast focus on these outcomes tends to hinder teacher capacity to engage with, and build upon, the socio-emotional needs and ideas evident within student contributions. Given that the majority of teacher questions require the recall or basic application of previously established factual knowledge, as was examined in Chapter 5, the tendency toward appraisal by the teacher through explicit evaluation is not surprising. As noted by Morge (2005), on a purely pedagogical level, it implies that the teacher is assessing the gap between what has been taught and what students have remembered, and in this way, indicates some degree of responsiveness. Yet, the tendency to rely almost ubiquitously on evaluative acts before terminating interactions suggests a fundamentally authoritative interactional pattern in which responsiveness to evidence of student needs is secondary to the presentation and reinforcement of one standard, 'correct' point of view. This tension is most evident in instances in which student contributions do not align, either lexically or in terms of content, with teacher expectations. In these instances, followup moves are typically employed as a mechanism to terminate an interaction by diverting attention to the presentation of the standard 'correct' knowledge in-line with the predetermined lesson plan, compromising a teacher's capacity to engage in responsive adaptation.

As was noted in sub-section 6.3.1 this trend is indicative of a fundamentally behaviorist orientation toward teaching and learning. This inference has been triangulated through an analysis of teacher interview data. Most directly, it is supported by the ways in which teachers define education. As Mr. Joseph explained:

Mr. Joseph: When you mean transmission of knowledge from one person to another we say that is education. [010102B]

As noted by Mr. Jambia:

Mr. Jambia: [Education] means to give through telling. Making sure the students are aware. They have that knowledge. [Phone call, June 19, 2019]

These definitions reveal a consistent sense that knowledge is something that is predetermined and given from teacher to student. This finding was validated through the use of investigator triangulation (Johnson, 1997), whereby other researchers working within the Tanzanian context have highlighted similar findings (e.g. Bartlett & Vavrus, 2013; Hardman et al., 2012). Analysis suggests that this orientation toward learning is reinforced through its interaction with teacher accountability mechanisms. Importantly, it is progress against syllabus coverage, rather than student socio-emotional wellbeing or the academic progress of students, that is identified by school inspectors, academic masters, and teachers as the primary metric for success. As was noted in sub-section 6.3.2 this tendency is evident in the observed trend among participating teachers to steer discourse toward a predetermined instructional path, frequently resulting in missed opportunities to build upon or clarify the thought processes evident within student responses. As one teacher noted when probed about meeting the needs of all learners:

Teacher: We use syllabus to teach students and if you go outside syllabus and inspectors come here and they say the things you taught are out of the syllabus and not valued so you get the case and you must explain why you do things not valued. You must teach in accordance with syllabus. [FG_NM][42]

Analysis of teacher followup moves, as well more general reflections about the process of teaching and learning, suggests that teachers are heavily influenced by the intense pressure they feel to complete the syllabus. This steadfast focus on adherence to the syllabus and, by extension, the presentation of 'correct' knowledge, often contributes to the limited uptake of, and adaptation to, those student-generated ideas that are vital to student well-being and access to the curriculum. This was demonstrated in the analysis of extract 6.8 in which Mr. Emmanuel did not respond flexibly when students displayed confusion about the difference

---

[42] This comment was made in the context of a discussion about the statement 'I would feel personally responsible if a student of mine had very low achievement. More specifically, it was made in response to a probe from the researcher in which the researcher asked 'it is your responsibility to teach the syllabus or to teach the students?'

between present simple and present continuous tense. Addressing this confusion would have been more consistent with research on how students best learn the target concept (Larsen-Freeman, Kuehn, & Haccius, 2002).

While incorporating instruction that is contingent upon the ideas evident within student contributions is fundamental to processes of inclusion, potential tensions between student and curriculum cannot be ignored. Such tension is no more evident than when considering classroom context and objectives in light of Piaget's statement: 'If you follow the child wherever his answers lead spontaneously, instead of guiding him with preplanned questions, you can find out something new' (Bringuier, 1980, p. 24 as cited in Pierson, 2008). Given the demands of the typical classroom, which include high student to teacher ratios, overly ambitious curricular requirements, and high stakes testing, it is not possible nor desirable to flexibly shift on the basis of all student contributions in perpetuity. However, as is indicated in Dewey's account of education (1998), teachers' role in shaping the student experience relies on the capacity to judge which student-generated ideas and ways of thinking require additional time and development, which do not, and to achieve a reasonable balance. Analysis suggests that teachers often miss critical opportunities to address relevant errors in student reasoning or to clarify or develop student generated ideas in ways that would benefit processes of individual and whole class inclusion. That is, analysis suggests that teacher's often lack the capacity to judge which student-generated ideas and ways of thinking require additional time and development and which do not. One notable difference in teacher followup in sub-section 6.3.4 lies in the fact that teachers demonstrate knowledge of the conceptions their students are demonstrating, and how to address them. Mr. Norbert in particular, in his interaction with Gurumbu, demonstrates his capacity to make use of the conceptual relationships underpinning the student's misunderstanding, leveraging processes of epistemic ascent (Winch, 2017) detailed in Chapter 5. It is this teacher know-how that contributes to a teacher's capacity to achieve higher degrees of responsiveness in ways that are conducive to classroom context.

Analysis has highlighted how concerns about curricular coverage co-exist alongside the need to maximize the rate of participation. Teachers have a tendency to ascribe great importance to the creation of highly interactive lessons. They often refer to the importance of ensuring that students are 'kept active' [020203B] and 'participate well in question and answer discussion' [010102], identifying this interactivity as a mechanism for ensuring students are not 'spoon

fed (content)' [FG_Mkata].[43] As has been demonstrated, there is a common tendency to pursue optimal efficiency in terms of the maximisation of opportunities for student contributions, creating space for student voices to be heard by limiting the amount of influence a given student response can have on ongoing discourse. In this way, despite achieving higher levels of interactivity, the discourse is characterised as fundamentally authoritative, creating little space for students to actively co-construct knowledge or integrate their ideas into classroom discourse.

This trend reflects what Barlett and Vavrus (2013) refer to as contingent pedagogy whereby, as was discussed in Chapter 2, teachers adapt certain aspects of learner-centred pedagogy (LCP) without internalizing its underlying tenets. It is hypothesised herein that this plays a moderating role in the relationship between teacher capacity to maximise the rate of participation and teacher capacity to engage in responsive instruction. Notably, in instances in which the underlying tenets of LCP are taken-up, such as in the case in Extract 6.3, higher degrees of responsiveness appear more possible. In the interaction included in Extract 6.3, Mr. Joseph demonstrates value for the way in which his student was constructing his own understanding of the target concept, and he incorporated the student's thinking when formulating his followup. Such deviant cases illustrate how changes in the causal mechanism (i.e. the uptake of LCP) can generate a different pattern of behaviour, one that is more responsive to the prior student contribution.

While extending beyond the scope of this study, analysis indicated that the process of code-switching, or shifting between students' mother tongue (Kiswahili) and the medium of instruction (English) often enables teachers to diminish distance between themselves and their learners, thereby supporting the development of a more trusting and supportive learning environment. As noted within Chapter 2, this aspect of instruction has attracted substantial attention within the education research community in Tanzania and other sub-Saharan contexts, and was therefore not included as a focal component of this study (e.g. Adendorff, 1993; Binding, 2003; Merritt, Cleghorn, Abagi, & Bunyi, 1992).

---

[43] To justify why he feels teachers cannot have a powerful influence on students, one teacher explained: Can I take time to remind you we are forbidden from teaching in spoon feeding. They have to read, they have to study. They are the ones who sit for the national exam. We are not supposed to give them each and everything. You do not do the action in the class. They are the ones to do. (FG_Mkata)

While not frequently observed in the lessons included in this study, teachers did engage in acts deemed counter-supportive, including the use of corporal punishment and humiliation tactics. Extant research clearly indicates that the use of demoralizing comments such as 'Are you stupid?', or attempts at accentuating social comparisons in order to make individuals or segments of the class feel shame as was noted in Chapter 4, undermine the creation of a climate of trust and comfort essential if processes of educational inclusion are to take place and be effective. The limited amount of data gathered on these practices and teacher perceptions of them indicates that it is precisely this eroding of comfort and trust that teachers are seeking to achieve with such derogatory comments. One teacher noted: 'It is your responsibility. Punishment is not a sign of not caring. Punishment is caring. It helps to make those students to work hard, motivating lazy ones, and correcting misbehaviours' [FG_Mkata]. Teacher reflections suggest that there is a belief that feelings of shame or physical or emotional discomfort serve to motivate rather than hinder student participation and achievement. In this way, certain behaviours, including corporal punishment and public shaming, are interpreted by the teachers themselves to reflect a sense of responsiveness to students' socio-emotional needs rather than reflecting a form of abuse. Because this was not a focal aspect of data collection, the methods utilised do not allow for any substantial conclusions to be drawn. This therefore reflects an important pathway for future research.

The above discussion has explored several causal mechanisms (CR ontology) shaping teacher capacity and influencing processes of educational inclusion. As behaviorist orientations combine with a syllabus-driven metric for teacher success, an emphasis on interaction as a physical action rather than an ideational and co-constructive force, and limitations in teacher know-how, teacher responsiveness becomes fundamentally constrained. As a result of these orientations and norms interacting within the realm of the real, the classroom agenda emerges as primarily a teaching agenda and not a learning agenda, and many opportunities for responsive instruction supporting processes of educational inclusion are obscured. This chapter has also illustrated two important deviant cases in which teachers are able to engage in responsive adaptation, supporting processes of educational inclusion without forgoing other objectives. These interactions highlight how minor shifts in orientation and teacher know-how in particular change the influence of the other causal mechanisms at play. A summary of these dynamics can be viewed in Figure 6.6 below.
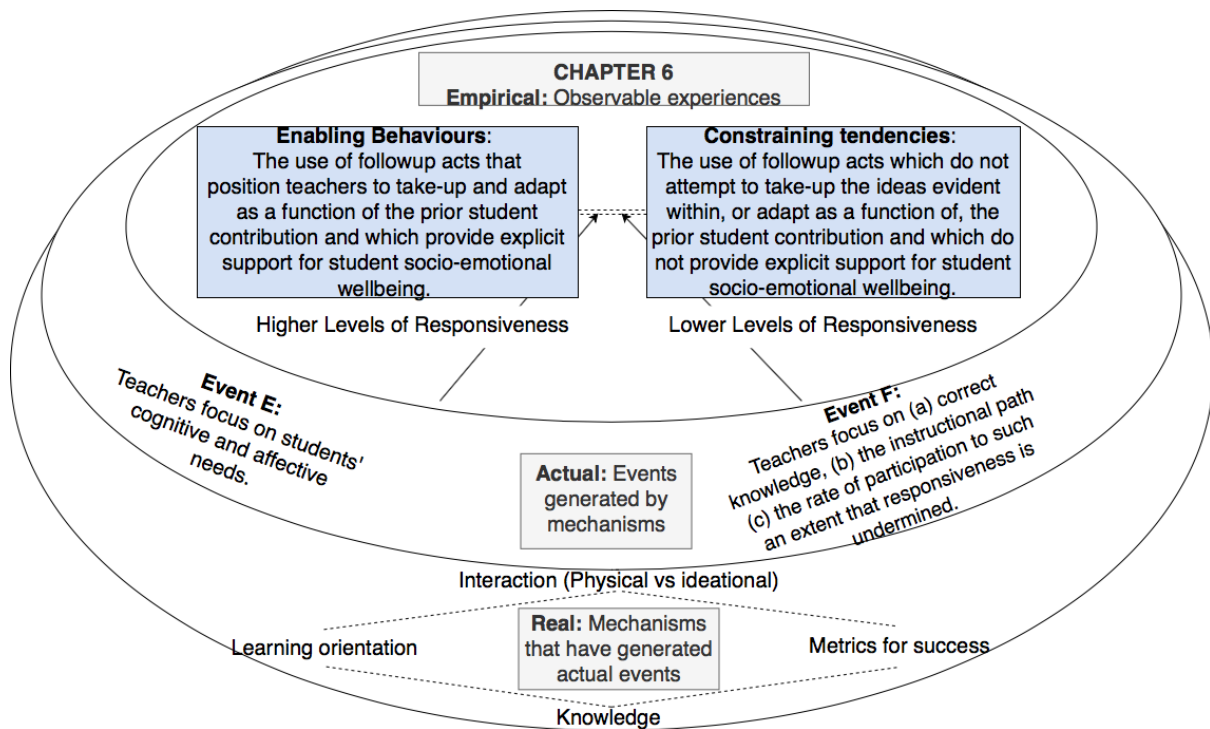
Figure 6.6 *The Nature of teacher responsiveness*

The final discussion chapter introduces a framework for considering how these various elements of teacher-student interactions presented in Chapter 4, 5, and 6 interact to influence processes of educational inclusion in practice.

Chapter 7. Final Discussion

<div style="text-align: center">

Sometimes, the most helpful thing research can offer
is thoughtful exploration of complexity.
(Florio-Ruane, 2002, p. 207)

</div>

This thesis began with an appreciation for, and excitement about, a rapidly changing education landscape characterized by a great expansion in education service delivery in communities and countries around the globe. As noted within the introduction, while access to secondary school was once an opportunity reserved for a privileged few, it is increasingly becoming available to a larger and more heterogenous population of learners. This thesis was also embarked upon with recognition that while more children and adolescents are in school today than ever before, large segments of the student population are not learning. Educational inequalities are widening as children, parents, and teachers face an uphill battle in ensuring that students in disadvantaged and marginalized contexts gain access to the support they need in order to thrive. It was designed with an awareness that attempts to address issues of quality and inequity are not yielding the intended results, and that new and contextualized approaches are needed if the vision underpinning the Sustainable Development Goals (SDGs) is to be brought to fruition within and across the classrooms of the world.

In order to ensure that opportunities inherent within the global rise of educational access are actualised, education systems worldwide must work to ensure equitable and inclusive provision at scale, and teachers must be prepared to engage in instruction that is supportive of, and responsive to, an increasingly diverse population of learners. Comprehensive research is required in order to establish a holistic understanding of the challenges and opportunities which emerge when working to ensure that a diversity of student needs can be accommodated in the classroom, particularly in low-resource contexts in the global South whereby the majority are excluded. Yet, as noted by Srivastava, de Boer, and Pijl (2015), there is a paucity of research investigating the role of teachers in educational inclusion in these contexts. This dissertation was planned to fill palpable gaps in the literature by investigating the limitations and creative solutions evident within existing pedagogical practices. It has been framed with the goal of revealing both barriers and opportunities for increased inclusion as they unfold within typical secondary school classrooms in Tanzania.

In concluding this dissertation, the following section presents a framework synthesizing and explaining the various moments which occur within the span of a teacher-student interaction and which have been identified as important levers influencing processes of inclusion during teaching and learning. The creation of this framework has been premised upon the need to ground questions of best practice in existing teacher practice. In addition to serving as a medium for the presentation of a synthesis of findings, the framework demonstrates the benefits of the application of Critical Realism in revealing the layered reality within which processes of educational inclusion emerge. The section thereafter considers some of the learnings generated through the research process as a whole, highlighting two core issues which are reflective not only of my own learning journey, but of my contribution to knowledge development. The final section presents a precise account of the substantive and methodological contributions of this research and links these to several avenues for building upon the findings presented.

7.1 Inclusion in practice: An explanatory Framework

As established in the review of literature in Chapter 2, there is a growing body of evidence demonstrating how dialogic interactions between teacher(s) and students during whole class instruction contribute to the development of a rich learning environment, enabling teachers to create meaningful learning opportunities for all. However, research emerging from Tanzania, and similarly low-resource contexts in the global South, indicates that much of the instruction is essentially a transmission-based approach to teaching and learning enacted through what is typically characterised as rigid and teacher-centric instruction (Akyeampong et al., 2013; Hardman & Dachi, 2012b). In these more didactic discursive environments, what inclusive practice actually looks like, and how it functions, has remained elusive.

This research has demonstrated how an I-R-F discursive pattern associated with typical authoritative instruction can support or hinder inclusive goals. Through a consideration of teachers' turn allocation strategies, questioning strategies, and the ways in which teachers react to student responses, this research has provided a thick descriptive analysis of the ways in which more authoritative forms of discourse shape teacher capacity to foster social and academic inclusion and exclusion. As a result, it has revealed how teachers can position themselves to better foster processes of educational inclusion even when embedded within more traditional and authoritative discursive structures. By way of review, the research questions guiding the analysis included:

1. What recurrent patterns of behaviour (demi-regularities), and deviations therein, can be identified within the ways in which teachers distribute opportunities for student-generated talk during interactive whole class instruction? What are the implications of these patterns in terms of teacher capacity to foster inclusive patterns of participation? What does an analysis of these patterns, and deviations therein, reveal in terms of the generative mechanisms underpinning them?

2. What evidence of student participation and learning are teachers able to draw out through their questioning practices? Under what conditions do teacher-posed questions influence teacher capacity to foster processes of educational inclusion? Why?

3. What recurrent patterns of behaviour can be identified within the ways in which teachers respond to students' contributions? What are the implications of these patterns in terms of how teachers are attending and responding to cognitive and affective dimensions of student learning? What pedagogic and/or social purposes can be identified in patterns of behaviour defined by lower or moderate levels of teacher responsiveness?

Guided by the overarching research objective of unravelling the pedagogical factors shaping how teachers are enabled or constrained in processes of educational inclusion, these questions have supported the construction of an explanatory framework. One purpose of the explanatory framework is to ensure that this study focuses on learning from, rather than merely learning about, the practices of teachers in Tanzania. The framework explicates how teachers are enabled or constrained given their observed discursive practices and deviations therein. More specifically, it reveals the power of and mechanisms underpinning three core moments which occur during any given teacher-student interaction and which have implications for teacher capacity to enact processes of educational inclusion. The resulting framework can be viewed in Figure 7.1.

Within Figure 7.1, each of the three concentric circles incorporates the main findings highlighted within each of the findings chapters respectively. The content of each set of concentric circles aligns with the three relatively autonomous levels of reality identified in CR. As noted within Chapter 3, Critical Realists interpret causation by differentiating between the empirical, the actual, and the real. The innermost circle reflects the layer of the empirical, encapsulating the observed behaviours, both demi-regularities and deviations therein, identified through processes of qualitative data coding and basic analysis. The second circle reflects the layer of the actual, the events and objects which have been made observable through the analytical process, and which impact the empirical and are generated by the real. Finally, the outermost circles reflect the non-observable realm of the real, the causal mechanisms which generate the actual and empirical.

