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Understanding Local Realities of Quality Education in Kenya: pupil, parent and teacher perspectives

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ABSTRACT In 2003, UNICEF-Kenya and the Kenyan Ministry of Education introduced the 'Child Friendly Schools' initiative to encourage educational policy makers and practitioners to look for alternative ways to measure the quality of primary schools beyond pupils' test scores. In 2009, Kenyan government officials distributed the Child Friendly Schools Monitoring Toolkit (CMT) across all public primary schools, promoting it as an exercise in school self-evaluation for measuring educational quality. Senior education officials developed the CMT with 50 indicators for local stakeholders' use when measuring a school's level of child-friendliness. This study investigates the relevance of these 50 indicators to local perspectives of quality education. The study's findings suggest that the CMT's 50 indicators represent only 68% of what pupils, parents and teachers describe as factors that negatively or positively contribute to levels of child-friendliness in their schools. Using an interpretative phenomenological approach for data analysis, 33 'new' indicators for child-friendliness emerge from the participants' responses. The study compares and synthesizes these new categories with the 50 original CMT indicators by creating an 'Enhanced Child Friendly Schools Monitoring Toolkit' (ECMT) for implementation in Kenyan primary schools. The revised ECMT indicators appear to capture 93% of what pupils, parents and teachers describe as factors influencing a school's level of child-friendliness. In the end, the study's findings call for a renewed dialogue between top-down and bottom-up perspectives of quality education in determining future criteria for measuring the levels of child-friendliness across Kenyan public primary schools.

Context, Rationale and Research Aims

Context

In Kenya, the obstacles for achieving educational quality for all remain overwhelming. While the Government's 2003 policy of free primary education has led to a significant increase in pupil enrolment across the country, overall learning conditions and outcomes for children remain unsatisfactory (Onsomu et al, 2005; Duflo et al, 2010; Uwezo, 2010). Classrooms are overcrowded. Teachers are overwhelmed. Pupils are underserved. Today, only 50-60% of Kenyan pupils who enter primary schools complete their eight years of basic education and of those who finish, only half qualify for admission into secondary schools (UNICEF-Kenya, 2008). Even among the pupils who enrol, the quality of learning still remains low. In 2004, over 30% of Kenyan pupils in class 6 [1] failed to meet minimal levels of reading comprehension (Onsomu et al, 2005; UNESCO, 2011). Furthermore, regional and socio-economic factors lead to disparities in delivering quality education for all. For example, only 8% of pupils in rural north eastern Kenya have access to a mathematics textbook as compared to 44% of pupils in Nairobi (Onsomu et al, 2005). Additionally, only 5% of pupils in Kenya's private schools come from the poorest 20% of households (UWEZO, 2010). The picture is clear: quality basic education is *not* accessible for all Kenyan children.

Kenyan government officials realize they cannot afford an uneducated generation of future leaders. In 2007, the Kenyan Government announced *Kenya Vision 2030* as the country's plan to

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transform Kenya into a 'middle-income country providing a high quality of life to all its citizens by the year 2030' (Republic of Kenya, 2007). The vision for its education aims is 'to have a globally competitive quality education ... for sustainable development by 2030' (Republic of Kenya, 2007, p. 17). In order to achieve the Education for All and Millennium Development Goal targets by 2015, Kenyan education policy makers have been searching for new ideas and strategies. In a recent report prepared for the Office of the Kenyan Prime Minister, researchers make it clear that while Kenyan education officials are eager to improve the quality of education in their schools, more local and international partnerships are necessary for translating their enthusiasm into tangible results for Kenyan pupils, parents and teachers (Glennerster et al, 2010).

It is within this context that the United Nations Children's Fund (UNICEF), together with other educational stakeholders, has entered into a close collaboration with the Kenyan Ministry of Education (MoE) to localize a UNICEF global initiative, 'Child Friendly Schools' (CFS), into the Kenyan context. Based on the Convention on the Rights of the Child, the CFS concept was initially adopted by global leaders in UNICEF, Save the Children, and the World Health Organization as an educational equivalent to the 'baby-friendly hospital' initiative that improved quality standards in global health (United Nations General Assembly, 1990; UNICEF, 2009, p. 7). In 1995, UNICEF held a worldwide workshop on 'What is a child-friendly school?' from which an informal summary of 'multidimensional' rather than 'single-factor' approaches to improving educational quality emerged (UNICEF, 2009, p. 5).

The impetus for CFS was to move 'beyond pedagogic excellence and performance outcomes' and instead focus 'on the needs of the child as a whole, not just on the "school bits" for which educators traditionally felt responsible' (UNICEF, 2009, p. 7). Dr Cream Wright, the former global chief of education for UNICEF, defines the term 'Child Friendly Schools' as 'a multidimensional concept of *quality* that addresses the total needs of the child as a learner' (UNICEF, 2009, p. 4, emphasis added). At the heart of the child-friendly schools initiative, therefore, is the question of not only improving access to education, but finding ways to increase the *quality* of education that is being provided. Using UNICEF's global reach, the initiative has expanded its operations from 33 countries in 2004 to 90 countries in 2009 (UNICEF, 2009).

Among these 90 countries, Kenya is cited as one of the most successful in managing to mainstream the concept of CFS into its national education policies (UNICEF, 2009, p. 9). Fushimi (2009) suggests that a series of unique contexts and mechanisms within Kenya's education sector positively facilitated this transfer, including but not limited to active government leadership, new international funding resources, and internal dissatisfaction with the culture of high-stakes testing as the means of measuring school quality. In 2005, the MoE, in collaboration with education donors, created the Kenyan Education Sector Support Programme (KESSP) 2005-2010, which became the first national strategy specifically aimed at delivering quality and equitable education for all Kenyans (Republic of Kenya, 2005). Although CFS did not appear in the plan, Fushimi (2009) notes that the policy's holistic concern for quality education reflected the priorities of the CFS concept. As a more tangible example of CFS's reach into higher levels of Kenya's education sector, the National Deputy Director of Educational Quality Assurance and Standards hangs a large poster next to his desk that greets all his visitors with the question, 'Is your school child-friendly?' Pictured on the poster is a smiling Kenyan pupil and a half-page government logo that says, 'Supported by the Kenyan Ministry of Education'. In sum, CFS has become the face of the Kenyan Government's efforts to improve quality education throughout the country.

Since 2003, education officials in Kenya have sought numerous ways to operationalize the CFS concept into practice. Figure 1 summarizes the four main strategies and two tools that are currently being used to translate the CFS concept into practice.

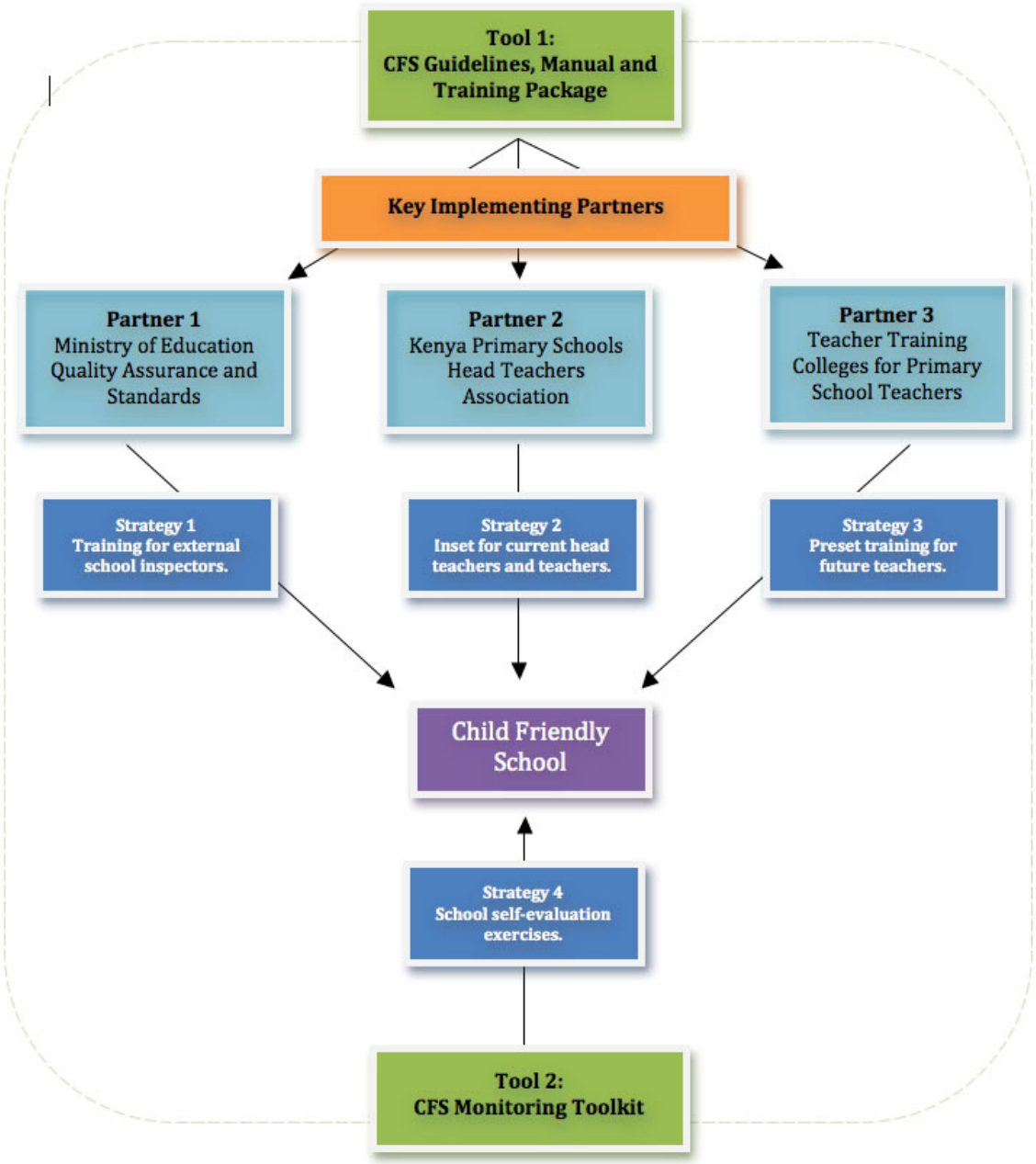

Figure 1. Overview of translating the CFS concept into practice in Kenya. Inspired by Fushimi (2009, p. 17).

The Child Friendly Schools Monitoring Tool: 50 Indicators across 5 Themes				
1	2	3	4	5
Inclusive Child-Friendly Classroom	**Safe and Protective School**	**Equity and Equality Promoting School**	**A Health and Nutrition Promoting School**	**Community Links and Partnerships**
1. School has functioning children's government which addresses problems affecting them.	13. Peace, citizenship, guidance and counselling are promoted.	22. Detailed pupil profile available (by name, age, sex, home background, other information about a child etc.).	31. Ratio of latrines for girls and boys.	42. Functional school management committee and child friendly school technical team in place.
2. Effective supervision of curriculum in place.	14. School enforces a policy on prevention of violence and corporal punishment through positive disciplining.	23. School development plan is in place addressing the child's needs holistically.	32. Toilets properly used and well maintained.	43. School management committee and child friendly school technical team equally represented by males and females.
3. Proper record keeping (administrative, academic finance, and stores).	15. Safety measures in place (i.e. fire extinguishers, fire escapes, drills, lightning rods, first aid kits, school fence.	24. Proportion of teachers trained in special education.	33. Provision of nutrition services in school (e.g. school feeding, deworming, vitamin A supplementation)	44. Linkages with community based ECD centres.
4. Percentage of boys and girls actively participating in the lessons.	16. School has environment/compound free from hazardous/risky materials/buildings.	25. Availability of disability-friendly facilities and equipment (e.g.. Ramps, toilets, braille materials, hearing aids, clearly defined paths).	34. Access to safe, clean water for drinking and washing.	45. Income generating projects are in place and effective.
5. Interactive pupil-centred methods used in teaching/facilitation and learning.	17. School has emergency preparedness and response plan and measures.	26. All out-of-school children identified in the community and efforts made to enrol and retain them in school.	35. Health, hygiene and life skills education is part of the curriculum and is regularly taught.	46. Percentage of parents participating in meetings.
6. Textbook-pupil ratio in all subjects.	18. School enforces policy on protection of girls/disadvantaged against sexual and other abuse and exploitation.	27. Girls and boys treated equally in teaching, seating, assignments, access to materials, asking questions/feedback etc.	36. School has easy access to health services/sickbay/first aid (immunization, vaccination, reasonable distance to health centre).	47. Evidence of community participation in the school development plan.
7. Availability and use of 'Teaching and Learning Using Locally Available Resources' (TALULAR) e.g.. Sticks, leaves, beans, etc.	19. School is free from addictive substances, violence and pornography.	28. Gender awareness clubs are operational in school.	37. Number of outreach activities done by school club to prevent HIV/AIDS per term.	48. 'Child-to-child' activities promoted for school community linkages.
8. Competence/ dedication of teachers.	20. School has policy against discrimination with regards to gender, cultural origin, social status, religious beliefs and other differences.	29. Instructional materials reflect and promote gender balance in roles of males versus females.	38. Number of classrooms with proper ventilation, lighting and adequate learning space for children.	49. Parents are interested in and support pupil's learning at home and discuss pupil's work with teachers.
9. Proportion of teachers who had in-service training in the last 12 months.	21. School has duly assigned personnel in charge of securing its premises, properties and those of pupils and teachers.	30. School enforces a policy on dropouts (pregnancy/truancy/child labour).	39. Appropriate use of available resources.	50. Outreach activities done by the school in the community.
10. Quality of school assessment and feedback.			40. School compound is clean and well maintained.	
11. Proportion of pupils who started class one eight years ago completing school and sitting for the KCPE.			41. Availability and use of well defined play areas with recreation time allocated on timetable (including for learners with special needs).	
12. Teacher-pupil ratio (how many pupils study with one another).				

Table I. The Child Friendly Schools Monitoring Toolkit: 50 indicators across five themes.
Source: Republic of Kenya and UNICEF (2009, reformatted by author).

The present study is mainly concerned with the CFS Monitoring Toolkit (CMT) and its relationship to local realities of quality education at the school level. MoE and UNICEF officials

promote the CMT as a tool for 'school self-evaluation to be used by *anyone* who cares about quality education in Kenya' (Fushimi, 2009, p. 16; emphasis added). The CMT measures five key concepts of CFS, as described in the Kenyan CFS guidebook (Tool 1 in the diagram), which include: (i) inclusive classrooms; (ii) equity and equality of learners; (iii) safety and protection; (iv) nutrition and health; and (v) community partnerships (UNICEF, 2009, pp. 3-5). School stakeholders are invited to use the CMT to rate their school's child-friendliness out of a total of 250 points using a 50-item questionnaire. Each of the 50 items can be scored on a scale of five points as 'Poor' (0 points), 'Unsatisfactory' (1 point), 'Satisfactory' (3 points) or 'Excellent' (5 points) (Republic of Kenya & UNICEF, 2009). These items are listed in Table I.

As a new tool for monitoring quality education in Kenya (developed in 2009), there is little documentation about how the CMT was developed or its reception by Kenyan officials and practitioners. The only information available about the CMT in the Kenyan context stems from two unpublished desktop reviews by Akihiro Fushimi (2009, 2010), a UNICEF education specialist and DPhil candidate at the University of Sussex, based in Nairobi working in the Eastern and Southern Africa Regional Office at the time of the present study. Both documents have been shared among UNICEF-Kenya education officials as a means to better understand CFS as a tool and conceptual framework for school self-evaluation in the Kenyan context. The present study treats each document as the most current insider's perspective and the only scholarly attempt to describe the CFS concept and CMT tool within the Kenyan context in theory and in practice.

Fushimi (2009) attempts to identify the origins of the CMT. In one of his interviews with a top government official, Fushimi (2009) describes the actors involved in the development of the CMT: 'a government informant proudly talked about the success of how 19 senior directors of the MoE were involved in the review of the CFS tools' (p. 22). As the principal researcher of the present study, I triangulated Fushimi's (2009) study by emailing various UNICEF-Kenya officials, KEPSHA executive officers, and current MoE officials to confirm or challenge his findings. The UNICEF-Kenya programme officer supervising CFS activities at the time of the current study, responded in an email that 'nineteen senior MoE directors were involved in the review of CFS tools, after which the directors of the semi-autonomous governmental association and provincial directors of education met for a three-day retreat in 2009 to validate the criteria for the child friendly schools monitoring toolkit' (Noor, 2011). In an interview with Joseph Karuga, national chairman of KEPSHA, I learned that 'head teachers became involved when the CFS monitoring tool was being distributed and today, all head teachers support its full content and criteria'.[2] Beyond the MoE, UNICEF and KEPSHA, the available evidence suggests that no other parties were involved in the process of creating the CMT. The question that arises is where were the voices of the intended *users* of the evaluation's criteria – the pupils, parents and teachers of Kenyan public primary schools?

Rationale

> Far too often, the critical voices of school stakeholders are absent ... thus the regimes of truth about school effectiveness are managerial and totalizing – more in line with the needs of government and policy makers, than with others closer to the everyday life of schools. (Weiner, 2002, p. 800)

Applying Weiner's insight to the development of the CMT's criteria, one may question the absence of the 'school's voice' in the tool's formation. According to Greenwood and Levin (2007), a 'more advanced form of participative evaluation is to involve participants in the process of designing *what* to evaluate from the *beginning*' (p. 190; emphasis added).

Robert Chambers (1997) contextualizes what Greenwood and Levin (2007) describe in the context of international development initiatives, arguing that there is an absence of 'lower' voices among 'upper' conversations in policy decision making. In his book *Whose Reality Counts?* Chambers (1997) describes one of the greatest challenges in international development as finding 'ways to empower others, lowers, the weak, poor and vulnerable, to express their realities and make them count' (p. 237). In the context of the present study, this would mean finding the intended *users* of the CMT (school pupils, parents and teachers) and making their local realities of

quality education count in policy decisions being made by the *makers* of the CMT (UNICEF-Kenya and the MoE).