CHAPTER 4
Empirical: Observable experiences

Enabling Behaviours: The use of turn allocation procedures characterized as proactive and/or persistent.

Constraining Tendencies: The tendency to use of turn allocation procedures characterized as reactive and/or permissive.

Higher Levels of Inclusivity

Lower Levels of Inclusivity

Event A: Teachers engage with, and safeguard the allocation of turns to, a diverse set of students

Event B: Teachers rely on a subset of students to take turns at talk, resulting in a diminishment of student voices heard.

Actual: Events generated by mechanisms

Outcome Expectancy

Real: Mechanisms that have generated actual events

Self-Efficacy

Sense of Personal Responsibility

CHAPTER 5
Empirical: Observable experiences

Enabling Behaviours: The capacity to draw out and recognize evidence of student participation, learning, and interactional competencies respectively.

Constraining Tendencies: The tendency to draw out evidence of student participation, learning, and interactional competencies that do not align to that which is recognized.

Higher Levels of Inclusivity

Lower Levels of Inclusivity

Event C: Teachers formulate appropriate interpretations of student participation and learning.

Event D: Teachers formulate distorted interpretation of student participation and learning.

Actual: Events generated by mechanisms

Subject area knowledge

Real: Mechanisms that have generated actual events

Knowledge of students

Interactional knowledge

CHAPTER 6
Empirical: Observable experiences

Enabling Behaviours: The use of followup acts that position teachers to take-up and adapt as a function of the prior student contribution and which provide explicit support for student socio-emotional wellbeing.

Constraining Tendencies: The use of followup acts which do not attempt to take-up the ideas evident within, or adapt as a function of, the prior student contribution and which do not provide explicit support for student socio-emotional wellbeing.

Higher Levels of Inclusivity

Lower Levels of Inclusivity

Event E: Teachers are supportive of, and responsive to, students' cognitive and affective needs.

Event F: Teachers focus on (a) correct knowledge, (b) the instructional path (c) the rate of participation to such an extent that responsiveness is undermined.

Actual: Events generated by mechanisms

Interaction (physical vs ideational)

Learning orientation

Real: Mechanisms that have generated actual events
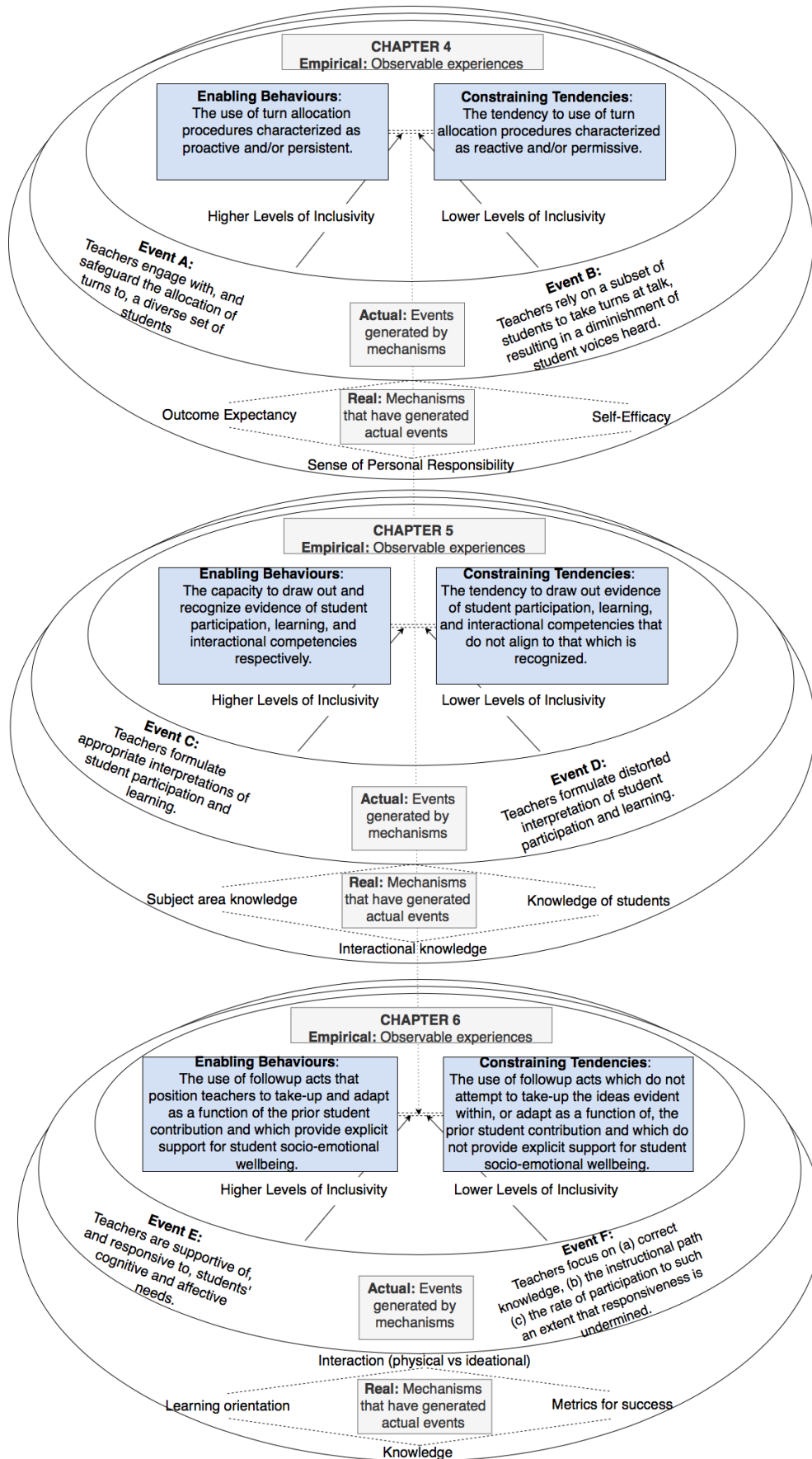
Metrics for success

Knowledge

Figure 7.1 Inclusion in practice: An explanatory framework

Within each of the innermost circles (the empirical), the parallel line connecting enabling behaviours with constraining tendencies is indicative of opposing classroom-based teacher practices. The lines are dashed in recognition that it is possible to engage in classroom practice falls somewhere between the two extremes. This indicates a continuum-like conceptualization rather than a binary one.

The two solid unidirectional arrows emerging from the realm of the actual indicate how these practices are emergent from, and aligned with, certain salient events. Whereas events A, C, and E advance goals generally characterised as inclusive, B, D, and F are indicative of processes contributing to higher levels of exclusion. The arrows end within the parallel lines rather than from one of the two extremes, again drawing attention to the hypothesis that teacher practice lies along a continuum. While certain behaviours support processes of inclusivity more than others, there are not necessarily clear boundaries between those practices supporting processes of educational inclusion and those which do not. For instance, as was detailed in Chapter 6, while incorporating instruction that is contingent upon the ideas evident within students' contributions is fundamental to processes of inclusion, it is not possible nor desirable to flexibly shift on the basis of all students' contributions in perpetuity. There are instances during instruction whereby prioritizing the presentation of canonical knowledge or the maintenance of the pre-planned instructional path also serve to support processes of educational inclusion, safeguarding students' access to the curriculum. Prioritizing the maximization of the rate of participation at times is necessary to ensure students' voices are heard and acknowledged, though can negatively impact a teacher's capacity to engage in responsive adaptation at a particular moment in time.

Analysis of classroom discourse has shed light on not only observed practices, but the beliefs, sociocultural norms, and experiences underpinning them. These findings are contained within the outermost circle of each of the sets of concentric circles in Figure 7.1. While the in-depth focus on classroom discourse has the potential to isolate classroom-level happenings from the wider contexts within which they occur, the application of the CR ensures such a focus can serve as a practical microcosm, enabling the establishment of a nuanced and grounded understanding of the larger social contexts within which it functions (Erickson, 2004 as cited by Pierson, 2008). Notably, the same empirical regularities and continuums of teacher practice may be observed in other contexts; however, the generative mechanisms underpinning them may vary. As noted in Chapter 3, the relationship between these

underlying mechanisms, and the phenomena they generate, is by no means direct, linear or causal; rather, it is how they interact with one another that contributes to the emergence of the actual and empirical. This highlights an assumption underpinning this research design – that attempts to identify and understand causal mechanisms remain tentative. However, the tentative nature of CR does not undermine its value. Rather, it is this aspect of it, what is often referred to as the process of philosophical underlabouring, that underpins the value of CR in the social sciences (Sims-Schouten et al., 2007).

Each of the findings chapters has supported the identification of specific continuums of teacher practice emergent from different sets of causal mechanisms. Whereas the analytical process and supporting data related to teacher turn allocation procedures (Chapter 4) led to the identification of several beliefs underpinning teacher practice, the empirical findings related to teacher questioning practices (Chapter 5) led to an exploration of the role of teacher knowledge. The exploration of teacher followup moves (Chapter 6) adds an additional consideration of particular socio-cultural and institutional norms. Analysis indicates that these meso and macro level mechanisms were relatively universal to all teachers (see Chapter 3.7.4 for additional information about the different types of mechanisms). Where teachers differed substantially was in their personal beliefs and their display of different types of knowledge, as detailed in Chapters 4 and 5 respectively. This finding attributes agency to the teachers themselves. It indicates that, whereas factors related to socio-cultural and institutional norms and do shape what is possible in the classroom, these factors unto themselves do not define teachers' capacity to enact processes of inclusion. While an in-depth exploration of the relationship between structure and agency extends beyond the scope of this dissertation, the findings presented herein indicate that micro-level factors (teachers' professional and tacit knowledge and skill and their attitudes about themselves as teachers) have the potential to shape teachers' pedagogical practices and thereby influence processes of classroom-based inclusion. Notably, the continuum-based approach detailed above is also supported by evidence that individual teachers draw upon more than one form of discourse, suggesting teacher practices can be defined not only as a function of personal factors, but as a function if situational variation.

The dotted line stretching across the three sets of discursive practices in Figure 7.1 indicates an indirect relationship whereby each set of practices has the potential to influence the efficacy of, but does not prescribe, the practices and inclusionary outcomes of the next set.

For instance, the use of enabling behaviours, including the use of allocation procedures characterised as proactive and persistent, helps to ensure that a teacher is enabled to engage with, and safeguard the allocation of turns to, a diverse set of students, including those liable to become excluded. The resulting diversity of students' voices heard bolsters the likelihood that, in posing questions and interpreting the nature of students' learning, teachers are positioned to generate insight into the diversity of ideas and (mis)understandings that span the class population. While, by only engaging with a subset of students, it remains possible that a teacher can formulate appropriate interpretations of student participation and learning, such interpretations are not informed by the heterogeneity of learners and their diverse and multifaceted learning needs. That is, because of the use of more reactive or permissive turn allocation procedures, which tie the distribution of turns at talk to student initiative, individual differences between students are more likely to become suppressed. Any conclusions drawn therefore reflect a tendency toward overgeneralization, with the potential to leave teachers with an inaccurate sense of the effectiveness of the lesson for nonparticipating students. This illustrates how prior actions influence the efficacy of the next set of discursive strategies. Yet, the questions posed may still tap into relevant types of knowledge, enabling teachers to recognize important aspects of student participation and/or learning for those who do speak, and therefore, the benefits of the questions that teachers ask are not entirely diminished through the distribution of turns. Together, these components of the framework shed light on the several key moments, levers for change within teacher practice which have the potential to support teachers' capacity to enact processes of educational inclusion in the classroom.

The analysis presented herein has indicated that it is possible to achieve higher levels of inclusivity while simultaneously respecting and working with the ways in which teachers currently approach the process of teaching and learning. That is, the analysis has demonstrated that it is possible to introduce effective practices based on current teacher-centric instructional techniques and I-R-F patterns of discourse. It creates space to address inclusivity within the classroom, respecting how teachers currently approach the teaching process, and how they can enhance their existing practices in the future. Several effective practices have been described in detail within each of the findings chapters respectively, from recognizing benefits and limitations of certain turn allocation procedures through the lens of inclusion, to grappling with the nature of teachers' followup moves. The implications of these findings are further examined within Section 7.3.

7.2 The Learning Journey: Reflections on the research process

Several aspects of my learning journey were highlighted within Chapter 3, Methodology. Herein, I highlight two additional aspects of the research process that have been particularly salient during data collection and analysis. The first explores the relationship between engaging in research in a sub-Saharan context and the application of theories of teaching and learning borne out of the work of scholars and educationalists in non-African contexts. The second considers the process of confronting the ethics of corporal punishment. It considers the dilemma of inaction against the negative outcome of immediate reaction. The final sub-section presents several pathways for future research.

7.2.1 A Northern lens on a Southern context: A perpetual elephant

This research has been influenced by the need to unpack and scrutinize the common narrative used in depicting the nature of teaching and learning in Tanzania. To a very real extent, research designs applied across the social sciences in general, and in the field of international education in particular, reflect the pitfalls of Northern dominated discourse when transferred to the global South. Given the limited role of low-income country (LIC) governments in formulating the international education agenda, King (2007) and Tikly (2016) question the extent to which the agenda can be meaningfully appropriated by LICs. Connel (2007), in her analysis of the development of social sciences across time, notes the tendency to treat practices and beliefs maintained by populations characterised as 'periphery' as exhibits in what is effectively a museum of subordinates. As noted by Tao (2013), so much of the research emerging from international development and academic institutions produces what appears to be a single story of teaching and learning in LICs. In Tanzania, this story is most typically encapsulated by an oversimplified conceptualization of pedagogy as teacher-centric. There is a tendency to then vilify and contrast this form of instruction with more learner-centric approaches formulated in, and exported from, non-African contexts (Barrett, 2007). Connel (2007) highlights how the failure to recognise global divisions and the contributions and dynamism of Southern perspectives contributes to a 'false sense of universality.' This does not necessarily reflect a failure to recognize the predominance of Northern theory applied in Southern contexts, but a tendency to, as a function of the nature of the production and circulation of knowledge, reproduce it.

The research presented herein has been informed by several theories and specific constructs borne out of the work of scholars and educationalists in non-African contexts. The limitations of this approach are evident in the description of the challenges encountered during the analysis of teachers' questions presented in Chapter 5, and attempts to attribute pedagogical value to the followup moves detailed in Chapter 6. In both instances, challenges during the analytical process emerged, in part, as a function of my attempts to apply a foreign lens in order to draw out meaning in my observations of teachers' practices. The dilemma ultimately led to the use of a mainly inductive and exploratory approach to qualitative data analysis, temporarily disregarding extant theory in order to "see" what the data actually revealed (Creswell, 2013). Through this process, I became more acutely aware of the influence of my background knowledge, and the tendency to apply theories from the global North, without adequately considering the implications of such transfers. To actively counter this tendency, I have worked to maintain a reflexive awareness of, and respect for, participant agency and notions of positionality.

Throughout the research process, I have maintained an awareness of myself as a social entity embedded within, and influenced by, broader paradigms, social structures, and discourses. The process has demonstrated the importance of making explicit what Gergen and Gergen (2000) refer to as a researcher's historical and geographical situatedness, personal investment in the research, biases, surprises, and preferences, which have the potential to influence the data collection and analytical process. To support this awareness, I have leveraged the use of detailed analytical notes in order to reflect upon the research process. This provided a space for me to continuously question the nature of emergent hypotheses, to make explicit the assumptions and biases underpinning my interpretation, and to engage in continuous thought experiments in order to consider alternative perspectives and possibilities. Importantly, this research reflects a focus on learning from, rather than learning about, predominant practices in Tanzania. In line with this objective, I have focused on the need to build a model reflecting the experiences, beliefs, and practices of the research participants themselves and not of one reflecting my own expectations.

Finally, while several constructs emanating from the global North were applied in order to interpret the findings, these constructs were utilised flexibly. This research employed a qualitative design, enabling the development of a holistic and contextualized hypothesis regarding the factors influencing teacher capacity. The use of qualitative methods allowed for

a move away from a priori variables and hypothesized relationships derived from scholars in the global North, supporting the creation of a research-based and contextualised foundation for the future application of more quantiative methods. In accordance with the CR methodology, the research is theory-driven; however, theory is conceptualised as fallible. As has been described in Chapter 3, and alluded to throughout each findings chapter, theories were changed, altered and supplemented as a function of the nature of the findings themselves. It is through this adaptability that I was able to mitigate the likelihood of forcing the application of maladaptive theories and constructs onto the research findings. As a result of this process, the relevance of several constructs, including notions of personal responsibility, outcome expectancy, self-efficacy, and particular domains of teacher knowledge, have been established as relevant within the Tanzanian context. This is further examined within the final sub-section, which presents several pathways for continued research.

7.2.2 Corporal punishment and the dilemma of inaction

While preparing for field research, I was aware of the prevalence of corporal punishment in Tanzanian schools. Given that the quality of my research was fully reliant on the willingness of teachers to participate and engage in honest reflective dialogues about their practices, I chose not to engage teachers in discussions about the practice of corporal punishment unless they approached the subject first (see exception, Section 3.8.1 and the introduction of positive discipline techniques). Such a choice raises important ethical concerns about the dilemma of inaction.

There is no doubt that, had I addressed the use of corporal punishment, such action would have carried with it the potential for negative outcomes. Having attempted to address such practices in my past work in Tanzanian secondary schools, first as teacher and co-worker, and then as an education consultant and teacher tutor with Save the Children Tanzania, I was aware that the practice is steeped in cultural conflict and that change is not something that can be initiated by an outsider. I was cognisant of the negative politics surrounding the practice, and the defensiveness that teachers and school leadership can feel when the use of corporal punishment is questioned. In addition, I was aware that the issue extended beyond the scope of my study. It is these considerations that ultimately led me down a path of inaction.

In terms of its impact on the quality of research, during analysis, I became acutely aware of the impact of corporal punishment practices on my orientation toward several of the teacher participants. While reviewing audio-based interview data, it became apparent that my capacity to reflexively deliberate was often constrained, particularly during interviews that took place after observing specific incidents of abuse. In these situations, my intonation in interviews suggests that I attempted to create distance between myself and the teacher. This invariably resulted in less meaningful or substantive teacher reflections.

Education researchers take on a precarious role in the schools within which they work. With the exception of particular research designs, such as those aligned with the tenets underpinning action research, researchers typically take on the role of 'outsider', with inherent and expected limitations in terms of a researcher's capacity to affect change during the research process. The dilemma raised within this sub-section reflects a real and ongoing challenge both for me and for the wider international education and development community: How do we address such culturally loaded ethical issues, particularly when these are not the focal point of engagement, or when the possibility for action oversteps our role as passive observer? This opens up one pathway for future research. Additional pathways more directly linked to the focus of my research are detailed in the final sub-section.