Without input from local school stakeholders, makers of the CMT may risk forcing local school stakeholders to care about what they can measure, rather than measure what they care about. For example, when communities try to measure whether or not their school is child friendly, the CMT already provides a pre-defined set of indicators for measuring educational quality. But are these indicators a reflection of what local practitioners really care about in regard to child-friendliness, or are they the priorities defined from the top down, only? In other words, is the CMT tool that UNICEF and MoE promote as an exercise in school self-evaluation at risk of either (a) measuring the wrong priorities of child-friendly schools or (b) introducing a top-down policy initiative, that, similar to many that have gone before it, ignores local expertise on the content of the intervention (Kanbur & Squire, 2001)?

This is the impetus for the present study: to understand how the local realities of quality education, as defined by pupils, parents and teachers in Kenyan public primary schools, either complement or supplement the current set of indicators set by the CMT.

In 2009, the MoE sent a National Circular (a national policy with the force of law) to all Kenyan primary school head teachers, asking them to prioritize the CFS concept as an essential step in realizing *Kenya Vision 2030* that would help the country achieve quality education for all (Republic of Kenya, 2009). Included in this policy memo was a draft copy of the CMT, meant to be used by all school stakeholders to monitor the progress of developing child-friendly schools (Republic of Kenya, 2009). A finalized version of the draft is planned for release after incorporating feedback on the CMT's use in the field. Before studying the *methods* of how the CMT tool is being used in practice, however, policy makers should first seek feedback on the relevance and validity of the *criteria* by which the CMT proposes to measure the child-friendliness of schools. In other words, are the top-down criteria of the CMT reflective of bottom-up priorities? Or is there an opportunity for improved synthesis between these two versions of child-friendly schools in the Kenyan context?

Research Aims and Questions

With national education policy decisions on the horizon and millions of Kenyan children still left without access to quality education, this small-scale study has three main aims:

1. *To understand* the CFS monitoring tool and process of school self-evaluation within the Kenyan context and relate these insights to relevant literature in comparative international education;
2. *To discover* the often neglected voices of the hard-to-reach populations of parents, teachers and pupils in Kenyan public primary schools in order to understand what places and people within their school are negatively or positively making their schools child friendly, and why;
3. *To compare* local school stakeholders' perceptions about a school's child-friendliness and *synthesize* their perceptions with the indicators listed in the CMT to identify any 'gaps' or 'overlaps' between the two.

With these aims in mind, the study attempts to answer the following interrelated three research questions:

1. What reasons do pupils, parents and teachers in Kenyan public primary schools offer to describe the negative and positive factors that contribute to child-friendliness in their schools?
2. How do pupils, parents and teachers' perceptions of factors describing child-friendly schools complement or supplement the original set of 50 indicators of the CMT?
3. What recommendations and cautions should be made to UNICEF-Kenya and MoE officials for incorporating local school stakeholders' perceptions of child-friendly schools into a finalized version of the 2009 CMT for redistribution?

Literature and Background

Evaluating Educational Quality in Kenya

According to De Grauwe and Naidoo (2004), three key mechanisms characterize evaluation methods in educational quality: examinations, external school inspections and school self-evaluations. The study applies this three-pronged framework to describe how the CMT compares with three other current methods of evaluating quality education in Kenya. These methods include: the Kenyan Certificate of Primary Education (KCPE), the District Quality Assurance and Standards Officer (DQASO) school inspection report, and the CMT exercise in school self-evaluation (Figure 2).

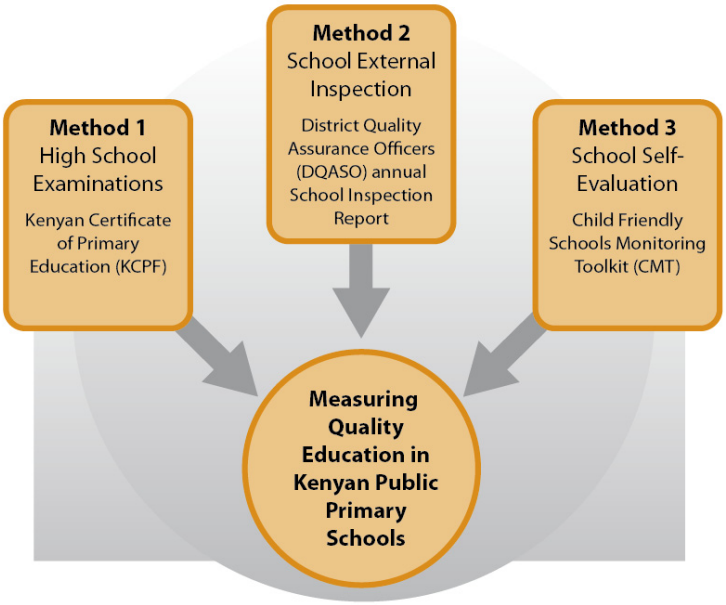

Figure 2. Three methods of evaluating quality education in Kenya.

Method 1: high-stakes testing. One of the most common indicators for measuring quality education in Kenya is a school's average score on the KCPE. The KCPE is administered at the end of every pupil's primary school career in class 8. Pupils are examined in five subjects – Mathematics, English, Social Studies, Kiswahili and Science – and can earn up to 100 points on each subject examination. While some argue that high-stakes testing positively contributes to raising quality standards and increasing overall learning achievement scores (Braun, 2004), others raise concerns about its potential to encourage schools' fixations to 'teaching to the test' and thereby failing to equip pupils with higher order reasoning and problem-solving skills (Kellaghan et al, 2009). Scholars have also shown that 'naming and shaming' based on test scores often leads to increased disparities in quality education across competing schools, teachers and pupils (Goldstein & Leckie, 2008).

Although Kenya does not participate in the Programme for International Student Assessment administered to Organization for Economic Cooperation and Development countries, and other countries worldwide, its participation in the Southern and East African Consortium for Monitoring Educational Quality (SACMEQ) encourages policy makers to continue to emphasize test scores as a means to measure educational quality in Kenya (Murimba, 2005). This national trend seems only to reinforce local obsessions over high-stakes testing (Ngware et al, 2010). Other scholars argue, however, that examination rankings alone are limited in their scope of measuring educational outcomes in terms of quality (McNamara & O'Hara, 2008). In the Kenyan context, for example, when a pupil misses the passing mark of 250 points, his/her educational career ends at the age of 12 or 13 (Ngware et al, 2010). According to UNICEF-Kenya and MoE officials, the CFS model is seen

as an alternative to this method of evaluation and is designed to 'transform the current exam-oriented system' into one that is more 'inclusive for holistic student development' during and after a pupil's primary school career (Fushimi, 2009, p. 14). It becomes difficult to foresee, though, how a national education system so deeply entrenched in high-stakes testing can begin to measure its quality in terms of child-friendliness rather than end-of-year subject scores.

Method 2: external school inspection. In addition to a school's KCPE scores, the District Quality Assurance and Standards Officer (DQASO) school inspection report provides another measure of a school's level of quality in Kenya. Janssens and Van Amelsvoort (2008) describe the process of external school inspection as an independent review of how well a school abides by national, legislative standards of quality education while also accommodating local needs of parents and students. Using a 29-item government questionnaire, the Kenyan inspection officer visits all schools within his/her district for an average of four hours each and creates a report of his/her findings over the next three months (Republic of Kenya, 2010). In many districts, however, there is only one DQASO per 90 or more schools, thereby making the goal of visiting every school nearly impossible to achieve.[3]

When the DQASO does manage to visit a school, he/she has two main functions: to 'judge, control, [and] audit' and to 'support, advise, [and] guide' (Fushimi, 2010, p. 15).

While external school inspections are seen as necessary processes for ensuring accountability and comparability across schools in a national context (Nevo, 1995), local school practitioners often find them insulting and demeaning (De Grauwe & Naidoo, 2004). One Kenyan head teacher reported, 'They might as well do their assessment from the car'.[4] This seems to mirror the findings of Hall and Noyes (2009) that internal school actors often do not find external school inspections useful or accurate. Fushimi (2010) describes five main deficiencies of external school inspection within the Kenyan context, noting that DQASO inspections are often perceived as 'too expensive, superficial, authoritarian, de-professionalizing and ineffective' (p. 29). This internal dissatisfaction resembles what Phillips and Ochs (2004) refer to as a localized 'impulse' for looking outwards for alternative means of assessing quality (p. 779). The CMT provides a promising new method in this regard, and seeks to address one of the greatest concerns of external school inspection: the exclusion of practitioners' voices in the process of evaluating school quality on the ground (MacBeath, 2008).

Method 3: school self-evaluation vs. school self-inspection. According to Fushimi (2009), 'school self-evaluation, through the CFS monitoring tool, is perhaps the *key* ingredient to the process of mainstreaming CFS in Kenya' (Fushimi, 2009, p. 18; emphasis added). From this point of view, the CFS framework encourages schools to become more focused on self-improvement, accountability and greater transparency from within rather than the impetus coming from outside the school (Bubb et al, 2007).

Some studies suggest ways that 'school self-evaluations' and 'external school inspections' could actually merge together (Nevo, 2001; MacBeath & McGlynn, 2002; Fushimi, 2010). Yet others argue that school self-evaluation would become counterproductive if external assessors were seen controlling the process and criteria of assessment from the outside (Nuttal, 1981; Janssens & Amelsvoort, 2008). Building on previous work by Foucault (1977), Perryman (2007) explains this contradiction by using Bentham's 'panopticon' prison metaphor to describe the invisible, but omnipresent, eye of the school inspector on local school practitioners in school self-inspections:

> In the panopticon, [a model prison], individual cells [are] arranged around a central tower. By use of backlighting, a supervisor could observe every cell without the inmate knowing if they were being watched or not ... thus institutional authority is invisible, but the objects of power, which in a school are the teachers, and pupils, are visible and supervised. (p. 176)

Is this the case for the CMT in the CFS framework? Are UNICEF-Kenya and MoE officials promoting school self-evaluation, when in fact the 50 indicators of the CMT are top-down versions of an exercise in school self-inspection?

MacBeath (2008) argues that the criteria used for school self-evaluations should ultimately be left up to the schools and that they should meet the needs and priorities of local contexts.

Kyriakides and Campbell (2004), however, warn that gathering community input for building evaluation tools carries a significant 'disadvantage of being labor intensive and time consuming' (p. 28). As a result, 'local priorities are rarely reflected in self-assessment exercises and externally driven surveys' in education (UNICEF, 2009, p. 20).

In comparison to the KCPE and DQASO, the CMT does, in fact, offer an alternative method for evaluation. But questions remain as to the degree to which the CMT is an authentic example of how UNICEF-Kenya officers promote the tool as an exercise in school self-evaluation rather than as a form of school self-inspection. Beyond its method, what does the CMT propose to measure? To answer this question, this study now reviews the frameworks of school effectiveness and school improvement research to better understand the possible rationale behind constructing the criteria of the original CMT.

Creating Criteria for Educational Quality: school effectiveness and school improvement research

This section focuses on only a handful of scholars traditionally associated with two fields of study – school effectiveness research (SER) and school improvement research (SIR) – and their different notions of describing educational quality related to the 50 indicators of the CMT. In particular, this section reviews Fushimi's (2009) analysis of the 50 CMT indicators through the lens of one of the most widely cited models in measuring school quality: Heneveld and Craig's (1996) conceptual framework for school effectiveness. This framework groups school elements into four categories: context variables, input variables, process variables, and outcome variables, or 'CIPO', for short (Fushimi, 2009, p. 7). This conceptual framework is later used by the present study for comparing and synthesizing local realities of CFS with the CMT's set of indicators. Therefore, an understanding of CIPO's origins is critical to this study's design and method of analysis.

SER emerged after Coleman's (1966) report claiming that schools make no difference in levelling social inequities for pupils. Since the report, however, scholars have argued that schools do, in fact, make a difference in this regard (Baker et al, 2002; Glewwe & Kremer, 2006; Zhang, 2006). The SER approach looks at the effect of inputs on educational outcomes, adopting a conceptual framework that has been described as 'education production function' (Ladd & Walsh, 2002, p. 3). One of the most recent debates on SER has resulted in the call to replace the United Nations' MDGs (Millennium Development Goals) with MLGs (Millennium Learning Goals), emphasizing how examination results are actually seen as the most meaningful outcome to measure the effect of financial contributions to global education efforts (Black & White, 2004). Scholars have criticized the SER approach as promoting a set of indicators that are just too narrow in theory and suggest SIR as a more holistic approach (Teddlie & Reynolds, 2001).

SIR, as defined by Teddlie and Reynolds (2001), 'examines the process whereby schools can improve their quality by utilizing increasingly sophisticated models that go beyond simple applications of SER to more sophisticated multiple layer models' (p. 3). In other words, there is less emphasis on quantifiable outcomes as they relate to inputs, and more on understanding the complicated teaching and learning *processes* and *contexts* involved in educational quality reform. As Fushimi (2010) writes, factors of SIR often enhance outcomes 'that are broader than mere academic achievement', such as citizenship, entrepreneurship and leadership (p. 8). In a way, the CFS framework and the CMT indicators may better be understood within this framework since it tries to place less emphasis on test scores and more emphasis on teaching and learning.

The creators of a wide range of models promoted by multiple development agencies have tried to combine elements from both research camps and create what Hopkins and Reynolds (2001) describe as a 'third age' for school improvement research. Some of the most frequently cited frameworks for understanding 'what' quality education means in practice include the following: Heneveld and Craig's (1996) CIPO model; Delors et al's (1996) definition of educational quality as 'learning to know', 'learning to do', 'learning together' and 'learning to be'; Lockheed and Verspoor's (1991) framework for improving primary schools in the developing world; and UNICEF's (2009) global CFS framework for advocating child-friendliness (Fushimi, 2010). Although many others exist, this short list is illustrative of the variety of ways in which scholars and policy makers have tried to infuse both SER and SIR research into frameworks of quality education on global and local levels.

For this study's purpose of comparing and synthesizing local realities of quality education with CMT indicators, I build on Fushimi's (2009) initial analysis of the CMT, using Heneveld and Craig's (1996) CIPO model. To visualize the CIPO framework in relation to the CMT questions, Fushimi's (2009) diagram is recreated for reference in Figure 3.

Upon closer inspection, however, Fushimi's (2009) mapping of the CMT indicators only accounts for 47 of the 50 items listed in the CMT. The missing three (quality of teacher feedback, emergency preparedness of the school, and proper maintenance of toilets) could have been categorized either as 'input' or 'process' school variables as illustrated in Figure 3, both of which will be discussed later. While Bernard (1999) praises the CFS model as a comprehensive approach to defining educational quality, one begins to see that when operationalized in a country-specific monitoring toolkit such as the CMT, the holistic concept of CFS may not be so holistic after all; for example, the CMT seems to place more emphasis on learning processes and inputs rather than outcomes and contexts.

Chabbott's (2004) global desk review of CFS seems to agree with Fushimi's (2009) assessment that SER and SIR research camps did, in fact, have some influence over the framing of the CFS concept. In Kenya's context, Fushimi's (2009) analysis of the 50 indicators through the lens of the CIPO model also suggests that senior Kenyan policy makers had some prior knowledge of SER when designing the indicators for the CMT. The question remains, where is the presence of bottom-up knowledge in influencing the process of creating indicators for measuring a school's level of quality in Kenya? And what value would these perspectives add in the formation of policy, specifically within the context of the CMT's criteria for child-friendliness? The study now addresses the origins, evolution and current applications of the participatory learning and action research approach, which provides an important background to this study's choice of research methodology to answer its underlying questions.

The Participatory Learning and Action Research Approach: risks and benefits

In their discussion of developing criteria for school self-evaluations, Kyriakides and Campbell (2004) call for a greater need to include the views of local school practitioners in the process. This section is neither a review of the larger debate between power and knowledge in the philosophical context of educational evaluation, nor a debate about educational evaluation theory (e.g. Weiss, 1997; Gaventa & Cornwell, 2008). Rather, the limited review is more focused on the potential benefits and risks of utilizing the participatory learning and action (PLA) research approach in generating a new set of knowledge at the school level about local realities in regard to CFS. This third and last part of the literature review has three sections. These include: understanding the historical roots of PLA and defining the distinguishing characteristics of the PLA model as they relate to the present study's methods; analyzing recent criticisms of the validity of the approach; and reviewing studies where the PLA approach has been successful in informing policy decisions within the Kenyan context.

The evolution of PLA. The participatory learning and action research approach assumes that communities have more knowledge about their social problems than policy makers give them credit for (Chambers, 1994). Based on a desktop review of failed projects in international development, Kanbur and Squire (2001) argue that 'the poor often have better knowledge of their situation and their needs [than policy makers], and can therefore better contribute to the design of policies and projects intended to improve their lots' (p. 204). The PLA approach is one way of cultivating this localized type of knowledge. However, Chambers (2007) contends that most PLA practitioners are unaware of the historical roots that inform modern-day PLA methodologies. The following discussion attempts to contextualize the study's choice of using the PLA approach within a more complicated historical framework, while realizing the limited scope of this review.[5]