7.3 Contributions and directions for future research

This thesis began with a detailed account of both the education landscape in Tanzania and the current state of research investigating processes of educational inclusion and inclusive pedagogy worldwide. Based on the review of research presented within Chapter 2, it was argued that many of the ideals underpinning the notion of inclusive pedagogy have emerged from idealised and distinctly Western notions of teaching and learning. Yet, in order to prepare teachers to act as agents of inclusion, we must first establish a comprehensive understanding of existing teachers' practices and potential levers for change, particularly in under-researched contexts across the global South.

This research establishes an explanatory framework for how processes of inclusion and exclusion unfold within Tanzanian Ordinary Level secondary school classrooms as a function of the patterns of behaviour and generative mechanisms underpinning teachers' observed practices. It is premised on the need to expand our knowledge of what inclusive education

can mean in classrooms typically characterized by material and human deprivation and in teaching approaches most often defined by a strong pedagogic tradition of knowledge transmission. The findings are significant for expanding our understanding of the nature of teacher pedagogy as it relates to processes of educational inclusion in Tanzanian classrooms, generating insight into that which teachers do, the reasons for why they do it, and the contextually relevant levers for change.

The majority of research within this field tends to be situated within classroom contexts which are avowedly inclusive, resulting in the accumulation of a research base focused around idealised portrayals of the individual teacher. The research presented herein is based on data generated within relatively typical Tanzanian community schools, thereby analysing questions of inclusion and equity from the vantage point of the ordinary. This focus ensures that the descriptive analysis of pedagogical inclusion presented herein is based on specific and contextualised practices rather than individual teacher mastery. It contributes to the construction of a practice-oriented and heterogeneous research base within the field of educational inclusion, paving the way for future investigations to be informed by the diversity of empirical research necessary to make comparisons and to build research-based links between teacher pedagogy and student inclusion.

The findings establish a nuanced picture of classroom interaction, expanding upon extant research within the Tanzanian context which has tended to focus on the limitations of a teacher-dominated and authoritative discourse and the ways in which it fosters recitation and memorization. While this is not necessarily an inaccurate portrayal, the tendency toward oversimplified conceptualizations of teaching in Tanzania and other low-income contexts has resulted in an incomplete account of what occurs within the classroom walls, making it difficult to envisage realistic pathways toward pedagogical change. Through an in-depth descriptive analysis of teacher discourse, this research moves beyond generic and value-laden characterizations of teaching in Tanzania and similarly under-resourced contexts, identifying common practices and deviations therein that are consequential for processes of educational inclusion. It extends the exploration of authoritative discourse put forward by Scott, et. al. (2006), demonstrating the way in which the value and influence of teacher discourse can shift even when embedded within a fundamentally authoritative communicative approach.

Analysis reveals the relevance of three discrete moments embedded within each teacher-student interaction with the potential to either support or hinder processes of educational inclusion. These include:

- The moment within which a turn is allocated (Chapter 4),
- The moment within which a student response is interpreted by a teacher (Chapter 5),
- The moment within which a teacher then follows up (Chapter 6).

By illuminating these three moments, the analysis builds upon the suggestion put forward by Jha (2002) that greater inclusivity can exist even when bounded by a more authoritative style of instruction.

To establish a nuanced picture of what happens in the classroom, the analytical process resulted in the creation of novel and contextualised coding schemes investigating teacher initiating and followup moves. The schemes respond to the need for tools sensitive enough to systematically analyse dialogue in a classroom context characterised by an authoritative style of discourse and I-R-F based participation structure, while codifying acts that contribute to or obstruct processes of educational inclusion. They complement and build upon the work completed at the University of Cambridge Faculty of Education related to the Scheme for Educational Dialogue Analysis (SEDA), acting as a sub-scheme honing in on the particularities of teacher-student interaction relevant to the Tanzanian context. The schemes offer opportunities to measure the nature of teacher-student interaction and changes therein, and can be adapted for use by other researchers or teachers seeking to better understand or develop more effective styles of interaction with their students so as to foster greater inclusivity in their everyday practices. In addition, they can be used to better track the impact of particular discursive practices on students' learning and participation, drawing clearer links between teacher practice and processes of educational inclusion.

The findings presented within this thesis expand our understanding of how meaningful change can be achieved in teacher practice. They reveal the power of the multiple continua within which teachers move during classroom interaction, highlighting the specific decisions and respective trade-offs which influence teacher capacity to foster processes of educational inclusion during teaching and learning. By making these three continua of practice visible, the findings bring to light how minor shifts in teacher practice can lead to more substantial changes in educational inclusion within the classroom. Considering variability within an

individual teacher's practices creates an opportunity to consider how educational inclusion as a process can maintain multiple, and potentially conflicting priorities. For example, being able to ensure participation by all students is often in conflict with being able to be responsive to and incorporate an individual student contribution. Applying this pluralistic perspective creates space to think of teacher practice in a dynamic frame in which individual teachers are able to shift along a continuum from more to less inclusive within a single teacher-student interaction. This view of inclusion is premised upon its situated and complex nature, without which, notions of diversity could not be truly respected.

Through the application of the CR approach, this dissertation has brought together research examining teacher knowledge and learning, cognitive theories of motivation, and research examining inclusion as a pedagogy, merging three typically separate lines of inquiry. Rather than emphasizing structural components of teacher lives, which highlight the limited capacity of teachers in terms of individual change, the findings emphasize the immense power of individual agency. By linking specific classroom practices with possible causes at the personal level, this research formulates a picture not just of extant teacher practice, but of types of knowledge and beliefs that would need to be targeted in order to effectively advance goals of greater inclusivity. The findings demonstrate how the combined power of specific types of knowledge and beliefs shape teacher capacity to implement processes of educational inclusion during teaching and learning.

The findings underscore the importance of dovetailing professional development opportunities that address tangible and specific teaching practices with those that address less visible domains of teacher knowledge, beliefs, and attitudes. Aligning with the components of teacher change described within Guskey (1986) and Clarke and Hollingsworth's (2002) respective models of teacher learning, the findings suggest that to support expanded inclusivity within the classroom, teacher professional development programming must attend to multiple aspects of teacher lives, including their feelings of outcome expectancy, sense of personal responsibility, self-efficacy, and various domains of knowledge. The findings suggest how changes in teacher beliefs and attitudes can be supported by drawing attention toward, and inviting teachers to experiment with, the empirical continuums visible to teachers and researchers (i.e. the use of turn allocation procedures, the interpretation of student contributions, and the use of particular follow-up moves). The findings also reaffirm the

importance of teachers' content-based knowledge in the pursuit of educational inclusion as has been emphasised within extant research. Knowledge is confirmed as an essential component of teacher capacity to accurately interpret student responses and to judge when and how to build upon student-generated ideas.

There is a general consensus among researchers in the field of inclusive education that inclusion cannot be directly observed through discrete incidents. Instead, it requires reflection upon the cumulative and contextualized influence of teacher practices (Florian & Black-Hawkins, 2011; Haug, 2010; Jha, 2007). This perception has likely contributed to the paucity of observation data in research investigating educational inclusion, forcing researchers to rely upon second-hand reports which do not fully account for what teachers actually do within the classroom. The research presented herein has demonstrated how the use of rich, detailed, low inference descriptions of classroom dynamics can help to circumvent potential limitations in empirical observation. As a result, it has become possible to isolate several specific and locally relevant practices that have the potential to support teacher capacity to foster inclusion. The research herein allows for an initial consideration of what inclusive education could mean given the current practices of teachers in a Southern context. It allows for a process of contextualization, without which, the discourse of the global education agenda may never transition from the realm of international ideal to the lived realities of the classroom.

In order to build upon the findings presented, the particular patterns of behaviour identified need to be considered in light of the student experience, which may include student-generated reports of feelings of inclusivity as well as an analysis of students' learning outcomes. In particular, the use of a quantitative study may be beneficial in order to model and test the relationship between the patterns of discourse identified herein, and proxy measures of student inclusion. Similarly, there is a need for further systematic analysis of the relationship between observed teacher behaviours and the generative mechanisms identified. As noted in Section 7.2.1, because the theoretical tools and supporting instruments used to identify generative mechanisms were established for very different purposes – and in order to investigate the qualities of very different populations – further research is required in order to systematically assess the relationship between these constructs and observed teacher behaviours. Building upon the research in this way will enable a contextualised and more systematic assessment of the levers for both teacher change and teacher support, and the

practices that strengthen and suppress processes of educational inclusion in Tanzania as well as in other classrooms in similar contexts across the global South. In addition, there is a need to further explore the ways in which different casual mechanisms interact with one another to produce certain empirical realities. While the nature of these interactions has been touched upon, further systematic inquiry is required in order to better establish and support these preliminary findings, and to identify and explore the influence of additional mechanisms in shaping the emergence of the empirical.

There are a multitude of approaches to inclusive pedagogy endorsed around the world utilizing different means to achieve a shared end – equitable participation and learning for *all*. This research has sought to move beyond a consideration of the idealised and preferred pedagogies of the global North, generating evidence of how processes of inclusion and exclusion can be strengthened or suppressed given the existing practices of teachers in classrooms in Tanzania. It has built upon extant research investigating the nature of teacher pedagogy in Tanzania, seeking to transcend traditional characterizations of classroom practice in order to explore how, given their current practices, teachers can be further empowered to recognize, value, and respond to the learning needs of all students. Ultimately, this dissertation provides an important stepping stone for the creation of relevant tools which can be used to support teacher practice and to enhance processes of educational inclusion in the classroom.

References

Adendorff, R. (1993). Codeswitching amongst zulu-speaking teachers and their pupils: Its functions and implications for teacher education. *Language and Education*, *7*(3), 141–162. https://doi.org/10.1080/09500789309541356

Ainscow, M. (2001). Understanding the Development of Inclusive Schools Some notes and further reading. *Concejalía de Educación. Excmo. Ayuntamiento de Elche.*, 27.

Ainscow, M. (2012). Moving knowledge around: Strategies for fostering equity within educational systems. *Journal of Educational Change*, *13*(3), 289–310. https://doi.org/10.1007/s10833-012-9182-5

Ainscow, M., Booth, T., & Dyson, A. (2004). Understanding and developing inclusive practices in schools: A collaborative action research network. *International Journal of Inclusive Education*, *8*(2), 125–139. https://doi.org/10.1080/1360311032000158015

Ainscow, M., Dyson, A., & Booth, T. (2006). *Improving schools, developing inclusion*. London ; New York: Routledge.

Ainscow, M., Dyson, A., Goldrick, S., & West, M. (2012). Making schools effective for all: Rethinking the task. *School Leadership & Management*, *32*(3), 197–213. https://doi.org/10.1080/13632434.2012.669648

Akyeampong, K., Lussier, K., Pryor, J., & Westbrook, J. (2013). Improving teaching and learning of basic maths and reading in Africa: Does teacher preparation count? *International Journal of Educational Development*, *33*(3), 272–282. https://doi.org/10.1016/j.ijedudev.2012.09.006

Alexander, R. (2001). Border Crossings: Towards a comparative pedagogy. *Comparative Education*, *37*(4), 507–523. https://doi.org/10.1080/03050060120091292

Alexander, R. (2008). *Towards Dialogic Teaching: Rethinking Classroom Talk.* (4th ed.). Dialogos: York.

Armstrong, D., Armstrong, A. C., & Spandagou, I. (2011). Inclusion: By choice or by chance? *International Journal of Inclusive Education*, *15*(1), 29–39. https://doi.org/10.1080/13603116.2010.496192

Bailey, J. (1997). Australia: Inclusion through Categorization? In *From them to us: An international study inclusion in education*. Routledge.

Ball, D., Thames, M., & Phelps, G. (2008). Content Knowledge for Teaching: What Makes It Special? *Journal of Teacher Education*, *59*(5), 389–407. https://doi.org/10.1177/0022487108324554

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York: W.H. Freeman and Company.

Banerjee, A., Banerji, R., Berry, J., Duflo, E., Kannan, H., Mukherji, S., … Walton, M. (2016). *Mainstreaming an Effective Intervention: Evidence from Randomized Evaluations of "Teaching at the Right Level" in India*. Retrieved from National Bureau of Economic Research website: http://www.nber.org/papers/w22746

Barnhart, T., & van Es, E. (2015). Studying teacher noticing: Examining the relationship among pre-service science teachers' ability to attend, analyze and respond to student

thinking. *Teaching and Teacher Education*, *45*, 83–93. https://doi.org/10.1016/j.tate.2014.09.005

Baroody, A. J., Feil, Y., & Johnson, A. R. (2007). *An Alternative Reconceptualization of Procedural and Conceptual Knowledge*. 18.

Barrett, A. M. (2007). Beyond the polarization of pedagogy: Models of classroom practice in Tanzanian primary schools. *Comparative Education*, *43*(2), 273–294. https://doi.org/10.1080/03050060701362623

Barrett, A. M. (2008). Capturing the différance: Primary school teacher identity in Tanzania. *International Journal of Educational Development*, *28*(5), 496–507. https://doi.org/10.1016/j.ijedudev.2007.09.005

Bartlett, L., & Mogusu, E. (2013). Teachers' Understands and Implementation of Learner-Centred Pedagogy. In *Teaching in Tension: International pedagogies, national policies, and teachers' practices in Tanzania*. Sense Publishers.

Bartlett, L., & Vavrus, F. (2013). Testing and Teaching The Tanzanian National Exams and their Influence on Pedagogy. In *Teaching in Tension: Pittsburgh Studies in Comparative and International Education* (Vol. 1, pp. 93–113). Rotterdam: Sense Publishers.

Bartlett, L., & Vavrus, F. K. (2017). *Rethinking case study research: A comparative approach*. New York: Routledge, Taylor & Francis Group.

Barton, L., & Tomlinson, S. (1984). *Special Education and Social Interests*. London: Croom Helm.

Bedard, K., & Cho, I. (2010). Early gender test score gaps across OECD countries. *Economics of Education Review*, *29*(3), 348–363. https://doi.org/10.1016/j.econedurev.2009.10.015

Berg, B. (2004). *Qualitative Research Metods for Social Sciences* (5th ed.). New York: Pearson.

Bertocchi, G., & Guerzoni, A. (2012). Growth, history, or institutions: What explains state fragility in sub-Saharan Africa? *Journal of Peace Research*, *49*(6), 769–783. https://doi.org/10.1177/0022343312452420

Bešić, E., Paleczek, L., Krammer, M., & Gasteiger-Klicpera, B. (2017). Inclusive practices at the teacher and class level: The experts? view. *European Journal of Special Needs Education*, *32*(3), 329–345. https://doi.org/10.1080/08856257.2016.1240339

Bhaskar, R. (1998). *Critical Realism: Essential readings / edited by Margaret Archer*. Routledge.

Binding. (2003). *Code-switching strategies in science lessons in Kenyan primary schools: An analysis of their contributions to the meaning making process*.

Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2004). Working inside the Black Box: Assessment for Learning in the Classroom. *Phi Delta Kappan*, *86*(1), 8–21. https://doi.org/10.1177/003172170408600105

Blom, B., & Morén, S. (2010). Explaining Social Work Practice—The CAIMeR Theory. *Journal of Social Work*, *10*(1), 98–119. https://doi.org/10.1177/1468017309350661

Blom, B., & Morén, S. (2011). Analysis of Generative Mechanisms. *Journal of Critical Realism*, *10*(1), 60–79. https://doi.org/10.1558/jcr.v10i1.60

Blömeke, S. (2012). Content, professional preparation, and teaching methods: How diverse is teacher education across countries? *Comparative Education Review*, *56*(4), 684–714.

Booth, T. (1999). Viewing Inclusion from aDistance: Gaining Perspective from Comparative Study. *Support for Learning*, *14*(4), 164–168.

Booth, T., & Ainscow, M. (2016). *Index for Inclusion: Develop learning and participation in schools*.

Boyatzis, R. (1998). *Transforming Qualitive Information: Thematic analysis and code development*. Thousand Oaks: SAGE Publications Ltd.

Broaded, C. M. (1997). The Limits and Possibilities of Tracking: Some Evidence from Taiwan. *Sociology of Education*, *70*(1), 36. https://doi.org/10.2307/2673191

Brock-Utne, B. (2010). *Language of instruction in Tanzania and South Africa highlights from a project*. Rotterdam, the Netherlands; Boston: Sense Publishers.

Brock-Utne, B., Desai, Z., & Qorro, M. (2006). *Focus on Fresh Data on the Language of Instruction Debate in Tanzania and South Africa*. African Minds.

Buchert, L. (1994). *Education in the Development of Tanzania, 1919-90*. James Currey.

Carrington, S., & Robinson, R. (2004). A case study of inclusive school development: A journey of learning. *International Journal of Inclusive Education*, *8*(2), 141–153. https://doi.org/10.1080/1360311032000158024

Chafi, M. E., & Elkhouzai, E. (2014). Classroom Interaction: Investigating the Forms and Functions of Teacher Questions in Moroccan Primary School. *Classroom Interaction*, *6*(3), 10.

Chaiklin, S. (2003). The Zone of Proximal Development in Vygotsky's Analysis of Learning and Instruction. In *Vygotsky's Educational Theory in Cultural Context*. Cambridge: Cambridge University Press.

Chimedza, R. (2008). Disability and Inclusive Education in Zimbabwe. In *Policy, Experience and Change: Cross-Cultural Reflections on Inclusive Education* (4th ed., pp. 123–132). London.

Chisholm, L., & Leyendecker, R. (2008). Curriculum reform in post-1990s sub-Saharan Africa. *International Journal of Educational Development*, *28*(2), 195–205. https://doi.org/10.1016/j.ijedudev.2007.04.003

Clayman, S., & Gill, V. (2011). Conversation Analysis. In *The Routledge Handbook of Discourse Analysis*. London ; New York: Routledge.

Clough, P., & Corbett, J. (2000). *Theories of Inclusive Education*. Thousand Oaks, California: Sage Publications.

Cobb, P., Boufi, A., McClain, K., & Whitenack, J. (1997). Reflective Discourse and Collective Reflection. *Journal for Research in Mathematics Education*, *28*(3), 258. https://doi.org/10.2307/749781

Cochran-Smith, M., Shakman, K., Jong, C., Terrell, D. G., Barnatt, J., & McQuillan, P. (2009). Good and Just Teaching: The Case for Social Justice in Teacher Education. *American Journal of Education*, *115*(3), 347–377. https://doi.org/10.1086/597493

Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods in Education* (7th ed.). New York: Routledge.