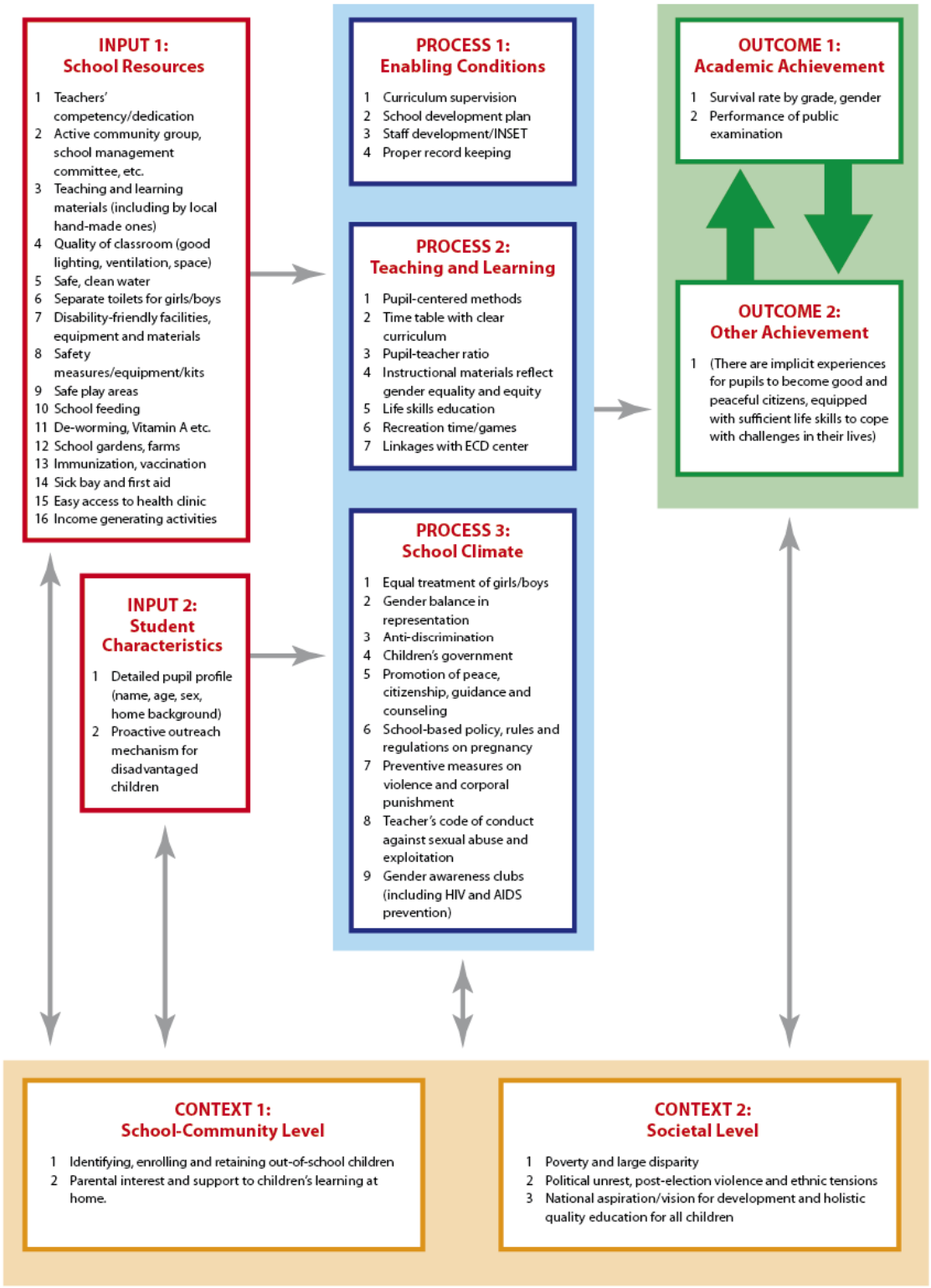

Figure 3. Mapping the CFS indicators within Heneveld and Craig's (1996) Conceptual Framework for School Effectiveness. Source: Fushimi (2009, p. 8, reformatted by author).

To begin, 'PLA' has become a catch-all phrase for a wide range of similar approaches including participatory rural appraisal (PRA), rapid rural appraisal (RRA), participatory learning methods (PALM), participatory action research (PAR), and many others. The connecting theme of these approaches focuses on the full participation of people in the process of learning about their needs and recognizing opportunities for action-oriented solutions (Milligan et al, 2011). Chambers (1997) explains that the PLA method originates from prior lessons learned from the rural rapid appraisal (RRA) movement whose defining characteristics emerged from the *Proceedings of the International Conference* held at Khon Keen in Thailand. Some distinguishing methodological characteristics of RRA include:

(i) a reversal of learning where there was a need to learn from local people rather than policy makers;
(ii) learning rapidly and progressively through innovative, cross-checking measures;
(iii) offsetting biases, especially those of development tourism, by relaxing, not rushing, listening, not probing, and seeking out those who are marginalized;
(iv) optimizing trade-offs relating the cost of learning to usefulness;
(v) triangulating meaningful learning from several types of information sets;
(vi) complexity and diversity seeking variability rather than averages (Chambers, 1997, p. 157).

Building on lessons learned from the RRA movement, PAR and PRA methods began to develop in the mid 1990s. Some additional principles from PAR methods that emerged were complementary to the RRA approach:

(i) 'handing over the stick' to the people to facilitate investigation and analysis, reinforcing this idea and notion that 'they' can do it';
(ii) self-critical awareness and willingness to 'fail forwards' in attempts to gather information from the community;
(iii) adopt personal responsibility for the information being gathered;
(iv) share the information between local people and others responsibly (Chambers, 1997, p. 157).

PLA now boasts a global professional network of activities and practitioners across more than 130 countries (Guijt et al, 1998). With regard to 'core methodological principles', Chambers (2007) describes how PLA methods use a variety of 'visual and tangible methods that are intended to reverse power relations in forming new knowledge' (p. 21). In other words, the PLA approach is often characterized as a means to enable neglected voices to produce new knowledge in policy decision making processes by using their *own* concepts and ways of understanding their social realities (Chambers, 2007). In sum, PLA methods are often local, accessible and cost-effective methods for collecting multiple perspectives from people who would have otherwise been excluded. It is important to note, however, that the application of PLA methods should not be viewed solely as an option for the poor, as Levin and Greenwood (2008) describe in their study of applying participatory action research in transforming higher education institutions into better learning communities. However, for the purposes of this study, the focus of using the PLA method will remain at the 'lower' level as described by Chambers (1997) and within the context of the lower-level actors in Kenya's education system: pupils, parents and teachers.

PLA strengths and weaknesses. One of the greatest strengths of the PLA approach is that research experts are 'on tap, not on top' in the production of new local knowledge (Gibson, 1995, p. 41). The PLA approach challenges traditional power structures and seeks what some would call 'different voices and versions' of the truth (Gaventa & Cornwall, 2008, p. 179). PLA practitioners often share the view that power is 'reinforced in the dominant positivist knowledge production system' (Gaventa & Cornwall, 2008, p. 178). Chambers (2007) argues that one of the greatest values of the PLA approach is a 'paradigmatic shift from things to people, from top-down to bottom-up, from standard to diverse, from control to empowerment' (p. 26). This holds particular significance in understanding the MoE and UNICEF's desire for feedback on the draft CMT before its final version is released. Using Chambers (1997) as a lens, one could argue that MoE and UNICEF officials have an opportunity to engage in 'responsible disempowerment' by 'stepping down, handing over the stick, facilitating ... and enabling others to express, analyze, and act on their [own] diverse realities' as a means to influence how quality education is evaluated within a local context (p. 236-237). For the study's purpose, these 'different voices' are defined as those of pupils, parents and teachers

within Kenyan public primary schools who may have a different perception of quality from that which is being promoted through the CMT.

However, many commentators have raised criticisms about the validity and authenticity of the PLA approach in cultivating these 'different voices' in the context of development (Cooke & Kothari, 2001). Neef (2003) provides a particularly useful summary of recent critiques, highlighting five main limitations of the PLA approach. First, the PLA methods often 'lack scientific rigor' in applying a wide range of undefined methodologies that often undermine the validity and reliability of data collected (p. 490). Second, the PLA approach 'ignores the inherent heterogeneity of groups in participatory activities', often failing to recognize local power dynamics even within a single group and assuming that the data results reflect an egalitarian set of local realities, when in fact they may represent the voices of the elite within the local community (i.e. chiefs, head teachers, politicians) (p. 492). Third, PLA approaches may introduce a 'tyranny of techniques', in that 'handing over of the stick' may actually translate into placing participants in a more controlled scenario for study rather than a genuine position of freedom (p.493). Fourth, PLA methods often 'underestimate the opportunity costs' for participants, who take time to engage in activities such as group discussions, mapping, and transect walks (p. 493). Fifth, the application of the PLA approach to policy making fundamentally 'complicates the constructivist value of PLA' by claiming to generate authentic knowledge from the ground, while simultaneously 'impos[ing] a positivist approach' in the analysis process by using local knowledge to create policy solutions *for* communities rather than *with* them (p. 493; emphasis added). Greenwood and Levin (2007) also warn how PLA methods are often exploited by large institutions to maintain the status quo and promote their own agendas in the name of 'participatory learning'. For example, the World Bank's introduction of 'poverty consultations' in the form of 'Poverty Reduction Strategy Proposals' has been criticized as involving token representatives and being fraught with questions about the authenticity and validity of their findings (Morrison & Singer, 2007).

With these criticisms in mind, the next section examines how PLA methods have been used successfully in applying local knowledge to policy decision making within the Kenyan context.

PLA and policy decisions. Chambers (1997, 2007) and Thompson et al (1996) each provide an array of case studies where knowledge, generated by the PLA approach, has led to positive policy change in international development. The online journal, *Participatory Learning and Action Notes,* also describes a wide variety of projects, practitioners, and settings where PLA methods have contributed to significant national policy in global development. Within the Kenyan context, one of the highest-profile and recent applications of the PLA approach to new public policy has been through the Community Led Total Sanitation (CLTS) initiative in the health sector (Kar & Chambers, 2008). While the present study is more concerned with how PLA methods can be used to inform the development of evaluative criteria for measuring educational quality, the CLTS case study provides a culturally relevant example of how PLA methods have been operationalized within the Kenyan context to generate new, local knowledge to influence top-down decision making.

Briefly, the CLTS method has been described as simply applying a series of PLA methods such as participatory mapping, transect walks, and 'shit hunts' to generate community members' awareness of the danger of poor sanitation as it relates to food and faecal routes. During each CLTS intervention at the village level, new knowledge of how to build locally affordable and sustainable latrines emerges from participants (Kar & Chambers, 2008). Since the introduction of CLTS in 2007, the number of latrines in CLTS target areas has not only increased from a baseline of 300 to 4550 in 2009, but has also led to national policy changes (Bongartz et al, 2010). In 2011, Kamal Kar, the founder of CLTS, visited Kenya to meet with the Kenyan Minister of Public Health and Sanitation to implement the CLTS programme nationwide. In an interview, Kar responds to a question asking about the value of using PLA methods in the context of academic research by saying that 'community members should not be seen as passive, but rather active participants in any research question'.[6] Together with the CLTS methodology, Kar reveals the potential for using PLA methods to inform policy development from the bottom up rather than the top down.

Through this example alone, one begins to realize that the 'boundaries between citizens and experts become more fluid and hybrids emerge' (Leach & Scoones, 2007, p. 19). While the original emphasis for building latrines had been based on top-down expertise, the newly generated bottom-

up knowledge of how and where to build more sustainable latrines proved to be more useful for national policy development. The present study is not a discussion of how the PLA approach can and should change public policy in a general sense. Rather, the study remains specific in its scope, aiming to use the PLA method to discover new, local knowledge from 'lower-level perspectives' in Kenya's education system (Chambers, 1997).

Methods

The present study utilized an explorative, qualitative set of research methods within the PLA research framework. Storey (2007) argues that 'qualitative methods have a number of advantages over quantitative methods' by allowing researchers to focus on complex topics 'concerned with meaning, sense-making, and the subjective experience'; quite appropriate for studying issues of child-friendliness in schools (p. 51). This section outlines five aspects of the study's methodology: gaining access, recruiting research assistants, choosing pilot schools, designing focus group discussion questions and exercises and selecting the nature of the sample.

Gaining Access, Recruitment of Research Assistants, and Sampling

Prior to the study, I had volunteered in a rural village in south-west Kenya for four years of work in education where I developed extensive linguistic and cultural competencies necessary to approaching the present study's research aims and questions. In 2011, I was accepted as a UNICEF-Kenya research intern from May to July and invited to move temporarily from the University of Oxford to Kenya to design and implement my study related to the CFS initiative. As a UNICEF-Kenya research intern, I benefited from inside access to top-level government officials in the MoE, including, among others, the deputy director of the Quality Assurance and Standards office, the official host of the CFS programme within the MoE. Furthermore, I held meetings with all UNICEF-Kenya personnel working on the CFS initiative to learn the most current information about its progress and challenges.

I also received a UNICEF vehicle and driver for four weeks of travel, covering more than 3000 km in less than four weeks (Appendix A). All elements of the research design, analyses, and authorship of findings were done solely by me and do not represent any of the supporting institutions' views, policies, or opinions.

Having learned the Luo tribal language from my previous volunteer work in Kenya, I used my language skills throughout the study, but recruited Swahili translators to conduct the empirical research in other regions of the country.[7] I consulted Daniel Gakunga, a Professor within the Comparative International Education Department at Nairobi University, for advice about how to recruit three Kenyan volunteer research assistants (hereafter referred to as RAs) for the study. I ultimately selected three RAs, two males and one female, all with university degrees and previous experience in social science field research in Kenya.

The present study used a stratified sampling procedure to select 16 high and low performing public primary schools from rural and urban districts. Five pilot schools were selected through purposive sampling beyond the study's official sample and were not used in the study's findings. According to Breakwell (2006), when considering a study's sample size, one should move beyond numbers of participants, and instead focus on ways to learn from participants exhibiting features important to the study's questions. Pupils, parents and teachers were selected as 'subject matter experts' with regard to defining local realities in quality education. Head teachers were not selected because of their role (through KEPSHA) at the national level in designing the original CMT. A random sampling procedure was followed to select 16 schools from three levels: national, district and school.

Pilot Schools

Before the official start of the study, I led the RAs in a two-week, on-the-ground training in PLA methods and research ethics in five pilot schools. During this time, I employed Brislin's (1970) framework used for back-translation techniques to test for construct validity and inter-reliability

among RAs and focus group discussion questions. In addition, I tested for what Jones et al (2001) describe as cultural and functional equivalencies, especially with regard to introducing the concept of 'child-friendly schools'. RAs explained 'child-friendly schools' using the same definition that was published in the introductory text of the 2009 CFS monitoring toolkit. Three significant adjustments to the study's design were made from lessons learned from the pilot schools. First, the sequencing and wording of the focus group discussions (hereafter referred to as FGDs) were changed to increase answerability, relevance and comprehension levels by research participants (Gorard, 2001). Second, we began conducting pre-visits to each school to allow school administrators days, rather than hours, to organize research participants. Third, I began to keep a research diary to 'reflect on the way research was being carried out to understand how the process of doing research shaped its outcomes' (Hardy et al, 2001, p. 533).

Focus Group Discussions, Mapping and T-Tables

Within each FGD I applied methods informed by the PLA research framework (Chambers, 1997). In addition, I applied lessons learned from Hennink's (2010) recommendations for conducting research using international FGDs. In each of the study's FGDs, there were a maximum of six participants. This size was modelled after Krueger and Casey's (2000) recommendation that the 'ideal size for non-commercial topics for FGDs is between six and eight participants' in order for all participants to equally contribute to the conversation (p. 73). After an introductory meeting at each school, the RAs guided participants into three separate locations in the school for the FGDs. Hennink (2010) notes that FGD participants are more likely to contribute when they know that their privacy is ensured (p. 217). Special arrangements were made not to have the FGDs in areas where other school stakeholders or other FGD groups could eavesdrop or interrupt the proceedings.

Each FGD involved two participatory activities, thirteen sets of instructions for the RAs to follow, and eight FGD discussion questions (hereafter referred to as DQs). The two parts and eight FGD questions are listed in Figure 4.

Summary of Focus Group Discussion Steps and Questions	
Part/DQ	Instruction or Question Asked by the RA
Part 1	**As a group, please make a drawing of your school with the markers and paper provided.**
DQ 1	What items on your map make your school child friendly?
DQ 2	What items on your map make your school NOT child friendly?
DQ 3	Why do you think these items make your school child friendly?
DQ 4	Why do you think these items make your school NOT child friendly?
Part 2	**As a group, make a T-Table with two columns. In Column 'F' for 'Friendly' list all the people who make your school child friendly. In Column 'U', for 'Unfriendly', list all the people who make your school not child friendly.**
DQ 5:	Who on your T-Table makes your school child friendly?
DQ 6:	Who on your T-Table makes your school NOT child friendly?
DQ 7:	Why do the people in the 'F' column make your school child friendly?
DQ 8:	Why do people in the 'U' column make your school NOT child friendly?

Figure 4. FGD two main parts and eight questions.

Each FGD group made a map of their school and identified what elements on the map they believed made their school child friendly or not and then provided reasons for their responses. Second, they made a T-table (pictured in Figure 5) with two columns labelled 'U' for 'child-unfriendly' and 'F' for 'child-friendly', on which they were asked to list all the people in their school who they perceived made their school child friendly or not child friendly and the reasons why they thought this.

Each RA recorded the participants' responses in a field notebook. The RAs did not interpret the maps as drawn; instead, they asked participants to explain items on their maps before recording their responses. For example, when a pupil drew a box on a map, the RA did not independently interpret it as a 'classroom'. Rather he/she waited for the pupil to point to the map and describe what he/she had drawn. This was done to increase the validity of the results gathered. All written responses were read aloud by the RA at the end of the FGD to allow for additions or corrections by the participants (Hennink, 2010). A computer-generated representation of the PLA methods of making 'school maps' and 'T-Tables' is presented for reference in Figure 5.

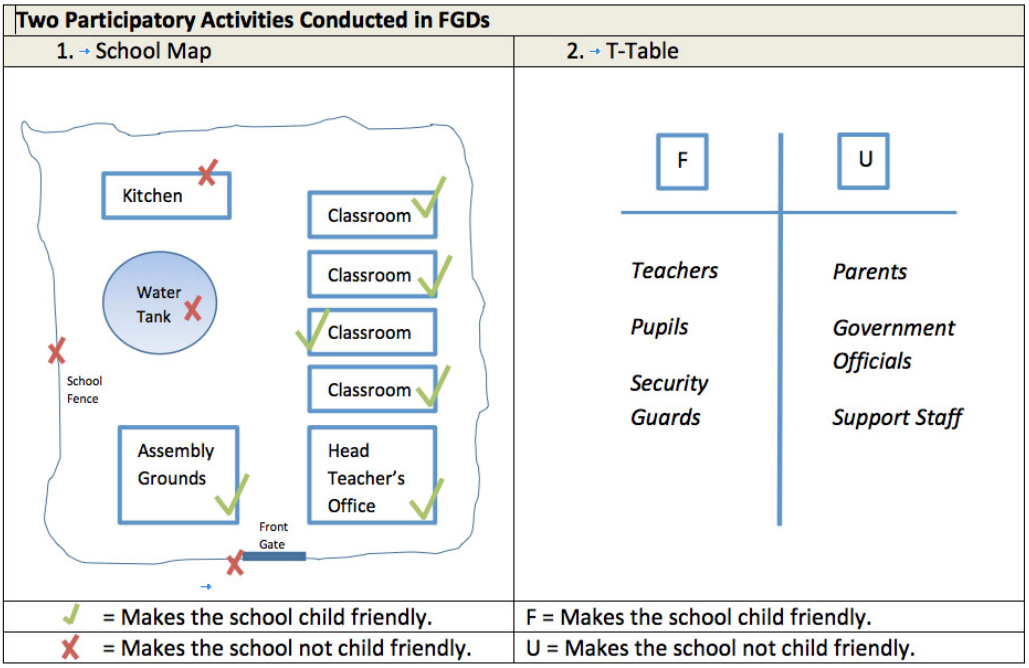

Figure 5. Example of participatory methods used in the research focus group discussions.