Consuegra, E., Engels, N., & Willegems, V. (2016). Using video-stimulated recall to investigate teacher awareness of explicit and implicit gendered thoughts on classroom interactions. *Teachers and Teaching*, *22*(6), 683–699. https://doi.org/10.1080/13540602.2016.1158958

Cooksey, B. (1986). Policy and practice in Tanzanian secondary education since 1967. *International Journal of Educational Development*, *6*(3), 183–202. https://doi.org/10.1016/0738-0593(86)90016-7

Copland, F., & Creese, A. (2015). *Linguistic Ethnography: Collecting, Analysing and Presenting Data*. https://doi.org/10.4135/9781473910607

Cotton, D. R. E., Stokes, A., & Cotton, P. A. (2010). Using Observational Methods to Research the Student Experience. *Journal of Geography in Higher Education*, *34*(3), 463–473. https://doi.org/10.1080/03098265.2010.501541

Creswell, J. (2013). *Qualitative Inquiry and Reserch Design: Choosing among five cpproaches* (3rd ed.). Thousand Oaks: Sage Publications.

Cullen, R. (2002). Supportive teacher talk: The importance of the F-move. *ELT Journal*, *56*(2), 117–127. https://doi.org/10.1093/elt/56.2.117

Dallimore, E. J., Hertenstein, J. H., & Platt, M. B. (2013). Impact of Cold-Calling on Student Voluntary Participation. *Journal of Management Education*, *37*(3), 305–341. https://doi.org/10.1177/1052562912446067

DeBrincat, D. (2015). Yes, No, Wait, What?: The Benefits of Student Mistakes in the Classroom. *The History Teacher*, *49*(1), 9–34.

Delamont, M. (2012). *The Handbook of Qualitative Research in Education*. Northamton, MA: Edward Elgar Publishing.

Dewey, J. (1998). *Experience and Education: The 60th Anniversary Edition*. West Lafayette, Ind: Kappa Delta Pi.

Dixon, R. M., & Verenikina, I. (2007). Towards Inclusive Schools: An Examination of Socio-cultural Theory and Inclusive Practices and Policy in New South Wales DET Schools. *Cultural Theory*, 18.

Dome´nech Betoret, F., & Go´mez Artiga, A. (2004). Trainee teachers' conceptions of teaching and learning, classroom layout and exam design. *Educational Studies*, *30*(4), 355–372. https://doi.org/10.1080/0305569042000310309

Duflo, E., Dupas, P., & Kremer, M. (2011). Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya. *American Economic Review*, *101*(5), 1739–1774. https://doi.org/10.1257/aer.101.5.1739

Dyson, A., Howes, A., & Roberts, B. (2002). *A systematic review of the effectiveness of school-level actions for promoting participation by all students (EPPI-Centre Review, version 1.1*)*. London: Social Science Research Unit, Institute of Education.

Edwards, D., & Mercer, N. (1987). *Common knowledge: The development of understanding in the classroom*. Abingdon, Oxon; New York: Routledge.

Edwards, J. (2005). The Transcription of Discourse. In D. Schiffrin, D. Tannen, & H. E. Hamilton (Eds.), *The Handbook of Discourse Analysis* (pp. 321–348). https://doi.org/10.1002/9780470753460.ch18

Edwards, P. K., O'Mahoney, J., & Vincent, S. (Eds.). (2014). *Studying Organizations Using Critical Realism: A Practical Guide*. https://doi.org/10.1093/acprof:oso/9780199665525.001.0001

Engelbrecht, P. (2006). The implementation of inclusive education in South Africa after ten years of democracy. *European Journal of Psychology of Education*, *21*(3), 253–264.

Falk, A. (2012). Teachers learning from professional development in elementary science: Reciprocal relations between formative assessment and pedagogical content knowledge. *Science Education*, *96*(2), 265–290. https://doi.org/10.1002/sce.20473

Fennema, E. (1990). Justice, Equity, and Mathematics Education. In *Mathematics and Gender*. Wiliston VT: Teachers College Press.

Ferguson, G. (2006). *Language Planning and Education*. Edinburgh: Edinburgh University Press.

Florian, L. (2014). What counts as evidence of inclusive education? *European Journal of Special Needs Education*, *29*(3), 286–294. https://doi.org/10.1080/08856257.2014.933551

Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal*, *37*(5), 813–828. https://doi.org/10.1080/01411926.2010.501096

Florian, L., & Kershner, R. (2009). Inclusive Pedagogy. In *Knowledge, Values and Educational Policy A Critical Perspective, Edited by Harry Daniels, Hugh Lauder, Jill Porter* (1st ed.). London ; New York: Routledge.

Florian, L., & Linklater, H. (2010). Preparing teachers for inclusive education: Using inclusive pedagogy to enhance teaching and learning for all. *Cambridge Journal of Education*, *40*(4), 369–386. https://doi.org/10.1080/0305764X.2010.526588

Florian, L., & Spratt, J. (2013). Enacting inclusion: A framework for interrogating inclusive practice. *European Journal of Special Needs Education*, *28*(2), 119–135. https://doi.org/10.1080/08856257.2013.778111

Florio-Ruane, S. (2002). More Light: An Argument for Complexity in Studies of Teaching and Teacher Education. *Journal of Teacher Education*, *53*(3), 205–215. https://doi.org/10.1177/0022487102053003003

Foddy, W. (1993). *Constructing Questions for Interviews and Questionnaires: Theory and Practice in Social Research*. https://doi.org/10.1017/CBO9780511518201

Fritschner, M. (2000). Inside the Undergraduate College Classroom. *The Journal of Higher Education*, *73*(3), 342–362. https://doi.org/10.1080/00221546.2000.11780826

Fuller, B., Hua, H., & Snyder Jr, C. W. (1994). When girls learn more than boys: The influence of time in school and pedagogy in Botswana. *Comparative Education Review*, *38*(3), 347–376.

Gabbert, W. (2001). Social and Cultural Conditions of Religious Conversion in Colonial Southwest Tanzania, 1891-1939. *Ethnology*, *40*(4), 291. https://doi.org/10.2307/3773878

Galton, M., Hargreaves, L., & Comber, C. (1998). Classroom Practice and the National Curriculum in Small Rural Primary Schools. *British Educational Research Journal*, *24*(1), 43–61. https://doi.org/10.1080/0141192980240104

Gamoran, A., & Nystrand, M. (1992). Taking students seriously. In *Student engagement and achievement in American secondary schools*. Teachers College Press.

Gamoran Sherin, M., & van Es, E. A. (2009). Effects of Video Club Participation on Teachers' Professional Vision. *Journal of Teacher Education*, *60*(1), 20–37. https://doi.org/10.1177/0022487108328155

Gardinier, M. P. (2012). Agents of change and continuity: The pivotal role of teachers in Albanian educational reform and democratization. *Comparative Education Review*, *56*(4), 659–683.

Gergen, M. M., & Gergen, K. J. (2000). Qualitative Inquiry: Tensions and Transformations. In *N. Denzin and Y. Lincoln (eds), Handbook of Qualitative Research* (2nd ed., pp. 1025–1046). London: SAGE Publications, Inc.

Gibson, S., & Dembo, M. (1984). Teacher Efficacy: A Construct Validation. *Journal of Educational Psychology*, *76*(4), 569–582.

Good, T. L. (1970). Which pupils do teachers call on? *Elementary School Journal*, *70*(4), 190–198.

Grossman, P. L., & Stodolsky, S. S. (1994). Considerations of Content and the Circumstances of Secondary School Teaching. *Review of Research in Education*, *20*, 179. https://doi.org/10.2307/1167384

Hallgren, K. A. (2012). Computing Inter-Rater Reliability for Observational Data: An Overview and Tutorial. *Tutorials in Quantitative Methods for Psychology*, *8*(1), 23–34. https://doi.org/10.20982/tqmp.08.1.p023

Hardman, F., Abd-Kadir, J., & Tibuhinda, A. (2012). Reforming teacher education in Tanzania. *International Journal of Educational Development*, *32*(6), 826–834. https://doi.org/10.1016/j.ijedudev.2012.01.002

Hardman, F., & Dachi, H. (2012a). Evaluation of School-Based INSET Pilot Programme. *Final Report*. Retrieved from http://www.york.ac.uk/media/iee/documents/Final%20report%20Tanzania%20INSET%20pilot%202013.pdf

Hardman, F., & Dachi, H. (2012b). Evaluation of School-Based INSET Pilot Programme. *Final Report*. Retrieved from http://www.york.ac.uk/media/iee/documents/Final%20report%20Tanzania%20INSET%20pilot%202013.pdf

Hargreaves, D. H. (1984). Teachers' questions: Open, closed and half-open. *Educational Research*, *26*(1), 46–51. https://doi.org/10.1080/0013188840260108

Harley, K., Barasa, F., Bertram, C., Mattson, E., & Pillay, S. (2000). "The real and the ideal": Teacher roles and competences in South African policy and practice. *International Journal of Educational Development*, *20*(4), 287–304.

Hart, S., Dixon, A., Drummond, M. J., & Mclintyre, D. (2004). *Learning without Limits*. Maidenhead: Open University Press.

Hashweh, M. (2013). Chapter 6 Pedagogical Content Knowledge: Twenty-Five Years Later. In C. J. Craig, P. C. Meijer, & J. Broeckmans (Eds.), *Advances in Research on Teaching* (Vol. 19, pp. 115–140). https://doi.org/10.1108/S1479-3687(2013)0000019009

Haug, P. (2010). Approaches to empirical research on inclusive education. *Scandinavian Journal of Disability Research*, *12*(3), 199–209. https://doi.org/10.1080/15017410903385052

Hennessy, S., Haßler, B., & Hofmann, R. (2016). Pedagogic change by Zambian primary school teachers participating in the OER4Schools professional development programme for one year. *Research Papers in Education*, *31*(4), 399–427. https://doi.org/10.1080/02671522.2015.1073343

Hennessy, S., Rojas-Drummond, S., Higham, R., Márquez, A. M., Maine, F., Ríos, R. M., Barrera, M. J. (2016). Developing a coding scheme for analysing classroom dialogue across educational contexts. *Learning, Culture and Social Interaction*, *9*, 16–44. https://doi.org/10.1016/j.lcsi.2015.12.001

Ho, D. G. E. (2005). Why Do Teachers Ask the Questions They Ask? *RELC Journal*, *36*(3), 297–310. https://doi.org/10.1177/0033688205060052

Hofman, R. H., & Kilimo, J. S. (2014). Teachers' Attitudes and Self-Efficacy Towards Inclusion of Pupils With Disabilities in Tanzanian Schools. *Journal of Education and Training*, *1*(2), 177. https://doi.org/10.5296/jet.v1i2.5760

Hofmann, R., & Ruthven, K. (2018). Operational, interpersonal, discussional and ideational dimensions of classroom norms for dialogic practice in school mathematics. *British Educational Research Journal*, *44*(3), 496–514. https://doi.org/10.1002/berj.3444

Holsinger, D., & Cowell, R. (2000). *Positioning secondary school education in developing countries*. UNESCO.

Hope, K. R. (2012). Engaging the youth in Kenya: Empowerment, education, and employment. *International Journal of Adolescence and Youth*, *17*(4), 221–236. https://doi.org/10.1080/02673843.2012.657657

Hornberger, N. H., & Chick, K. (2001). *Co-Constructing School Safetime: Safetalk Practices in Peruvian and South African Classrooms*. 13.

Howe, C., & Abedin, M. (2013). Classroom dialogue: A systematic review across four decades of research. *Cambridge Journal of Education*, *43*(3), 325–356. https://doi.org/10.1080/0305764X.2013.786024

Hymes, D. (1972). Models of interaction in language and social life. In *In J. J. Gumperz & D. Hymes (Eds.), Directions in Sociolinguistics: The Ethnography of Communication* (pp. 35–71). London: Basil Blackwell.

Irvine, J. (2010). *Introduction. In Culture, Curriculum, and Identity in Education, edited by H. R. Milner.* New York: Palgrave Macmillan.

Ishengoma, J. M., & Youngman, D. J. (1999). Educational Equity in Tanzania: The Imperiled Promise of Reform. *Journal of Education*, *181*(1), 59–73. https://doi.org/10.1177/002205749918100105

Israel, M., & Hay, I. (2006). *Research Ethics for Social Scientists*. https://doi.org/10.4135/9781849209779

Jakobsen, H. (2012). Focus groups and methodological rigour outside the minority world: Making the method work to its strengths in Tanzania. *Qualitative Research*, *12*(2), 111–130. https://doi.org/10.1177/1468794111416145

Jangira, N. K. (1995). Rethinking teacher education. *Prospects*, *25*(2), 261–272.

Jaramillo, J. (1996). Vygotsky's sociocultural theory and contributions to the development of constructivist curricula. *Education*, *117*(1).

Jarvis, J., & Robinson, M. (1997). Analysing Educational Discourse: An Exploratory Study of Teacher Response and Support to Pupils' Learning1. *Applied Linguistics*, *18*(2), 212–228. https://doi.org/10.1093/applin/18.2.212

Jefferson, G. (2004). Glossary of transcript symbols with an introduction. In *Conversation Analysis: Studies from the first generation Edited by Gene H. Lerner* (pp. 13–31). Amsterdam/P: John Benjamins Publishing Company.

Jha, Madan. (2007). Barriers to Student Access and Success: Is Inclusive Education an Answer? In *International Perspectives on Educational Diversity and Inclusion: Studies from America, Europe and India / edited by Gajendra K. Verma, Christopher Bagley and Madan Jha.* London: Routledge.

Jha, Mohan. (2002). *Schools without walls: Inclusive education for all* (2nd ed.). Oxford: Madhuban Education Books/Heinemann.

Johnson, R. B. (1997). Examining the validity structure of qualitative research. *Education*, *118*(2), 11.

Johnstone, C. J., & Chapman, D. W. (2009). Contributions and Constraints to the Implementation of Inclusive Education in Lesotho. *International Journal of Disability, Development and Education*, *56*(2), 131–148. https://doi.org/10.1080/10349120902868582

Jong, C. (2017). Extending Equitable Practices in Teacher Noticing: Commentary. In E. O. Schack, M. H. Fisher, & J. A. Wilhelm (Eds.), *Teacher Noticing: Bridging and Broadening Perspectives, Contexts, and Frameworks* (pp. 207–214). https://doi.org/10.1007/978-3-319-46753-5_12

Jordan, A., Lindsay, L., & Stanovich, P. J. (1997). Classroom teachers' instructional interactions with students who are exceptional, at risk, and typically achieving. *Remedial and Special Education*, *18*(2), 82–93.

Jukes, M. C. H., & Gabrieli, P. (2018). *Community Perceptions of Social and Emotional Competencies in Early Childhood from Mtwara, Tanzania*. 29.

Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2014). Pronoun Use Reflects Standings in Social Hierarchies. *Journal of Language and Social Psychology*, *33*(2), 125–143. https://doi.org/10.1177/0261927X13502654

Kennedy, M. M. (2016). How does professional development improve teaching? *Review of Educational Research*, 0034654315626800.

King, K. (2004). The external agenda of educational reform: A challenge to educational self-reliance and dependency in sub-Saharan Africa. *Journal of International Cooperation in Education*, *7*(1), 85–96.

Kitta, S., & Fussy, D. (2013). Bottlenecks in Preparation of Quality Teachers in Tanzania. *Time Journals of Arts and Educational Research*, *1*(5), 29–38.

Klinzing-Euricji, G. (1988). Teacher questioning, Questioning Exchange. In *School Matters: The junior years*. Wells: Open Books.

Koole, T. (2003). The Interactive Construction of Heterogeneity in the Classroom. *Linguistics and Education*, *14*(1), 3–26. https://doi.org/10.1016/S0898-5898(03)00010-X

Koole, T. (2012). The epistemics of student problems: Explaining mathematics in a multi-lingual class. *Journal of Pragmatics*, *44*(13), 1902–1916. https://doi.org/10.1016/j.pragma.2012.08.006

Koole, T., & Elbers, E. (2014). Responsiveness in teacher explanations: A conversation analytical perspective on scaffolding. *Linguistics and Education*, *26*, 57–69. https://doi.org/10.1016/j.linged.2014.02.001

Kozulin, A., Gindis, B., Ageyev, V., & Miller, S. (2003). Introduction: Sociocultural Theory and Education: Students, Teachers, and Knowledge. In *A. Kozulin, B. Gindis, V. Ageyev, & S. Miller (Eds.), Vygotsky's Educational Theory in Cultural Context*. Cambridge: Cambridge University Press.

Kutnick, P., & Blatchford, P. (2014). *Effective Group Work in Primary School Classrooms*. Springer Verlag.

Lantolf, J. P. (2000). *Sociocultural Theory and Second Language Learning*. Oxford: Oxford University Press.

Larsen-Freeman, D., Kuehn, T., & Haccius, M. (2002). Helping Students Make Appropriate English Verb TenseAspect Choices. *TESOL JOURNAL*, *11*(4), 7.

Lauermann, F., & Karabenick, S. A. (2013). The meaning and measure of teachers' sense of responsibility for educational outcomes. *Teaching and Teacher Education*, *30*, 13–26. https://doi.org/10.1016/j.tate.2012.10.001

Lemke, J. L. (1990). *Talking Science: Language, learning, and values*. New Jersey: Ablex Publishing Corporation.

Leste, A. (2005). Streaming in Seychelles: From SACMEQ research to policy reform. *SACMEQ Research Conference. Paris: UNESCO*. Retrieved from http://www.sacmeq.org/sites/default/files/sacmeq/research/Papers%20from%20the%202005%20International%20Invitational%20Educational%20Policy%20Research%20Conference/leste.pdf

Lipson, J. (1994). Ethical Issues in Ethnography. In *Critical Issues in Qualitative Research Methods edited by Janice Morse*. Thousand Oaks, CA: Sage Publications.

Lomofsky, L., & Lazarus, S. (2001). South Africa: First steps in the development of an inclusive education system. *Cambridge Journal of Education*, *31*(3), 303–317. https://doi.org/10.1080/03057640120086585

Lou, Y., Abrami, P. C., Spence, J. C., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping: A meta-analysis. *Review of Educational Research*, *66*(4), 423–458.

Magrab, P. R. (2003). *Towards inclusive practices in secondary education*. Retrieved from http://sid.usal.es/idocs/F8/FDO6943/towards_inclusive_practices_in_secundary_education.pdf

Martínez, E. (2017). *"I had a dream to finish school": Barriers to secondary education in Tanzania*. New York, N.Y.: Human Rights Watch.

Marvin, C. (1998). Individual and Whole Class Teaching. In *Promoting Inclusive Practice*. London: Routledge.

Mbilinyi, M. (2003). Equity, justice and transformation in education: The challenge of Mwalimu Julius Nyerere today. *Dar Es Salaam, HakiElimu*, 1–11.

Mcinemey, D., Walker, R., & Liem, G. (2011). *Sociocultural Theories of Learning and Motivation: Looking Back, Looking Forward*. Information Age Publishers.

Mehan, H. (1979). *Learning Lessons Social Organization in the Classroom*. Harvard University Press.

Meijer, C., & Foster, S. F. (1988). The Effect of Teacher Self-Efficacy on Referral Chance. *The Journal of Special Education*, *22*(3), 378–385.

Mercer, N. (2004). Language and the Joint Creation of Knowledge: The Selected Works of Neil Mercer. *Journal of Applied Linguistics*, *1*(2). https://doi.org/10.4324/9780429400759

Mercer, N., & Littleton, K. (2007). *Dialogue and the development of children's thinking a sociocultural approach*. New York: Routledge.

Merritt, M., Cleghorn, A., Abagi, J. O., & Bunyi, G. (1992). Socialising multilingualism: Determinants of codeswitching in Kenyan primary classrooms. *Journal of Multilingual and Multicultural Development*, *13*(1–2), 103–121. https://doi.org/10.1080/01434632.1992.9994486

Meyer, D. K., & Turner, J. C. (2002). Using Instructional Discourse Analysis to Study the Scaffolding of Student Self-Regulation. *Educational Psychologist*, *37*(1), 17–25. https://doi.org/10.1207/S15326985EP3701_3

Miguel, E. (2004). Tribe or Nation? Nation Building and Public Goods in Kenya versus Tanzania. *World Politics*, *56*(3), 327–362. https://doi.org/10.1017/S0043887100004330

Miles, S., & Singal, N. (2010). The Education for All and inclusive education debate: Conflict, contradiction or opportunity? *International Journal of Inclusive Education*, *14*(1), 1–15. https://doi.org/10.1080/13603110802265125

Milligan, L. (2016). Insider-outsider-inbetweener? Researcher positioning, participative methods and cross-cultural educational research. *Compare: A Journal of Comparative and International Education*, *46*(2), 235–250. https://doi.org/10.1080/03057925.2014.928510

MoEVT. (2014). *United Republic of Tanzania Mainland Educatin for All 2015 National Review*.

Morge, L. (2005). Teacher–pupil interaction: A study of hidden beliefs in conclusion phases. *International Journal of Science Education*, *27*(8), 935–956. https://doi.org/10.1080/09500690500068600

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification Strategies for Establishing Reliability and Validity in Qualitative Research. *International Journal of Qualitative Methods*, *1*(2), 13–22. https://doi.org/10.1177/160940690200100202

Mtema, N. (2019). Form 4 Exams Pass Rate Up. *Daily News*. Retrieved from https://dailynews.co.tz/news/2019-01-255c4aa8a83735a.aspx

Munn, P., & Lloyd, G. (2005). Exclusion and excluded pupils. *British Educational Research Journal*, *31*(2), 205–221. https://doi.org/10.1080/0141192052000340215

Murphy, P. K., Wilkinson, I. A. G., Soter, A. O., Hennessey, M. N., & Alexander, J. F. (2009). Examining the effects of classroom discussion on students' comprehension of

text: A meta-analysis. *Journal of Educational Psychology, 101*(3), 740–764. https://doi.org/10.1037/a0015576

Mushi, P. (2009). *History and Development of Education in Tanzania By Philemon Andrew K. Mushi*. Dar es Salaam: Dar es Salaam University Press.

Mwinsheikhe, H. (2008). Overcoming the language barrier: An in-depth study of the strategies used by Tanzanian secondary science teachers and students in coping with the English-Kiswahili dilemna. In *LOITASA: Relecting on Phase I and Entering Phase II*. Dar es Salaam: E&D Publishing Ltd.

Myhill, D., Jones, S., & Hopper, R. (2006). *Talking, Listening, Learning: Effective talk in the primary classroom*. New York: Open University Press.

Namamba, A., & Rao, C. (2017). Preparation and Professional Development of Teacher Educators in Tanzania: Current Practices and Prospects. *Journal of Education and Practice*, 10.

Nunan, D. (1990). The Questions Teachers Ask. *JALT Journal, 12*(2), 187–202.

Nystrand, M. (1997). *Opening Dialogue: Understanding the Dynamics of Language and Learning in the English Classroom*. New York: Teachers College Press.

O'Brien, T., & Guiney, D. (2001). *Differentiation in teaching and learning: Principles and practice*. London: Continuum.

OECD. (2012). *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*. https://doi.org/10.1787/9789264130852-en

Oketch, M. (2017). *Launch of the Centre for Education and International Development Launch Symposium Openning Address*. Presented at the Centre for Education and International Development symposium, Centre for Education and International Development, London.

Ortiz, I., & Cummins, M. (2012). *When the global crisis and youth bulge collide* (p. 47). UNICEF.

Park, M.-H., Dimitrov, D. M., Das, A., & Gichuru, M. (2016). The teacher efficacy for inclusive practices (TEIP) scale: Dimensionality and factor structure. *Journal of Research in Special Educational Needs, 16*(1), 2–12. https://doi.org/10.1111/1471-3802.12047

Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3rd ed.). London: Sage Publications.

Pawson, R., & Tilley, N. (1997). *Realistic Evaluation*. London: Sage Publications.

Peterson, E. R., Rubie-Davies, C., Osborne, D., & Sibley, C. (2016). Teachers' explicit expectations and implicit prejudiced attitudes to educational achievement: Relations with student achievement and the ethnic achievement gap. *Learning and Instruction, 42*, 123–140. https://doi.org/10.1016/j.learninstruc.2016.01.010

Pfister, M., Moser Opitz, E., & Pauli, C. (2015). Scaffolding for mathematics teaching in inclusive primary classrooms: A video study. *ZDM, 47*(7), 1079–1092. https://doi.org/10.1007/s11858-015-0713-4

Phillipson, N., & Wegerif, R. (2016). *Dialogic Education: Mastering core concepts through thinking together*. London: Routledge.

Pierson, J. (2008). *The relationship between patterns of classroom discourse and mathematics learning*. The University of Texas at Austin.

Pontefract, C., & Hardman, F. (2005). The discourse of classroom interaction in Kenyan primary schools. *Comparative Education*, *41*(1), 87–106. https://doi.org/10.1080/03050060500073264

Pop, D., & Badescu. (2012). Social Inclusion through Education. In *Education Policy and Equal Education Opportunities* (p. 300). New York: Open Society Foundations.

Prime Ministers Office. (2015). *Pre- Primary, Primary and Secondary Education Statistics 2015*. Prime Minister's Office Regional Administration and Local Government.

Rajab, T. (2015). *A Socio-Cultural Study of Pedagogical Practices inside Syrian EFL Classrooms*. 18.

Rampton, B. (2007). Neo-Hymesian linguistic ethnography in the United Kingdom: LINGUISTIC ETHNOGRAPHY. *Journal of Sociolinguistics*, *11*(5), 584–607. https://doi.org/10.1111/j.1467-9841.2007.00341.x

Razer, M., Friedman, V. J., & Warshofsky, B. (2013). Schools as agents of social exclusion and inclusion. *International Journal of Inclusive Education*, *17*(11), 1152–1170. https://doi.org/10.1080/13603116.2012.742145

Retelsdorf, J., Butler, R., Streblow, L., & Schiefele, U. (2010). Teachers' goal orientations for teaching: Associations with instructional practices, interest in teaching, and burnout. *Learning and Instruction*, *20*(1), 30–46. https://doi.org/10.1016/j.learninstruc.2009.01.001

Rittle-Johnson, B., & Schneider, M. (2014). *Developing Conceptual and Procedural Knowledge of Mathematics* (Vol. 1; R. Cohen Kadosh & A. Dowker, Eds.). https://doi.org/10.1093/oxfordhb/9780199642342.013.014

Rose, P., & Alcott, B. (2015). How Can Education Systems Become Equitable by 2030? *DFID Think Pieces–Learning and Equity, United Kingdom Department for International Development, Londres*, 12–14.

Roy-Campbell, Z., & Qorro, M. (1997). *Language crisis in Tanzania: The myth of English versus education*. Dar es Salaam: Mkuki Na Nyota Publishers.

Rubie-Davies, C. (2009). Teacher expectations and labeling. In *International handbook of research on teachers and teaching* (pp. 695–707). Retrieved from http://link.springer.com/chapter/10.1007/978-0-387-73317-3_43

Rugambwa, A., & Thomas, M. (2013). Teachers' Conceptualizations and Practices of Inclusion. In *F. Vavrus and L. Bartlett (Eds)*. *Teaching in Tension*. Sense Publishers.

Ruiz-Primo, M. A. (2011). Informal formative assessment: The role of instructional dialogues in assessing students' learning. *Studies in Educational Evaluation*, *37*(1), 15–24. https://doi.org/10.1016/j.stueduc.2011.04.003

Ruthven, K., & Hofmann, R. (2016). A case study of epistemic order in mathematics classroom dialogue. *PNA*, *11*(1), 29.

Sabates, R., Westbrook, J., & Hernandez-Fernandez, J. (2012). The 1977 Universal Primary Education in Tanzania: A historical base for quantitative enquiry. *International Journal of Research & Method in Education*, *35*(1), 55–70. https://doi.org/10.1080/1743727X.2011.609551

Saldaña, J. (2013). *The coding manual for qualitative researchers* (2. ed). Los Angeles, Calif.: SAGE Publ.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., … Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Qual Quant*, *52*(4), 1893–1907.

Sayer, A. (2000). *Realism and Social Science*. London: Sage Publications.

Schachter, R. E. (2017). Early Childhood Teachers' Pedagogical Reasoning About How Children Learn During Language and Literacy Instruction. *International Journal of Early Childhood*, *49*(1), 95–111. https://doi.org/10.1007/s13158-017-0179-3

Shulman, L. S. (1986). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher*, *15*(2), 4. https://doi.org/10.2307/1175860

Schumm, J. S., & Vaughn, S. (1992). Planning for mainstreamed special education students: Perceptions of general classroom teachers. *Exceptionality*, *3*(2), 81–98. https://doi.org/10.1080/09362839209524799

Schweisfurth, M. (2015). Learner-centred pedagogy: Towards a post-2015 agenda for teaching and learning. *International Journal of Educational Development*, *40*, 259–266. https://doi.org/10.1016/j.ijedudev.2014.10.011

Scott, P. H., Mortimer, E. F., & Aguiar, O. G. (2006). The tension between authoritative and dialogic discourse: A fundamental characteristic of meaning making interactions in high school science lessons. *Science Education*, *90*(4), 605–631. https://doi.org/10.1002/sce.20131

Sebba, J., & Ainscow, M. (1996). International Developments in Inclusive Schooling: Mapping the issues. *Cambridge Journal of Education*, *26*(1), 5–18. https://doi.org/10.1080/0305764960260101

Seedhouse, P. (1996). Classroom Interaction: Possibilities and Impossibilies. *ELT Journal*, *50*(1), 17–24.

Sewell, W. (1992). A Theory of Structure: Duality, Agency, and Transformation. *American Journal of Sociology*, *98*(1), 1–29.

Shavelson, R., & Stern, P. (1981). Research on teachers' pedagogical thoughts, judgements, decisions, and behavior. *Review of Research in Education*, *51*, 455–498.

Shepherd, M. A. (2014). The discursive construction of knowledge and equity in classroom interactions. *Linguistics and Education*, *28*, 79–91. https://doi.org/10.1016/j.linged.2014.08.006

Sheriff, A. H. (1974). The Dynamics of Change in Pre-Colonial East African Societies. *African Economic History Review*, *1*(2), 7. https://doi.org/10.2307/3601096

Shulman, L. S. (1986). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher*, *15*(2), 4. https://doi.org/10.2307/1175860

Sifuna, D. N. (2007). The Challenge of Increasing Access and Improving Quality: An Analysis of Universal Primary Education Interventions in Kenya and Tanzania since the 1970s. *International Review of Education*, *53*(5–6), 687–699. https://doi.org/10.1007/s11159-007-9062-z

Silverman, D. (2011). *Interpreting Qualitative Data*. Sage Publications.

Sims-Schouten, W., Riley, S. C. E., & Willig, C. (2007). Critical Realism in Discourse Analysis: A Presentation of a Systematic Method of Analysis Using Women's Talk of Motherhood, Childcare and Female Employment as an Example. *Theory & Psychology*, *17*(1), 101–124. https://doi.org/10.1177/0959354307073153

Sinclair, J. McH., & Coulthard, R. M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils*. Oxford: Oxford University Press.

Singal, N. (2005). Mapping the field of inclusive education: A review of the Indian literature. *International Journal of Inclusive Education*, *9*(4), 331–350. https://doi.org/10.1080/13603110500138277

Skovdal, M., & Cornish, F. (2015). *Qualitative Research for Development*. Retrieved from http://www.developmentbookshelf.com/doi/pdf/10.3362/9781780448534

Smith, C., & Elger, T. (2012). *Critical Realism and Interviewing Subjects*. 31.

Smylie, M. A. (1988). The Enhancement Function of Staff Development: Organizational and Psychological Antecedents to Individual Teacher Change. *American Educational Research Journal*, *25*(1), 1. https://doi.org/10.2307/1163157

Sommer, R. (1977). Classroom Layout. *Theory Into Practice*, *16*(3), 174–175. https://doi.org/10.1080/00405847709542694

Sommers, M. (2010). Urban youth in Africa. *Environment and Urbanization*, *22*(2), 317–332. https://doi.org/10.1177/0956247810377964

Srivastava, P. (2006). Reconciling multiple researcher positionalities and languages in international research. *Research in Comparative and International Education*, *1*(3), 210–222.

Srivastava, M., de Boer, A., & Pijl, S. J. (2015b). Inclusive education in developing countries: A closer look at its implementation in the last 10 years. *Educational Review*, *67*(2), 179–195. https://doi.org/10.1080/00131911.2013.847061

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K–12 Students' Academic Achievement: Findings of Two Second-Order Meta-Analyses. *Review of Educational Research*, *86*(4), 849–899. https://doi.org/10.3102/0034654316675417

Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, *7*(7), 935–947.

Sumra, S. (2017). *The Impact of the Implementation of Fee-Free Education Policy on Basic Education in Tanzania: A QUALITATIVE STUDY*. Dar es Salaam: Haki Elimu.

Tao, S. (2013a). *Rethinking Teacher Quality: Using Capability Approach and Critical Realism to provide causal explanations for teacher practice in Tanzania*. Institute of Education, University of London, London.

Tao, S. (2013b). Why are teachers absent? Utilising the Capability Approach and Critical Realism to explain teacher performance in Tanzania. *International Journal of Educational Development*, *33*(1), 2–14. https://doi.org/10.1016/j.ijedudev.2012.01.003

Tashakkori, A., & Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. United Kingdom: SAGE Publications Ltd.

Terzi, L. (2005). Beyond the dilemma of difference: The capability approach to disability and special educational needs. *Journal of Philosophy of Education*, *39*(3), 443–459.

Thomas, G. (2012). A review of thinking and research about inclusive education policy, with suggestions for a new kind of inclusive thinking. *British Educational Research Journal*, 1–18. https://doi.org/10.1080/01411926.2011.652070

Tight, M. (2010). The curious case of case study: A viewpoint. *International Journal of Social Research Methodology*, *13*(4), 329–339. https://doi.org/10.1080/13645570903187181

Tikly, L. (2015). What works, for whom, and in what circumstances? Towards a critical realist understanding of learning in international and comparative education. *International Journal of Educational Development*, *40*, 237–249. https://doi.org/10.1016/j.ijedudev.2014.11.008

Tikly, L. (2016). Education for All as a Global Regime of Educational Governance: Issues and Tensions. In S. Yamada (Ed.), *International Perspectives on Education and Society* (Vol. 29, pp. 37–65). https://doi.org/10.1108/S1479-367920140000029013

Todd, R., & Attfield, I. (2017). *Big Results Now! In Tanzanian education: Has the Delivery Approach delivered?* 48.

Tomlinson, C., Brighton, C., Hertberg, H., Callahan, C., Moon, T., Lynda, C., & Reynolds, T. (2003). Differentiating Instruction in Response to Student Readiness, Interest, and Learning Profile in Academically Diverse Classrooms: A Review of Literature. *Journal for the Education of the Gifted*, *27*(2/3), 119–145.

Tomlinson, J. (1997). *Inclusive Learning*: The Report of the Committee of Enquiry into the postschool education of those with learning difficulties and/or disabilities, in England, 1996. *European Journal of Special Needs Education*, *12*(3), 184–196. https://doi.org/10.1080/0885625970120302

Tsai, T.-L., & Li, H.-C. (2017). Towards a framework for developing students' fraction proficiency. *International Journal of Mathematical Education in Science and Technology*, *48*(2), 244–255. https://doi.org/10.1080/0020739X.2016.1238520

Tsang, E. W. K. (2014). Case studies and generalization in information systems research: A critical realist perspective. *The Journal of Strategic Information Systems*, *23*(2), 174–186. https://doi.org/10.1016/j.jsis.2013.09.002

Turner, E., Dominguez, H., Maldonado, L., & Empson, S. (2013). English Learners' Participation in Mathematical Discussion: Shifting Positionings and Dynamic Identities. *Journal for Research in Mathematics Education*, *44*(1), 199. https://doi.org/10.5951/jresematheduc.44.1.0199

Turner, J. C., & Patrick, H. (2004). Motivational Influences on Student Participation in Classroom Learning Activities. *Teachers College Record*, *106*(9), 1759–1785. https://doi.org/10.1111/j.1467-9620.2004.00404.x

Ulimwengu, J. (2005). *Nyerere on Education: A Commentary*. 10.

UNESCO. (2002). *Inclusive Schools and Community Support Pogrammes*.

Unesco (Ed.). (2010). *Reaching the marginalized*. Paris : Oxford: UNESCO ; Oxford University Press.

UNESCO. (2014). *Teaching and learning: Achieving quality for all*. Paris.

UNESCO. (2019). The World Bank Data Catalog: School enrollment, primary (% gross). Retrieved from https://data.worldbank.org/indicator/SE.PRM.ENRR

Uwezo. (2013). *Are Our Children Learning: Literacy and Numeracy Across East Africa*. Nairobi, Kenya: Uwezo.

van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in Teacher–Student Interaction: A Decade of Research. *Educational Psychology Review*, *22*(3), 271–296. https://doi.org/10.1007/s10648-010-9127-6

Van Es, E., Hand, V., & Mercado, J. (2017). Making visible the relationship between teachers' noticing for equity and equitable teaching practice. In *Teacher Noticing: Bridging and Broadening Perspectives, Contexts, and Frameworks*.