Each FGD lasted for approximately 1 hour and 45 minutes. A digital photograph was taken of each map, which was stored on my computer. All T-tables were copied into RA field notes and then destroyed. RAs edited their field notes for penmanship and any Swahili words that needed further translation into English before submitting these to me at the end of the four weeks of fieldwork.

Nature of the Sample

Data were collected from 48 FGDs across 16 public primary schools in rural and urban Kenya. All schools that were pre-selected for the study participated. Of the randomly selected schools, 15 were mixed boys and girls, four had boarding facilities, and two were considered 'special education schools' with disabled pupil populations. Nine were considered 'large schools', five were 'medium' schools, and two were 'small' schools (see Table II).

Characteristics of 16 sampled Kenyan public primary schools

School ID #	Rural/ urban	High/lower performing*	KCPE score	Mixed**/ single sex	Boarding/ day/both***	School pupil population****
1	Rural	High	327.96	Mixed	Day	Large
2	Rural	High	256.15	Mixed	Both	Large
3	Rural	Low	234.13	Girls	Both	Large
4	Rural	Low	204.17	Mixed	Day	Small
5 #	Rural	Low	161.92	Mixed	Both	Medium
6	Rural	Low	231.00	Mixed	Day	Small
7	Rural	High	271.56	Mixed	Day	Large
8	Rural	High	287.59	Mixed	Day	Large

9	Urban	Low	168.16	Mixed	Day	Large
10	Urban	High	300.88	Mixed	Day	Large
11	Urban	High	280.47	Mixed	Day	Large
12	Urban	High	280.63	Mixed	Day	Medium
13	Urban	Low	158.13	Mixed	Day	Medium
14	Urban	Low	154.70	Mixed	Day	Medium
15 ^	Urban	Low	151.49	Mixed	Both	Medium
16	Urban	High	310.22	Mixed	Day	Large

*High scoring school' is defined as having an average KCPE score of 250 or above in 2010 examinations.
**Mixed' is defined as a school enrolling both girls and boys.
***Boarding' is defined as a school that has pupils staying overnight; 'Day' has pupils daytime only; 'Both' has pupils in daytime and some that stay overnight.
****Large' is defined as more than 1500 pupils; 'Medium' has 800-1499; 'Small' has 1-799 pupils as per class register 2010-11.
#School was a public school designated for pupils with hearing disabilities.
^School was a public school designated for pupils with mental and physical disabilities.

Table II. Nature of the sample by school.

In School 4, there were only four teachers employed, forcing the FGD to have four rather than six teachers. In School 6, one teacher missed the FGD due to a personal emergency. In total, the study had a 99% participation rate (see Table III and Figure 6).

Nature of Participants by School Role			
	Actual	Expected	% Participation
Pupils	96	96	100%
Parents	96	96	100%
Teachers	93	96	97%
Total	285	288	99%

Table III. Nature of the sample by school role.

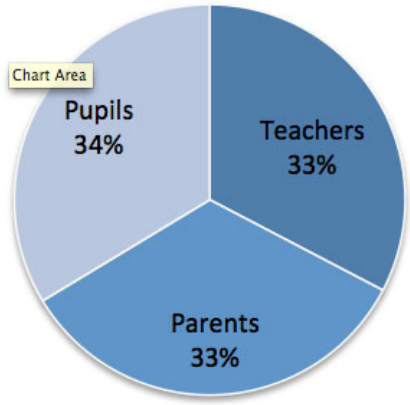

Figure 6. Nature of the sample by school role.

Analysing participation levels by gender, 42% of the teacher participants were male and 58% were female; 48% of the parents were male and 52% were female; and 52% of the pupils were male, while 48% were female. Overall, 47% of all FGD participants were male and 53% female (see Table IV and Figure 7).

Nature of Participants by Gender		
	Male	Female
Teachers	42%	58%
Parents	48%	52%
Pupils	52%	48%

Table IV. Nature of the sample by gender.

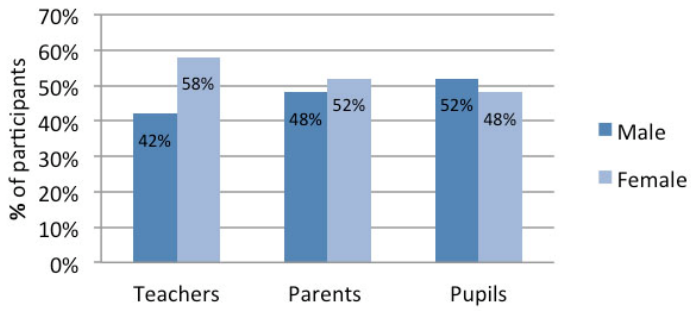

Figure 7. Nature of the sample by gender.

Qualitative Results and Analysis

This section is organized into three parts. The first part presents the total number of responses collected from the FGDs. In the second part, I provide an explanation of the method used to code the data points collected from the field notebooks. The third part presents key findings from the data in both narrative and visual formats. It is important to note that each school was assigned a number from 1 to 16 for the study. Every focus group was given a letter to correspond with its participant type (P for pupils, G for parents/guardians, and T for teachers). Data labelled as '1P' represents data gathered from the participants in the pupil FGD hosted at school 1.

Focus Group Discussion Results

In total, the study collected 2848 unique responses from research participants' discussions during the two activities and eight DQs across all 48 FGDs.

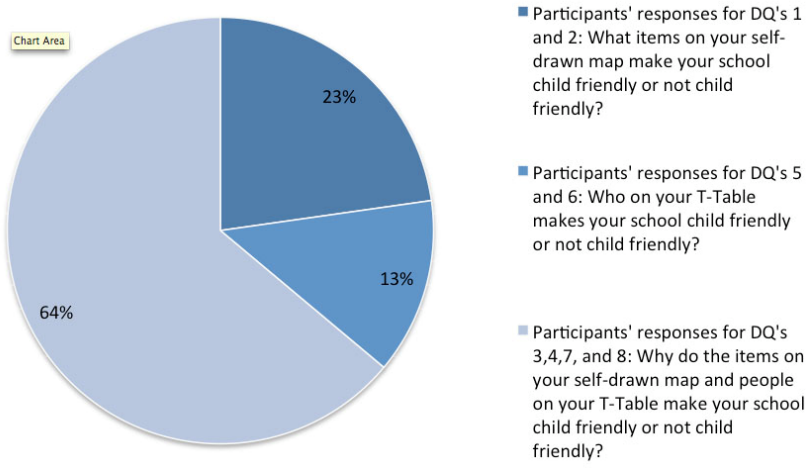

Figure 8. Total documented unique responses per FGD question.

I transferred the 2848 unique responses from the field notebooks into a Microsoft Excel spreadsheet for initial analysis and record keeping. There were 648 unique responses for DQs 1 and 2, which asked community members to indicate *what* items on their self-drawn maps made their schools child friendly (hereafter referred to as CF) or not child friendly (hereafter referred to as NCF). There were 380 unique documented responses for DQs 5 and 6, which asked about the person *who* in their self-generated T-tables they thought made their school CF or NCF. And finally, there were 1820 documented unique responses for DQs 3, 4, 7 and 8, which asked participants to explain the reasons *why* the items on their self-drawn school maps and people on their self-generated T-tables made their school CF or NCF (see Figure 8).

In total, 13% of the documented research participant responses were about *who* made schools CF or NCF, 23% were about *what* made schools CF or NCF, and 64% were about *why* these people and items made schools CF or NCF. The majority of data collected, therefore, were about reasons *why* certain items and people made schools CF or NCF.

Interpretative Phenomenological Analysis and Thematic Content Analysis

I used a combination of interpretative phenomenological analysis (IPA) and content thematic coding to analyse the data sets (Lyons & Coyle, 2007). Breakwell (2006) argues that examining data multiple times and through a variety of techniques can lead to more accurate conclusions and insights.

After entering the handwritten field notes into Microsoft Excel, I developed eight distinct steps for coding the data collected by each FGD DQ. Critical to the process of analysis was using 'constant comparison' in thematic coding to allow for previously coded elements to change and better reflect the reality of the data collected (Lyons & Coyle, 2007). The following eight steps provide transparency to the qualitative method – an essential element in both developing and trusting qualitative analyses in social science research (Breakwell, 2006). Lincoln and Guba (1987) refer to this as leaving an 'audit trail' in one's presentation of results which can significantly increase the dependability of qualitative analyses.