Vavrus, F., & Salema, V. (2013). Working Lives of Teachers. In *Teaching in Tension* (Vol. 2). Rotterdam: Sense Publishers.

Vavrus, F., & Seghers, M. (2009). Critical discourse analysis in comparative education: A discursive study of "partnership" in Tanzania's poverty reduction policies. *Comparative Education Review*, *54*(1), 77–103.

Vavrus, F., Thomas, M., & Bartlett, L. (2011). *Ensuring quality by attending to inquiry: Learner-centered pedagogy in sub-Saharan Africa*. 116.

Vingsle, C. (2014). *Formative assessment: Teacher knowledge and skills to make it happen*. Umeå universitet, Umeå.

Vissandjée, B., Abdool, S. N., & Dupéré, S. (2002). Focus Groups in Rural Gujarat, India: A Modified Approach. *Qualitative Health Research*, *12*(6), 826–843. https://doi.org/10.1177/10432302012006009

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language.* Cambridge, MA: MIT Press.

Wager, A. (2014). Noticing Children's Participation: Insights Into Teacher Positionality Toward Equitable Mathematics Pedagogy. *Journal for Research in Mathematics Education*, *45*(3), 312. https://doi.org/10.5951/jresematheduc.45.3.0312

Waitoller, F. R., & Artiles, A. J. (2013). A decade of professional development research for inclusive education: A critical review and notes for a research program. *Review of Educational Research*, *83*(3), 319–356.

Wannarka, R., & Ruhl, K. (2008). Seating arrangements that promote positive academic and behavioural outcomes: A review of empirical research. *Support for Learning*, *23*(2), 89–93. https://doi.org/10.1111/j.1467-9604.2008.00375.x

Warnock, M. (2005). *Special Educational Needs: A New Look*. Philosophy of Education Society of Great Britain Publications.

Watson, A. (2006). Some difficulties in informal assessment in mathematics. *Assessment in Education: Principles, Policy & Practice*, *13*(3), 289–303. https://doi.org/10.1080/09695940601035445

Webb, N. M., Franke, M. L., Ing, M., Wong, J., Fernandez, C. H., Shin, N., & Turrou, A. C. (2014). Engaging with others' mathematical ideas: Interrelationships among student

participation, teachers' instructional practices, and learning. *International Journal of Educational Research*, *63*, 79–93. https://doi.org/10.1016/j.ijer.2013.02.001

Weber, R. (2004). Editor's Comments: The Rhetoric of Positivism versus Interpretivism: A Personal View. *MIS Quarterly*, *28*(1). https://doi.org/10.2307/25148621

Wedgwood, R. (2007). Education and poverty reduction in Tanzania. *International Journal of Educational Development*, *27*(4), 383–396. https://doi.org/10.1016/j.ijedudev.2006.10.005

Wells, G. (1999). *Dialogic Inquiry: Towards a Sociocultural Practice and Theory of Education.* Cambridge: Cambridge University Press.

Werning, R., Artiles, A., Engelbrecht, P., Hummel, M., Marta, C., & Rothe, A. (2016). *Keeping the Promise? Contextualizing Inclusive Education in Developing Countries*. Bad Heilbrunn.

Westbrook, J., & Croft, A. (2015). Beginning to teach inclusively: An analysis of newly-qualified teacher pedagogy in lower primary classes in Tanzania. *Teaching and Teacher Education*, *51*, 38–46. https://doi.org/10.1016/j.tate.2015.05.003

Westbrook, J., Durrani, N., Brown, R., Orr, D., Pryor, J., Boddy, J., & Salvi, F. (2013). *Pedagogy, curriculum, teaching practices and teacher education in developing countries. Education rigorous literature review.* Retrieved from http://r4d.dfid.gov.uk/Output/195891/

Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in Qualitative Research. *Qualitative Health Research*, *11*(4), 522–537.

Wilson-Strydom, M., & Okkolin, M.-A. (2016). Enabling environments for equity, access and quality education post-2015: Lessons from South Africa and Tanzania. *International Journal of Educational Development*, *49*, 225–233. https://doi.org/10.1016/j.ijedudev.2016.03.010

Winch, C. (2017). *Teachers' Know-How: A Philosophical Investigation* (First Edition). John Wiley & Sons Ltd.

Wood, D. (1992). Teaching Talk. In *Thinking Voices: The Workd of the National Oracy Project*. London: Hodder and Stoughton.

Wu, K. (1993). *Classroom Interaction and Teacher Questions Revisited*. 20.

Yin, R. (1994). *Case Study Research. Design and Methods* (2nd ed.). Thousand Oaks: Sage.

Appendices

Appendix 1. Letter of local partnership

DAR ES SALAAM UNIVERSITY COLLEGE OF EDUCATION

A Constituent College of the University of Dar Es Salaam

Tei.022-2850978
Fax 022-2850952
E-mail:
dpacademic@duce.ac.tz

OFFICE OF THE DEPUTY PRINCIPAL ACADEMIC

P.O Box 2329,
Dar es Salaam
Tanzania.

Our Ref. DUCE/OF

30th May, 2017

Tanzania Commission for Science and Technology (COSTECH),
Ali Hassan Mwinyi Road,
P.O. Box 4302,
Dar es Salaam,
TANZANIA.

RE: LOCAL CONTACT FOR RESEARCH CLEARANCE ON BEHALF OF LISA B. WALKER

This letter is intended to establish that Dar es Salaam University College of Education (DUCE) through the Faculty of Education is serving as the local contact/collaborator in support of Lisa B. Walker's application for research clearance.

Ms. Walker is registered at the University of Cambridge, Faculty of Education as a PhD student and will be working on a research Project titled: "Educational inclusion in practice".

Please be free to contact me directly if you require any additional information.

Dr. Chua, C.L
For: Deputy Principal (Academic)

DAR-ES-SALAAM UNIVERSITY COLLEGE OF EDUCATION
FACULTY OF EDUCATION
DEAN'S OFFICE
P. O. Box 2329
DAR-ES-SALAAM
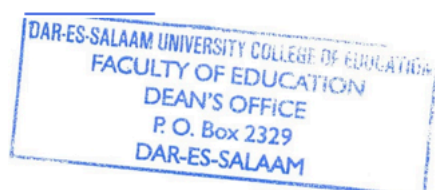
Appendix 2. Timeline

	E	RP	M	L	E	RP	M	L	E	RP	M
Period	2017			2018				2019			
Place	UK/TZ	UK/TZ	TZ	TZ	TZ	TZ	UK	UK	UK	UK	UK
Registration	█	█									
Sample Selection and Outreach		█	█								
Full pilot and instrument revisions		█	█								
School 1 & 2 Data Collection			█	█							
Preliminary Data Processing & Analysis				█	█						
School 3 & 4 Data Collection				█	█	█					
Data Processing & Analysis						█	█	█			
Findings Write-Up							█		█	█	
Lit Review and Methodology Re-Write									█	█	
Conclusions Write-Up										█	
Compilation and Submission											█
M = Michaelmas Term; L = Lent Term; E = Easter Term; RP = Research period											

Process-based note: Data collection timelines presented several context specific challenges. Schools in Tanzania are either on holiday or unavailable throughout the month of June and from late October to the end of February. Rainy season makes most non-tarmacked roads in semi-rural locations unpassable in parts of October, March and April. Data collection timetables and school selection were therefore strategically planned with ample contingency time. Where no field work was feasible, I prioritized analysis activities and key informant interviews with stakeholders located in Dar es Salaam.

Appendix 3. Sample Observation Protocol

Part I: Basic Information	
1. Teacher ID: 010102C	**6. Time *start* observation**: 8:13am
2. School ID: 01	**7. Time *finish* observation**: 9:00am
3. Date: 2-2-18	**8. Total Girls**: 92
4. Subject and Specific Topic: English and Introduction to literature	**9. Total Boys**: 53
5. Period Length (Double or Single): Double	**10. Class and Stream**: Form III, All Streams

Part II: Classroom Look and Resources

11. Description of classroom layout: Typical teacher- and blackboard-fronted classroom. The room is crammed full of students, wall to wall, front to back.

12. Description of teacher positioning and changes therein during instruction: Stays at the front. Very little movement.

13. Description of student positioning and changes therein during instruction: Traditional layout. No changes.

14. Description of resources used and their distribution, if any: N/A

15. Prominent activities: The majority of the lesson is oral Q&A punctuated by occasional brief lecture.

Part III: Qualities of Classroom Interactions (Evidence to be completed during and directly following observation. Ranking to take place only post observation.)

Quality of Interactions	**(1) None - Few**	**(2) Some**	**(3) Majority - All**	**Evidence/Examples**
16. Teacher sensitivity and responsiveness to learning needs. e.g. - Noticing student difficulties or lack of understanding or making attempts or accommodations to include all children, such as providing adapted or contingent support. - Ignoring some children and/or their lack of engagement.	The teacher shows awareness and is responsive to none or only a few students who need support.	The teacher shows awareness and is responsive to some students who need support.	The teacher shows awareness and is consistently responsive to the majority of students who need support.	**2/3** He uses several strategies in order to ensure different students gain access to opportunities for participation (inviting all students to act as judge, identifying groups of students particularly at risk of exclusion i.e. backbenchers and girls). He does tend to return to the same few particularly active students frequently throughout the lesson. He takes time to explore some student contributions, extending interactions with some students or inviting other students to participate in an attempt to ensure other students understand (e.g. Warini's contribution, idea of imagination, etc.) He fails to make accommodations for a girl who refuses to respond when addressed, instead reverting to a typically active student (Hamisi).
17. Positive relationships and affect	There are few, if any,	There are some	There are many	**2/3**

e.g. Supportive or friendly intonation, positive reinforcement versus yelling; sarcastic voice/ statements; physical punishment	indications that the teacher and students enjoy warm, supportive relationships with one another.	==indications that the teacher and students enjoy warm, supportive relationships with one another==	indications that the teacher and students enjoy warm, supportive relationships with one another.	Frequent use of aggressive or mocking tone in addressing classroom logistics-related issues. He explicitly calls one student 'annoying.' Warini asks a question, indicating that he feels comfortable with the teacher (note students very rarely ask questions, particularly without a teacher first initiating the interaction). His interaction with Tomlina is supportive and encouraging. He uses his authority to develop her confidence. He makes encouraging comments such as 'there is nothing to fear' to encourage participation and learning. Clearly has a positive relationship with some of his students, particularly those who he is able to call by name (e.g. Warini, Tomlina, Hamisi). For others, the relationship doesn't appears as neither positive nor negative.
18. Student on-task behaviour/participation during the lesson	There are few indications, if any, that students are engaged during instruction	==There are some indications that students are engaged during instruction.==	There are many indications that students are engaged during instruction.	**2/3** Frequent hand raising by many students throughout the lesson. The majority of students appear to engage at one point or another during the lesson, indicated through hand-raising, gaze, or response rate following choral invitations. There are also several instances in which some or many students appear distracted, looking out the window, failing to visually follow an interaction between a peer and the teacher, flipping through their exercise books, or whispering to one another. See Part IV for additional details.
19. Student to student interactions	==There are few, if any, opportunities for students to engage one another in learning.==	There are opportunities for peer learning however, the activities do not necessarily promote meaningful	There are opportunities for peer learning that promote meaningful peer interaction.	**1/3** The lesson is consistently moderated by the teacher, with no peer-based activities. Teacher invitations for others to judge prior student contribution reflects the only observed form of peer interaction; however, it is entirely moderated by the teacher.

		peer interaction.		
		Inclusivity Rating		**7/12**

Part IV. Time Stamps of student participation	
4:00-5:00	(Opening) Some students are looking up at the teacher (who is speaking beside the blackboard). Majority are writing in their exercise books, organizing their learning materials, or speaking to one another.
9:00-10:00	(Oral Q&A) Few hands are raising to bid for turns (only one per elicitation). The majority of students are looking down at their exercise books, and occasionally back up at the teacher.
14:00-15:00	(Oral Q&A) The majority of students are raising their hands to bid for turns. Those not raising their hands are looking up either at the teacher or, when a peer is speaking, at their peers. Quiet choral response in response to the teacher invitations for judgement.
19:00-20:00	(Brief Lecture) Many students are looking around in a disengaged way, flipping through their exercise books, looking out the window. Very few students actually directing their gaze at the teacher.
24:00-25:00	(Oral Q&A) Few hands are raising to bid for turns (only one per elicitation). Some students turn to face peers when they respond, but the majority do not shift their gaze when a peer speaks. The majority of students are looking at their exercise books, recording notes, or looking outward as if at nothing. Students look increasingly sleepy and disengaged.
29:00-30:00	(Oral Q&A) Extended interaction with one student. Few students follow the interaction by shifting their gaze. Most students continue to stare front at the blackboard or at their exercise books without responding to the change in speaker.
34:00-35:00	(Brief Lecture) Many students recording notes in exercise books or staring blankly at the blackboard.
39:00-40:00	(Oral Q&A) Few students are raising their hands. Many students are resting their chins or cheeks on their hands and directing their gaze indiscriminately. Few students respond to the choral elicitation.
44:00-45:00	(Lecture) Students are non-responsive. Several students have eyes closed. Many students looking out the window. Some students are directing their gaze at the teacher. Some students are flipping through their exercise books.

Lesson Transcript

ABBREVIATIONS: T=Teacher; S=Student; V=Voluntary; NV=Non-Voluntary; B=Boy; G=Girl; U=Unknown; C=Choral; SS=Same Student

T: Good morning again.

C: Good morning.

T: Okay, silence. As I told you that day that today you are going to start a new topic which is about literature. Our new topic is about literature.

T: Where is the duster. ((The teacher starts preparing his blackboard.))

T: If you enter the class please be quiet.

T: [Kiswahili] What problem do you have? Hurry up pick your chair and sit, we don't have time to waste. ((The teacher seems to be addressing one student.)) What problem do you have? There is a chair there. ((The student disregards the teacher and takes another chair.)) [English] We are waiting for you. ((Said with a sense of indignation, and no recognition of how crammed the classroom is.)) Okay silence.

T: As I told you today we are going to start our new topic which is interpreting literary works, interpreting literary works. Particularly we are going to deal with literature.

T: Hey you, what's wrong with you. ((Addressing one student.)) [Kiswahili] Sit down! One chair here come sit. ((The student approaches the chair and takes a seat)). Now everything is okay. Everyone is okay. Okay, let's start.

T: I said you are going to learn on literature. Have you ever heard of the term literature?

C: Yes

T: You have heard it. What does it mean when we say literature? Yes.

SVB: It's a work of art which use language to convey the message.

T: He say that it's a work of art which use language to convey the message. Is he correct?

C: Yes.

T: How many works of art do we have? And why you say literature is a work of art which use language to convey the message. How many works of art do we have. Yes. You raised your hand.

SVG: Oral and written literature.

T: She say that oral and written literature. Is she correct?

C: Yes.

T: Everything is yes. ((Said in an mocking tone.)) You say that literature is a work of art which use language to convey the message. I asked you a question. How many works of art do we have? ((Said aggressively)).

SVG: Four.

T: Four, okay.

T: Can you mention them?

SS: Short story, novel, poetry, and play.

T: Short story, novel, poetry, and play ((the teacher records these on the blackboard.)) She says that we have four works of art. Is she correct?

T: I can't teach you while you are standing up. [Kiswahili] You are annoying. [English] Have your chair please.

T: Okay, silence. I asked a question, how many types of works of arts do we have. You mentioned four. You mentioned them short story, novel, poetry, and a play. Is she correct? Is she correct?

((No response))

T: No she is not correct. We call them [Kiswahili] tanzu za fadhili. Which are they? Yes.

SVB: ((inaudible))

T: I am not asking types of literature. Types of works of, of different works of art. We call them Tanzu za fadili. How many do we have?

SVB: Eight.

T: Eight.

T: Can you mention them?

SS: Epic, ((inaudible)). ((The student scratches his head and sits down.))

T: These are some. Another one. ((Teacher writes the words on the blackboard)). Yes.

SVB: ((inaudible))

T: ((inaudible)) ((Teacher writes it on the blackboard.))

T: Yes

SVB: ((inaudible))

T: ((inaudible)) ((Teacher writes it on the blackboard.))

SVB: Readers.

T: Readers ((Teacher writes it on the blackboard.))

SVG: Proverbs.

T: Proverbs. ((Teacher writes it on the blackboard.))

SVB: Parables.

T: Parables ((Teacher writes it on the blackboard.))

T: Okay I need one student to tell us in short about Tanzu Za Facihi, have you read it, do you know them? Okay because it's not our concern, we are going to discuss in the next lessons. Any duster please, monitor. We are going to discuss them later. But today let's consider first on literature. When you say literature, we say that is a work of art. ((He writes it on the blackboard.)) Which use language to convey the intended message.

T: Focus on me, hey you, Hadija, focus here.

T: Is the work of art which use language to convey the intended message, where? To the society, to you and to the whole society. We use language unlike other forms of works of arts, we don't use language, there are so many but our concern is on literature, we are going to use language to convey the message to the intended society so we use literature to convey either from one generation to another or from one group of people to another group of

people…so we can use literature for us to know…We use literature to remember several things which have happened during the previous time, so we only use language in literature, to convey the message...

T: Are we together?

C: Yes.

T: We are types of literature. Types of literature. ((Teacher writes 'types of literature' on blackboard.))

T: How many types do we have? ((Many hands go up.))

T: Girls first, Sakina.

SVG: ((inaudible))

T: Is she correct?

C: No.

T: I said how many types do we have?

SVB: Two.

T: We have two types, there are two types of literature. Which are they? Yes?

SVG: Oral and written.

T: We have oral literature. ((he pauses to write this on the blackboard.)) And written literature.

T: Is she correct or not?

C: ((Mumble))

T: She is correct

C: Yes.

T: Okay thank you. We have two types of literature. The first one is oral literature and the second one is written literature. We are going to start with the first one. Oral literature. Oral literature ((he pauses to write this on the blackboard.)) Now we know the meaning. Silence. Now we know the meaning of literature, we say it's a work of art….and we said we have two types of literatures which are oral and written literature and we are going to start with oral literature.

T: When we say oral literature, what is it? I need more hands, like in types of literature.

T: Ramadhani.

SVB: This is presented through oral explanation.

T: Thank you. He said this is presented through oral explanation. Is he correct?

C: Yes. ((Most or all students provide a clear, confident reply))

T: Another one. Another definition of oral literature. Yes.

SVG: Type of literature presented by word of mouth.

T: She said that this is type of literature which presented by word of mouth.

T: Is she correct or not?

C: Yes/She is ((Fewer students reply, but a response is still reasonable audible.))

T: She is, yes good.

T: Warini

SVB: Practiced before the discovery of writings.

T: Is was practiced before the discovery of writings.

T: Is he correct? Is he correct?

C: No/Yes ((Mumbled, indicating lack of clarity.))

T: You are not sure.

T: Warini, may I ask you a question, is nowadays we have oral literature or not?

SS: We have them, but it was practiced before discovery of writings.

T: We have them but it was practiced before it was discovered before the discovery of writings. Warini is correct. Oral literature was practiced before the discovery of writings. People didn't know how to write so they used words of mouth to present their knowledge, their message to society but even after discovery of writing we use oral literature, so now we use both of them.

T: So we say oral literature…. ((Teacher starts writing the definition on the blackboard, and then reads it aloud, repeating the definition multiple times and reiterating what others have said in his own monologue))….In oral literature, you don't need to write. You only speak. You present your knowledge to the society through the words of mouth but not through writings.

T: And how many oral literature so we have or just mention examples of oral literatures we have? Yes.

SVB: Play.

T: Ha! No.

T: Uhuh. ((Indicating that another student may speak))

SVB: ((Inaudible))

T: ((Teacher writes it on the blackboard.))

SVG: Regents?

T: Regents ((Teacher writes it on the blackboard.))

SVB: Epics.

T: Epics.

SVB: Parable.

T: Okay enough. And, the second type is, type, which one, written literature. Sorry another thing to add here, as Warini said, oral literature was mainly used before discovery of written writings….

T: And another type is written literature. When we say written literature, can you tell me the meaning when you say written literature, how can we differentiate them from oral to written. Can you explain written literature, I mean the meaning. Hamisi no not you ((Seemingly because Hamisi has already responded to several questions, and the teacher wants to diversify the voices heard)). I need more hands. If you can't raise up your hand ill pick anyone of my

choice. Written literature. You say oral literature is… Yes. What about written literature. Chalinze.

SNVB: Is a type of literature which is presented through written books.

T: Thank you, you may sit. He say that is a type of literature which is presented through written books. Is he correct or not? Is he correct?

C: ((Mumble))

T: Who say yes and who say no. Who say yes. He say that is a type of literature presented through written books. My question is, only written books.

C: No.

T: You say no, what is yours, your definition. Yes you.

SVB: Written literature Is a type of literature which is presented through literary works.

T: Literary works.

SS: Story books.

T: Story books, yes thank you. Is he correct?

C: Yes.

T: Yes, another one, the last one. Now I need a girl. You are so quiet. Can you try to explain us the meaning of written literature.

((the girl stares down, refusing to look up, looking incredibly uncomfortable))

T: Uhuh ((Said in a condescending way, as if assumed, and with annoyance.))

T: Hamisi, Hamisi, just tell us, just help her.

SNVB: ((Inaudible))

T: Is a type of literature present through the written materials.

T: Is he correct?

C: Yes.

T: Someone there said is types where Hamisi said is type. Which is which. Is it type or is it types.

C: ((Mumble))

T: Is a type. You listen, is a type because we just talk about only one literature so we say is a type of literature. You want to say something?

SVB: Written literature is used after the discovery of writing.

T: Okay, unlike oral literature which was used before the discovery of writing but written literature started to be used after the discovery of writing. That is true.

T: When we say written literature, we mean is a type of literature ((Teacher starts writing on the blackboard)). Your most definitions were correct, we say is a type of literature which is presented or handed down through writings. They are presented or handed down through writings, now it can be books, magazines, newspaper…so this is one among the types of literature which is handed down through writings. The only different, the main difference here in oral we use word of mouth, we speak orally but in written…

T: You may ask. Listen to his question.

SVB: ((Warini again)) When you teaching, which kind of literature you are using?

T: He said that when you teaching which kind of literature you are using? He mean me, which kind of literature I am going to use. Teaching is not part of literature. This is not literature. I use to transmit knowledge, the knowledge that I have, to transmit to you, this is not kind of literature, are we together or have I answered your question. Or you mean when I teach literature, I mean literary books, or, when I teach literary books that is written literature. I read to you because I help you to understand content of the book but its kind of written literature. Have I answered your question?'

SS: ((inaudible))

T: Literature is not anything. When you mean transmission of knowledge from one person to another we say that is education. Can you define education? It is the transmission of knowledge so you can't say each and everything is literature, and you can transmit education from one person to another through speaking or through writings. But not everything is literature. When I teach here this is not literature except when I teach literature itself. Have I answered your question? Are you satisfactory?

SS: Yes.

T: Another question. [Kiswahili] Have you understood what we have been discussing?

C: Yes.

T: Another question. Can I move on?

C: Yes.

T: We say that written literature is a type of literature which is presented or handed down though writings. Now can you tell me some examples of written literature. ((The teacher asks this but turns to the blackboard before he can see who raises their hands)). Only few examples.

SS: Story.

T: Short story, or. Short story. Yes, the next. Enough for boys. Girls. Tamlina. Tomlina where are you. Yes.

SNVG: Novel.

T: [Kiswahili] You know. ((Girl smiles)) [English] Novel.

T: Sakina.

SVG: Play.

T: Play. And.

SVG: Poetry.

T: Poetry. Thank you. Correct. We have short story. We have novels. We have plays. And poetry. Or poems. These are all short, these are types of written literature. When we were at form II I hope you discussed about short story, your teacher taught about short story.

C: Yes.

T: You read Mabala the farmer?

C: Yes.

T: Mabala the Farmer. That is a good example of a short story. [Kiswahili] You read in form II, and you read [name] it was in written literature [English] so according to your level form

II you were required to discuss on short story and a little on poetry but in form III we discuss on novel and play, later not today. But if we have time we also discuss poetry. So these are good examples of written literature.

T: From the beginning up to there are they understood.

C: Yes.

T: Who say yes and who say no. If you say no you can raise up your hand and tell me where you can't understand. Look at your heart [Kiswahili] Raise up your hand and tell me where you can't understand. Look at your heart.

((No response))

T: Everything is okay?

C: Yes.

T: Thank you. Now. Let's discuss a little on importance of studying literature [Teacher writes on blackboard]. Yesterday I said you read Mabala the Farmer and Hawa the Bus driver.

T: Ibrahim, where were you. You just arrived, where were you. Your House. Okay. See me after this lesson. ((Said in a friendly way.))

T: Alright. So forget about Mabala the farmer and Hawa. Here we are going to deal with novels, play and poetry. Now importance of studying literature. We study literature for the purpose, purposely. So why do we study literature? Why do we study literature? Back benchers.

SVB: Because we develop our imagination.

T: To develop our imagination. When you say imagination, can you understand? [Kiswahili] You are reading, what have you written ((teacher goes and looks a student's exercise book)) [English] What do you mean when you say to develop our imagination [Kiswahili] If I don't understand. [English] I can't understand when you say imagination, can you help your fellow students so that they can understand about imagination. Anyone to help him?

SVB: ((Warini, a frequent volunteer)) ((inaudible, but lengthy reply))

T: Did you listen to him? Can you repeat, and listen to him very careful?

SS: ((Inaudible – something about the brain))

T: Now you add other things but thank you. Good. When you say imagination, you mean that your expectation. It develops our imagination. When you study literature there are new things that you can found there that you can read there or you can hear from oral literature so its there you learn new thigs and it can help you to develop your knowledge how to go about the different issues in your society so your mind have to active so you develop in your mind how to solve various problems on your own….[Kiswahili] I am doing what [English] what am I going to do and who am I so then you are going to do another thing on your own so you are going to develop your mind and practice so you are going to imagine high your expectation will be high…the main purpose is to learn how peoples were going and what are you supposed to do and what I will do. Are we together. That is number one. Is it understood?

C: Yes.

T: You. *((Answering the question of why it is important to study literature))*

SVG: It help us to get education.

T: It help us to get education. It educate people. ((He writes this on the blackboard]. All works of art are used to educate people.

T: How? Can you tell us how literature can help us to get education?

((No Response))

T: Not only her, anyone who knows. Anyone who know. Juma you look like you want to say something but your hand hanging up, you may say. There is nothing to fear.

SNVB: ((inaudible))

T: Okay you get new knowledge from there.

T: Have you read the book is it the black hermit or a nursery cries. Have you read it? Okay let me tell you in short.' ((he gives a messy summary of the moral of the story about FGM)) So that is the kind of information we get some literary books, they tell us which things we are supposed to do or which things we are not supposed to do….so through works of literary art you can learn new knowledge…

T: Is it understood?

C: Yes.

T: Another thing, another importance.

T: Mshala.

SVB: To understand different culture.

T: To understand different culture. ((teacher turns his back to the students as he records the words 'different culture' on the blackboard.)) Can you tell us in short when you say literature, help us to understand different culture. Yea its true but how can it help us to understand those several cultures, Mshala or your fellow Frank can you help your neighbour? It helps to understand different cultures, just mention them. Or, another thing, another importance?

SVB: Is a source of employment.

T: Is a source of employment for those authors. Particularly in written literature for those authors.

T: Anther one.

SVB: ((Inaudible))

T: Thank you. Good. Another.

SVB: To develop our ability and skills.

T: To develop our ability and skills. Another one. At the back.

SVB: Life skills.

T: Life skills, already mentioned. Thank you. Another.

SVB: To understand the situation.

T: To understand the situation. Thank you. Another one. Okay thank you. We are running out of time so the rest you are going to discuss the coming lesson at the beginning. The importance of literature. Are you together?

C: Yes.

T: Any problem up to there, any problem. Any comment. Any question. Have you enjoyed?

C: Yes.

T: Okay thank you. Have a good morning.

Part I: Basic Information	
1. Teacher ID: 010102C	**6. Time *start* observation**: 8:13am
2. School ID: 01	**7. Time *finish* observation**: 9:00am
3. Date: 2-2-18	**8. Total Girls**: 92
4. Subject and Specific Topic: English and Introduction to literature	**9. Total Boys**: 53
5. Period Length (Double or Single): Double	**10. Class and Stream**: Form III, All Streams

Commentary	**Video-based cue**
((Note this is the second observation and stimulated recall interview with this teacher. He has therefore already established familiarity with the technology and procedure. Once we get settled together outside on two desks brought by students, the teacher opens with a comment))	
Researcher: Do you think all the students understood the lesson? **Teacher**: Somehow ((He is looking around. He seems distracted)). **Researcher**: Just like last time, we will watch the video together- **Teacher**: When they were in Form I and II they used to discuss this topic so that's why they used to remember their previous classes. But beginning of the class was not so comfortable. I do? ((He is pointed to the tablet. I nod. He takes the tablet and asks for my assistance to fast-forward. He skips to 13 minutes into the lesson on the lesson video.))	
((Researcher initiated pause)) **Researcher**: ((I pause the video)) You have some boys in the front who are very active and seem to already know this content. **Teacher**: Yes of course because they only know definitions, but they never learnt about the importance of literature according to their syllabus. **Researcher**: Have they read any literature yet? **Teacher**: No of course not. This is Form III. **Researcher**: Learning the importance of literature before reading literature? **Teacher**: Yes it will help them when they start reading because they will focus on it because they already know the importance so it will help them to understand. ((Teacher goes to press play, but then continues to speaking)) **Teacher**: In the previous classes they read some books about literature, particularly the short stories. Like Mbala the Farmer. And Form II they read about Hawa the Bus Driver, so todays lesson they had pure knowledge on how literature is. But here we are going to add more which is novels and plays. So, I think it is meaningful to them.	Several boys near the front are frequent volunteers. They are raising their hands to respond to a question while all others in the class keep their hands down and remain silent.
((Researcher initiated pause)) **Researcher:** Why do you think only a few students put their hands up?	Teacher poses a question. Only a few students bid to respond.

Teacher: They remember more than others because they learnt those things before.
Researcher: Why do some remember more?
Teacher: It's a matter of their mind
Researcher: What do you mean?
Teacher: As I told you earlier, they are not the same. Some of them fast while others are very slow. So that is the meaning of repeating those things they learnt in previous classes but we teach them again in order to make them to learn more.

((Researcher initiated pause))
Researcher: When he gives you the correct definition, why do you ask for more
Teacher: They need to have several words to explain the same thing
Researcher: Why
Teacher: It will help them to increase their vocabulary
Researcher: We got three definitions, but they were all the same.
Teacher: Yes, that's why I pick other students whether they can use different language but they use the same thing so that is why I choose to move on because they were still correct.
Researcher: So we still do not know if they can use different words to explain the term oral literature.
((Teacher restarts video))
Teacher: Like I say. It's a matter of their mind. Some are fast. Others are very slow. I pick students to see whether they can use more language to explain but they use the same thing, they have no more. That is why I choose to move on, because they were still correct.

((Researcher initiated pause))
Researcher: Why do you write that definition on the board?
Teacher: I write to make them have notes and when you write on your own there is a lot of spelling errors so that's why I write in order to make them write correctly. We just help them to write correct words. If Kiswahili, no need to write because whatever you speak, they can write so they don't face problems in writing.
Researcher: But you use English to explain. You did not use very much Kiswahili in this lesson.
Teacher: No.
Researcher: Would using Kiswahili help some students to learn more? To understand better?
Teacher: Somehow. For Form III you can't go to Swahili. We teach in English.
Researcher: Would using Kiswahili help support the teaching and learning process?
Teacher: According to the syllabus, we use English.

((Researcher initiated pause))
Researcher: Do you think they know the meaning of the term epic or parables for example?

A student supplies the correct definition for the term oral literature.

Teacher records a definition on the blackboard.

Students are invited to mean types of oral literature.

A student mentions imagination when describing the importance

270

Teacher: No, they don't. But we have two subjects, English language and literature. For this level, this is all that is needed. Only to mention.

((Researcher initiated pause))
Researcher: Why did you ask him to explain the meaning of 'develop imagination'
Teacher: Is difficult, the term. So to evaluate. To do the assessment, does he know what he is saying.

((Researcher initiated pause))
Researcher: Do you think that girl understood?
Teacher: Yes. After teaching I asked them anyone with problem but her response was positive. Whether she didn't understand she could tell me.
Researcher: She looks shy.
Teacher: I asked the whole class have you understood and they say yes.
Researcher: You trust them a lot.
Teacher: I give them opportunity to say where they face problems. If anybody say I can't understand here, I can explain.

((End of video))

Teacher: You know what madam there are too many. The number is too large so you can't point any student to ask whether she or he can understand. You just ask the question to all. But he or she could say I can't understand. But if they say yes, you move on. But if I had only twenty students its very simple to ask everyone.
Researcher: You choose to teach A and B together, why not separate them as other teachers do.
Teacher: Number of classrooms. Not enough classrooms.
Researcher: Why not have some go outside?
Teacher: Timetable is limited.
Researcher: Why not change the timetable?
Teacher: If others are outside when you come back, there will be another lesson.
Researcher: Can you change the timetable?
Teacher: I can't
Researcher: Can you talk to headmaster?
Teacher: No academic office, but you cant change all subjects
Researcher: But the timetable is brand new. It's the start of the year. So why not talk to them about it? I noticed they haven't yet written it up on the board in the teacher office.
Teacher: I didn't know whether I would teach Form III, I didn't know. And I wasn't there to advise regarding form III class.

Researcher: How do you feel watching yourself and your students?
Teacher: Yes, I feel so comfortable because it's my first time so it's another step to learn more things. Maybe I can look myself and see where I do mistake and where I am right.

of studying literature.
I point to a student who has not spoken during the lesson and who is typically not directing her gaze at the teacher.

Researcher: Is there anything you might change about this lesson if you had to deliver it again?

Teacher: Yes. Like to make all students focus on me and to listen to me to what I am teaching because when I see video there are some student not going with me. That is one challenge.

Researcher: How could you do that?

Teacher: Emphasise them to pay attention for what is going on and maybe I talk more and I forget to ask them to focus on me and what I am saying so I could use my time several times to remind them to pay attention.

Researcher: Anything else?

Teacher: No more.

Note: The above stimulated recall interview was augmented by a telephone call on February 14, 2019. During this phone call, additional clarity was sought on several issues which emerged as relevant as a function of analysis.

1. (School culture) Expectations should be high for all students in a school.

2. (School policy) Schools should ensure all students get the support needed to attend school and learn.

3. (Inclusive Practice) Teachers should divide students by ability in order to help all students to learn.

4. (Inclusive practice) Assessments help teachers to support the needs of all students

5. (Self Efficacy) When I really try, I can teach the most struggling learners (Mimi kama mwalimu ninapojaribu kwa bidii, naweza kuwafundisha wanafunzi wengi wanaopata ugumu katika kujifunza)

6. (Outcome Expectancy) Teachers are not a powerful influence on student achievement when all factors are considered (Walimu hawana nguvu sana katika mafanikio ya mwanafunzi, yakihusishwa mambo yote katika ujifunzaji wa mawanafunzi.)

7. (Fixed Mindset) Students have a certain amount of intelligence, and teachers can't really do much to change it. (Wanafunzi wana kiwango fulani cha uwezo wa akili ambacho walimu hawawezi kukibadilisha.)

8. (Personal Responsibility – Student Achievement) I would feel personally responsible if a student of mine had very low achievement. (Binafsi ninajisikia kuwajibika mwanafunzi wangu anapokuwa na mafanikio ya chini katika taaluma.)

9. (Personal Responsibility – relational) I would feel personally responsible if a student of mine did not believe that I truly cared about him/her. (Binafsi ninajisikia kuwajibika mwanafunzi wangu anapokuwa haamini kama kweli ninamjali.)

10. (Personal Responsibility – teaching) I would feel personally responsible if a lesson I taught was not as effective for student learning as I could have possibly made it. (Binafsi ninajisikia kuwajibika somo langu ninalofundisha linapokuwa halina ubora kwa wanafunzi kujifunza kama ambavyo ningeweza kufanya.)

11. (Personal Responsibility – student motivation) I would feel personally responsible if a student of mine disliked the subject I teach. (Binafsi ninajisikia kuwajibika mwanafunzi wangu anapokuwa hapendi somo ambalo ninafundisha.)

Value Statement: Expectations should be high for all students in a school.
Agree:11
Disagree: 4

Agree: Expectations should be due to the effort made by teacher! We know teachers make many efforts, so we expect to get high results.

Disagree: I think it's not true. The expectations of the student, I don't expect the student to achieve high because when student are not responsible, we can't get the high expectations. For example, Kigoma ((a student)) have no expectations. Because herself does not responsible in studies. ((He is effectively saying that if a student is not responsible, a teacher cannot have high expectations.))

Agree: The expectations of students is to achieve. So after learning from Form I up to higher level, the most expectation is to achieve. And we expect student to achieve more after attending the learning so expectations of the students should be higher because the aim of being here is to achieve. He or she or they expect to achieve.

Disagree: When you talk about expectations, you mean performance? Or just general, environment, dealing with academic results or general?

Agree: Academic.

Disagree: Expectations should be low ((other teachers laugh)) because it will be easy for you to manage. If you have high expectations, you will fail. Many issues will confuse. So you expect low and not high.

Agree: I feel like to say that expectations should be high. If you expect high you will be the best so as to help them….to teach well so that the students perform well. Even though students they feel like they can do so even students who don't attend, they feel like they can do and pass and so they come. The expectation of the students. If they feel I can do it, they come and they do. Even when you expect high, you will work hard so as to acquire that A.

Disagree: Can you tell me you can expect to get A and get B?

Agree: Whether you do something, you expect something….. You plant the seed, you expect to get something. You come here to study you expect to study higher.

Researcher: Can you consider, is it about getting an A or a B? Or are high expectations about expecting that each student is able to improve, and that improvement may look different for different students? For some, high expectations is an A. But for others, high expectations may be consistent attendance, participation, or a D. What do you think? (Posed to all teachers)

Disagree: Some student come here to grow to marry only ((other teachers say 'no' in unison)) not for anything. In school always students differ in terms of their expectations and so you must determine about this. And expectations should be determined based on criteria, to reach your target. First of all, you must look at learning environment and also what learning materials are available. And about teaching load in the school. More than 300 student and only one teacher of maths, how can you teach? So your expectation should be normal.

Agree: That is wrong. Are you here to expect nothing? So some students come here to expect nothing?

Disagree: Different expectations.

Agree: That is the wrong perceptions. The aim of coming is to expect higher results. But if they get average, if they don't get average and get-

Agree: The expectation depend on the nature of the teachers.

Disagree: But also student of the class.

Agree: How teachers teach the student in the class.

Agree: We differ. Here we are just talking about expectation of students. As a teacher you need to guide your students to reach the higher expectation or results in whatever ways but if you come maybe some of them fail. That is another issue. But here once we invite student to come, the purpose is to achieve higher. That's why I remember last year we had programme to allow students achieving low and the form IV results of last year of course they, you can see division 0 is three, but the year before last division 0 were so many. So by doing the best you can, you can enable the student to expect.

Agree: As we expect higher, that means we have some promotions, we upgrade, improve our teaching and learning. We improve teaching methods, and other factors if we expect higher. But if we don't expect higher we will discourage our students and authorities. Therefore we will not activate our students so that they can perform.

Disagree: Fellow teachers you must remember last year, expectation we expected all to get D and they achieved so we expect low to high. We expect D and after D to C and then B but you cannot expect A! You cannot forget D.

Agree: Remember you talk about high expectation, do not rely on only As but high expectations means to have the pass score, not only to get As.

Disagree: So A is high expectation than D

Agree: Expectation should not rely on getting A but many to pass examination.

The following is a section from an interview with a District Academic Officer. Each key informant interview differed substantially as a function of the particular knowledge and expertise of the stakeholder.

Researcher: What is your role in this district?

Participant: District Academic Secondary Officer.

Researcher: You mentioned in one of our previous discussions the low pass rates in secondary schools in this district, which means that many students become marginalised within the educational system. Why do you think this is happening within this district?

Participant: First that we have problem with teachers. In terms of teachers we have two types. Shortage of teachers since 2013. An acute shortage. In 2013 government make massive recruitment of teachers and that recruitment, first massive training because large expansion of schools. Then, in 2014, recruitment made, and employment done. It is now that academic is improving if you compare percent of performance in 2014 and 2017. There is massive improvement, which shows input of teachers has had impact on performance. If you compare, there is improvement. But another reason, despite recruitment, performance not increased to match input. And the reason, there is dissatisfaction with teachers. There is shortage in areas where they are located. Expectations are not met. First problem of learning environment. Therefore, most teachers are not accommodated. Schools allocated remotely, and they must walk long distances. And, outstanding teacher claims that take a long time to be paid. And therefore, not motivated. But from the student also claim of teacher competency. They are not mastering well what they teach. That is student opinion but also observed that a teacher is there allocated to teach Kiswahili but yet poor performance and when we interview that teacher is shows he is not well qualified and therefore problem of teacher mastering subject they are teaching. But also, problem the students do not study. Due to first they do not have good area where they can study. First example, in Mkata there is mud houses which very poor in place where it's very difficult for student to have table and chair to study. And as secondary school students need to study, cramming, but they can't because no area. And this is proven because student accommodated in hostel show improvement compared to friend who at home. So if we can construct more hostel we get improvement. ((Note, this is something this district is pursuing from Camfed, and therefore its mention here may be related to my association with Camfed as an NGO supplying resources.)) But also another reason that I find for poor performance, problem of language as you have said. Same student performs well and more knowledge but the same subject from primary, with similar contents, the student performs poor, and same content when asked what this meant in Kiswahili, can give an answer. Therefore, we have problem of language. English language that starts in Form I is big challenge. Local vernacular, Kiswahili, and then there is English. Therefore, its very difficult for them to master.

Researcher: Are there any-

Participant: -And, practicals. You know that in secondary you have science subject but teaching needs practical models etcetera. We also have shortage of that. For example, in Handeni only six rooms of lab but we need 69 rooms. But only six rooms completed. But among those, only three are functioning with chemicals, lab equipment and accessories, but the rest not. Now with that shortage it means teaching science is done theoretically, not practically. So those subjects are a problem. But also arts, geography needs field study but

due to limited resources like finance, it's difficult for student to make field study. Therefore organization of subject is very difficult. Role play, discussion, but works can't be done because infrastructure not around. But also finance. But also we have training of teacher. Those teachers are trained in similar environment and therefore not well trained to be innovative.

Researcher: I am also finding that teachers may lack the knowledge and skill required to include all students. That somehow, their pedagogical knowledge in very limited. Can you explain more about that? How do you think that this influences or impacts the teaching and learning process?

Participant: Training we have problem of. You see the structure – the number of students that enter in teacher training is large but the trainers, those tutors, they are still few. Therefore they cannot make effective training of teachers in practicals. But also financial problem in college. It needs a personal effort to be innovative. To me the meaning of lab is just a space, the way a person can learn. For example, biology. I don't need a room, if I need to teach flower I try just use a flower, razor blade, I can draw, and take different fruits, but how many teachers can have that idea? If I need to study the type of soil, I don't need lab, I just need to go around and collect soils and see their properties. Therefore we have a problem of teachers in that innovation. However limited resources, we could do more if teachers are vetted, well trained, and have time.

Note: This interview was interrupted at this point and continued on the following day. The remainder of the interview, which explored questions of accountability, quality teaching, curricular coverage, teacher responsibility, etc. is available upon request.

Lesson Code	Teacher Sensitivity	Teacher Affect	Student Participation	Peer Interaction	Total	Reason for Selection
010101A	1	1	1	1	4	N/A
020301B	1	1	1	1	4	Criterion 1: Particularly non-inclusive
010102A	2	2	2	1	7	N/A
010102B	2	2	2	2	8	Criterion 3: Age cohort and use of unique pedagogical device (i.e. Choice elicitations)
010103A	2	2	1	1	6	N/A
010103B	2	2	1	1	6	N/A
010104A	1	2	1	1	5	N/A
010104B	1	2	1	2	6	N/A
010105A	2	2	2	1	5	N/A
010105B	1	2	2	1	7	Criterion 3: Age cohort and availability of in-depth stimulated recall interview
010106A	1	1	1	1	4	Criterion 1: Particularly non-inclusive
010201A	1	1	1	1	4	N/A
010201B	1	1	1	1	4	Criterion 1: Particularly non-inclusive
010202A	1	2	2	1	6	N/A
010202B	1	2	2	1	6	N/A
010203A	2	3	3	1	9	N/A
010203B	3	3	3	2	11	Criterion 1: Particularly Inclusive
010204A	1	1	1	1	4	Criterion 1: Particularly non-inclusive
010204B	1	1	2	1	5	N/A
010205A	1	1	2	2	6	N/A
010205B	1	2	2	2	7	N/A
010206A	1	2	1	2	6	N/A
010206B	1	2	1	1	5	N/A
020301A	1	2	1	1	5	N/A
020302A	2	3	3	1	9	N/A
020302B	1	2	1	1	5	N/A
020303A	2	2	2	1	7	N/A
020303B	2	2	1	1	6	N/A
020304A	1	2	1	1	5	N/A
020304B	3	3	3	2	11	Criterion 1: Particularly Inclusive
020305A	3	3	3	2	11	Criterion 1: Particularly Inclusive

020305B[44]	3	3	3	1	11	N/A
020306A	1	2	2	2	7	N/A
020306B	1	3	2	1	7	Criterion 3: Age cohort /subject area and availability of in-depth stimulated recall interview
020401A	3	2	2	1	8	Criterion 2: School and availability of in-depth stimulated recall interview
020402A	3	3	3	1	10	Criterion 2: School and Age cohort /subject area
020403A	2	1	3	1	7	N/A
020404A	1	2	2	1	6	N/A
020405A	1	2	1	1	5	N/A

---

[44] For this teacher, lesson A was prioritized because the predominant language of instruction in lesson B was Kiswahili, shifting the language required for in-depth analysis. For lesson A, English was the primary medium of instruction, though Kiswahili was utilized to a limited extent.

Note: The information below reflects the core ideas exchanged by teachers during focus group discussions (See Section 3.5.3 for additional information). For most constructs, there are more points of disagreement than points of agreement. The prevalence of disagreement is a direct result of the focus group design, which leveraged debate and disagreement as a mechanism to engage participants in meaningful dialogue and did not pressure them to reach consensus.

Focal Construct	Value Statement	Core Ideas (Points of Agreement and Disagreement)
Data used to inform analysis		
Self-efficacy	When I really try, I can teach the most struggling learners.	**Points of Agreement** • No student is 'empty headed'. All students come to school with some knowledge. • All students have the capacity to learn. • External factors (medium of instruction, class size, availability of resources) can have a substantial impact on the teaching and learning process. **Points of Disagreement** • The influence of teacher effort and methodological decisions. • The nature of students' slowness (fixed vs. incremental. A function of a student's innate capability or effort). • Teacher responsibility/'duty' for the learning of some groups of students (i.e. students who are categorised as 'slow').
Outcome expectancy	Teachers are not a powerful influence on student achievement when all factors are considered.	**Points of Agreement** • Parents are influential. • Resource-based factors are influential. **Points of Disagreement** • The definition or role of a teacher (content provider versus guide/caregiver/gardener and classrooms characterised by constructivism versus direct transmission). • The capacity of a student to teach him/herself. • The influence of student background knowledge (from the household and primary level learning) and related questions of teacher responsibility.
Personal responsibility – Student achievement	I would feel personally responsible if a student of mine had very low achievement.	**Points of Agreement** • There is a diversity of stakeholders and aspects of the environment which contribute to an individual student's achievement. **Points of Disagreement** • The relationship between a teacher's duty to teach versus ensuring students learn. • The meaning of achievement (achieving Division I versus demonstrating growth against past performance).

		• The duty to support lower and higher achievers respectively.
Personal responsibility – teaching	I would feel personally responsible if a lesson I taught was not as effective for student learning as I could have possibly made it.	**Points of Agreement** • Teaching is the primary duty of a teacher, and this can be provided during ordinary classroom or through remedial lessons. • Teachers are not responsible for the availability or lack thereof of physical resources. • Teachers are responsible for using a variety of appropriate methodologies to support the teaching process. **Points of Disagreement** • Teaching metric for success: Progression against the syllabus vs. evidence of student understanding. • The obligatory nature of remedial support.

Data omitted for this dissertation due to lack of relevance, limited data or lack of coherence within the data

Fixed mindset	Students have a certain amount of intelligence, and teachers can't really do much to change it.	**Points of Agreement** • Students come to school with variable amounts of knowledge and skill which they learned from their communities and/or primary school. **Points of Disagreement** • The relationship between knowledge and intelligence.
Inclusive practice	Teachers should divide students by ability in order to help all students to learn.	**Points of Agreement** • Support should be provided on the basis of students' needs. **Points of Disagreement** • The benefits for 'fast' learners in helping 'slow' learners. • The capacity of all students (of different capabilities) to learn within a single classroom. **Note**: Data gathered from only one of the four focus groups convened.
Personal responsibility – student motivation	I would feel personally responsible if a student of mine disliked the subject I teach.	**Points of Agreement** • The use of a variety of methodologies is the responsibility of the teacher **Points of Disagreement** • The extent to which 'liking a subject' is intrinsic or the product of teaching approach and environment • The extent to which a teacher is capable of 'changing a student's mind' **Note**: Data gathered from only two of the four focus groups convened.
Personal responsibility - relational	I would feel personally responsible if a student	**Points of Agreement** • Teachers should treat students in fair and respectful ways. • Punishment is a form of caring. • Students must feel good and comfortable to learn.

	of mine did not believe that I truly cared about him/her.	**Points of Disagreement** • The role of the teacher as guardian/care-taker and instructor and the potential relationship between the two. **Note**: Data gathered from only two of the four focus groups convened
School culture	Expectations should be high for all students in a school.	**Points of Agreement** • Expectations equate to pass marks. • Some students will invariably fail. **Points of Disagreement** • The desire to be 'real' vs. the desire to fulfil one's duty as a teacher. The influence of a variety of external factors including but not limited to parental involvement, community support, and the availability of resources.
School policy	Schools should ensure all students get the support needed to attend school and learn.	**Points of Disagreement** • The power held within a school as opposed to the national government and parents. **Note**: Data gathered from only one of the four focus groups convened.

Stakeholder	Core Ideas
Head Teachers (4)	• Teacher in-service professional development opportunities are not common. The primary mechanism for ongoing training requires a teacher to return to school for formal 'upgrading.' • Teacher support systems within schools are theoretically provided by Academic Masters; however, the way this is described by Head Teachers indicates that it is limited to a process of paper pushing (i.e. Ensuring teachers have prepared their schemes of work and lesson plans on a semi-annual basis. A tick-box-like approach.) • Teacher knowledge and skill are considered to be variable, with newer teachers entering their careers with substantially less capability than their predecessors. • Teacher metrics for success focus around the complete delivery of the syllabus and not necessarily student learning. • Head teachers consistently indicate negative views about the communities within which they are working, though the reasons for this negativity are not made explicit nor necessarily apparent. • School infrastructure and access to resources are consistently perceived to be inadequate. • School in-take procedures revolve around catchment areas. Catchment areas are typically perceived to be too large, and Head Teachers discuss the challenges associated with student travel to and from school.
Academic Masters, School (6)	• Teacher knowledge and skill are considered to be variable, although Academic Masters across all four schools are much more optimistic about teacher capacity than Head Teachers. • Teacher accountability mechanisms focus on an inspection of physical lesson plans (though not the content of them) and the complete delivery of the syllabus. • School infrastructure and access to resources as well as lack of community interest in education are considered to be the primary constraints in engaging students in classroom-based learning. • The policy stopping parental contributions is considered to be highly disruptive for schools and teachers.
LGA, District (2)	• Whole school and teacher support systems are lacking across both districts as a function of both limited human and limited financial resources. • There are several challenges to advancing inclusive and equitable goals including class size and teacher commitment. • Addressing salary-based issues is considered to be a major opportunity for change for LGAs across both districts. • There have been some teacher professional development opportunities provided through BRN (government programme) in one district, and NGOs including Camfed in the other. However, both LGAs express the need for these programmes to be more frequent and engage more teachers. • LGAs demonstrate conflicting views about the relationships between secondary schools and the communities they are meant to serve.

	• Teacher accountability is achieved through teacher attendance within both districts. In neither district are there other mechanisms more related to issues of quality. LGAs in both districts recognize the problematic nature of this limitation. • LGAs account for student retention and dropout-related challenges as a function of geographical constraints (i.e. schools are too far from the school communities they serve). Both hypothesise about non-school related factors, indicating a disconnect between student behaviour and school-based characteristics. • Laws about parental contributions have been misinterpreted. Parents can and should be contributing so that teachers can provide remedial instruction for their slow learners.
Teacher Tutor (1)	• College intake consists largely of students who achieved Division III on their Form IV leaving examination. Higher achieving students typically choose to pursue 'different' career paths. • Training consists of two years in both pedagogy and two subject areas selected by the student-teacher. • The college relies heavily on lecture and oral questioning and answering to prepare teachers. Student-teachers are taught about participatory pedagogy and learner-centred pedagogy. There is no recognition of the contradiction in preparing teachers to teach using LCP through the use of TCP. • The college aims to prepare students to employ 'psychology' in addressing student diversity within the classroom. 'Psychology' as a discipline is discussed theoretically, but no specific explanations can be provided. • Teachers are introduced to challenges of teaching students with physical abnormalities in college, however, challenges associated with teaching marginalised students or slow learners are not addressed within the college curriculum. This is identified as a shortcoming of the curriculum by the teacher tutor. • According to the teacher, student-teachers require training in what to discuss with their students (the syllabus) but not how to discuss (more related to pedagogy) – indicative of a shortcoming in the understanding of pre-service training.
Former Dean, U-DSM (1)	• Challenges to the university include the structure of the programme including class size, limited opportunity for support during practicum, limited opportunity for demonstration of different pedagogical approaches. • The relationship between perceived teacher self-efficacy and notions of authority are highlighted. The socio-cultural norm is one of gerontocracy. Therefore, in-service teachers may appear to have high levels of self-efficacy that can be better explained locally by notions of authority. • The examination system reinforces an emphasis within teaching on a single correct answer rather than more abstract ideas or learner centric instruction. As a result, there is a tendency to understand education in behaviorist terms.

Minister, MoE (1)	• The introduction of learner-centred pedagogy has not been done in a • holistic way. As a result, teacher pedagogy is 'confused'. • Teacher accountability has never extended beyond roll call and checking to ensure, through reviewing lesson plans, that the entirety of the syllabus has been covered. These requirements have been internalised by teachers and impact their approach.
Camfed Field Staff (1) – (Not relevant for analysis)	• School location and access. • School characteristics (i.e. pass rates, teacher-student ratio, drop-out rates, teacher retention).