First, I organized the field notebooks by school number and category of FGD. Second, I reviewed each set of field notes six times in order to become immersed in the data and begin a process of constant comparison (Lyons & Coyle, 2007). Third, I input the data into Microsoft Excel (see Table V).

Referring to Table V, the pink rows represent the original descriptors as recorded in the field notebooks. In column D, row 1, the number 10 represents a response made by a participant in the pupil FGD in School 10, in response to DQ 1, 'What items on your school map make your school child friendly?' The fourth step involved grouping the initial data into 'emergent themes', represented by the green row in Table V (Henwood & Pidgeon, 2006, p. 348). This particular method of organizing the data using Microsoft Excel was inspired by field data presented by Goyer (2010). Fifth, I calculated the sub-totals of each category across each focus group (the light blue row) and then combined the results into a calculations summary like the one illustrated in Table VI. Note how the '25' sub-total from Table V is now in column I, row 1 of Table VI.

DQ 1: CODING OF RESPONSES OF WHAT ITEMS ON SELF-DRAWN MAPS MAKE SCHOOLS CHILD FRIENDLY							
	A	B	C	D	E	F	I
			ITEM	Pupils	Parents	Teachers	Total
	1. School gates and fences						
1			Side gate is friendly.	10			
2			Front gate is friendly.	3,9,14,16,10	10,9,16,8	15,9,14,12,11,3	
3			Fence is friendly.	3,15,14,16	8	15,9,14,11	
4	Sub Total Counts			10	5	10	25

Table V. Coding procedure for DQ 1 qualitative data.

DQ 1: What Items On Your Self-Drawn School Map Make Your School Child Friendly?										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
1	School gates and fences	10	6%	5	6%	10	7%	25	6%	6%
2	Security houses	0	0%	0	0%	2	1%	2	1%	0%
3	Special units	3	2%	1	1%	4	3%	8	2%	2%
4	Pupils toilets	3	2%	2	2%	6	4%	11	3%	3%
5	Water wells, taps, and tanks	10	6%	6	7%	10	7%	26	7%	7%
6	Classrooms	21	13%	14	17%	19	13%	54	14%	14%
7	Playground	12	8%	9	11%	11	8%	32	8%	9%
8	School gardens, farms	6	4%	1	1%	4	3%	11	3%	3%
9	School workshop	1	1%	0	0%	1	1%	2	1%	0%
10	Assembly ground	13	8%	7	8%	8	6%	28	7%	7%
11	Religious places to worship	4	3%	0	0%	3	2%	7	2%	2%
12	Examination council office	1	1%	0	0%	0	0%	1	0%	0%
13	Guidance and counselling office	0	0%	0	0%	1	1%	1	0%	0%
14	Administration office	7	4%	4	5%	6	4%	17	4%	4%
15	Deputy headteacher's office	5	3%	3	4%	4	3%	12	3%	3%
16	Headteacher's office	9	6%	5	6%	5	3%	19	5%	5%
17	Dining hall	5	3%	2	2%	4	3%	11	3%	3%
18	Kitchen	10	6%	2	2%	8	6%	20	5%	5%
19	Library	2	1%	2	2%	4	3%	8	2%	2%
20	Trees	13	8%	3	4%	6	4%	22	6%	5%
21	Staff room	3	2%	7	8%	7	5%	17	4%	5%
22	School pathways	2	1%	1	1%	2	1%	5	1%	1%
23	Parking area	1	1%	1	1%	1	1%	3	1%	1%
24	Staff toilets	6	4%	2	2%	7	5%	15	4%	4%
25	Computer space	1	1%		0%	1	1%	2	1%	0%
26	Electricity grid		0%	1	1%		0%	1	0%	0%
27	Store (storage facility)	3	2%	2	2%	4	3%	9	2%	2%
28	School timetable	1	1%	1	1%		0%	2	1%	1%
29	School motto	2	1%	1	1%	1	1%	4	1%	1%
30	School flag	6	4%	1	1%	4	3%	11	3%	3%
31	GRAND TOTAL RESPONSES	160		83		143		386		100.00%

Table VI. Calculations page for qualitative coding for DQ 1.

The number of responses to DQ 1 varied across pupil, parent and teacher FGDs (see Table VI, row 31). In order to account for this variation and to allow for more appropriate comparability across groups, a relative percentage was calculated for each item across all FGDs, as shown in columns D, F, H and J in Table VI. In step seven, I calculated the overall average relative percentage of prevalence for each item description. This value is recorded in column K of Table VI. In column K, row 1 of Table VI, there is a value of 6% corresponding to 'school gates and fences'. This means that out of all the responses given for DQ 1 across all the 48 focus groups, 6% of the relative percentage of coded responses corresponded to 'school gates and fences' within this particular data set. In step 8, I ranked all the final average percentage prevalence values from highest to lowest, as illustrated in Table VII.

DQ 1: What items on your self-drawn school map make your school child friendly?										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Responses Across Three Groups	% Total of Total Responses	Average of % Totals Across Three Groups
6	Classrooms	21	13%	14	17%	19	13%	54	14%	14%
7	Playground	12	8%	9	11%	11	8%	32	8%	9%
10	Assembly ground	13	8%	7	8%	8	6%	28	7%	7%
5	Water wells, taps, and tanks	10	6%	6	7%	10	7%	26	7%	7%
1	School gates and fences	10	6%	5	6%	10	7%	25	6%	6%
20	Trees	13	8%	3	4%	6	4%	22	6%	5%
21	Staffroom	3	2%	7	8%	7	5%	17	4%	5%
16	Headteacher's office	9	6%	5	6%	5	3%	19	5%	5%
18	Kitchen	10	6%	2	2%	8	6%	20	5%	5%
14	Administration office	7	4%	4	5%	6	4%	17	4%	4%
24	Staff toilets	6	4%	2	2%	7	5%	15	4%	4%
15	Deputy headteachers office	5	3%	3	4%	4	3%	12	3%	3%
4	Pupil toilets	3	2%	2	2%	6	4%	11	3%	3%
17	Dining hall	5	3%	2	2%	4	3%	11	3%	3%
8	School gardens, farms	6	4%	1	1%	4	3%	11	3%	3%
30	School flag	6	4%	1	1%	4	3%	11	3%	3%
27	Store (storage facility)	3	2%	2	2%	4	3%	9	2%	2%
19	Library	2	1%	2	2%	4	3%	8	2%	2%
3	Special units	3	2%	1	1%	4	3%	8	2%	2%
11	Religious places to worship	4	3%	0	0%	3	2%	7	2%	2%
22	School pathways	2	1%	1	1%	2	1%	5	1%	1%
29	School motto	2	1%	1	1%	1	1%	4	1%	1%
23	Parking area	1	1%	1	1%	1	1%	3	1%	1%
28	School timetable	1	1%	1	1%		0%	2	1%	1%
2	Security houses	0	0%	0	0%	2	1%	2	1%	0%
9	School workshop	1	1%	0	0%	1	1%	2	1%	0%
25	Computer space	1	1%		0%	1	1%	2	1%	0%
26	Electricity grid		0%	1	1%		0%	1	0%	0%
13	Guidance and counselling office	0	0%	0	0%	1	1%	1	0%	0%
12	Examination council office	1	1%	0	0%	0	0%	1	0%	0%

Table VII. Ranking of coded qualitative data from DQ 1.

Notice how the values are arranged by column K in Table VII from largest to smallest, while the values in column H have shifted significantly from their original order in Table VI. I applied this eight-step process to each data set that was created by coding the responses in the field notebooks for each of the eight DQs (a total of eight sets). The results are presented, per DQ, in the following sections.

Mapping What Makes Schools Child Friendly

The first DQ asked participants to identify what items on their self-drawn maps they perceived as making their schools child friendly. The three items that were most frequently marked by participants were classrooms (14%), playgrounds (9%) and assembly ground (7%). See Appendix B for all 30 items. Figure 9 illustrates the five most frequently marked items.

Among the five most frequently marked items, there was variability among pupil, teacher and parent perceptions, as illustrated in Figure 10. While 17% of parent responses identified classrooms as making schools child friendly, only 13% of both pupils' and teachers' perspectives had the same response.

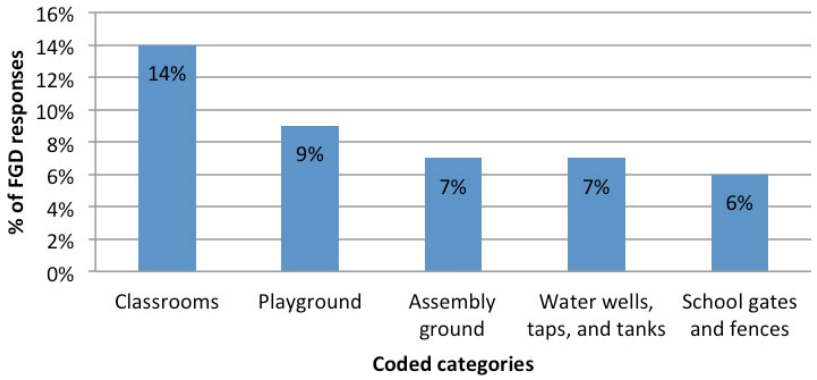

Figure 9. What makes your school child friendly?

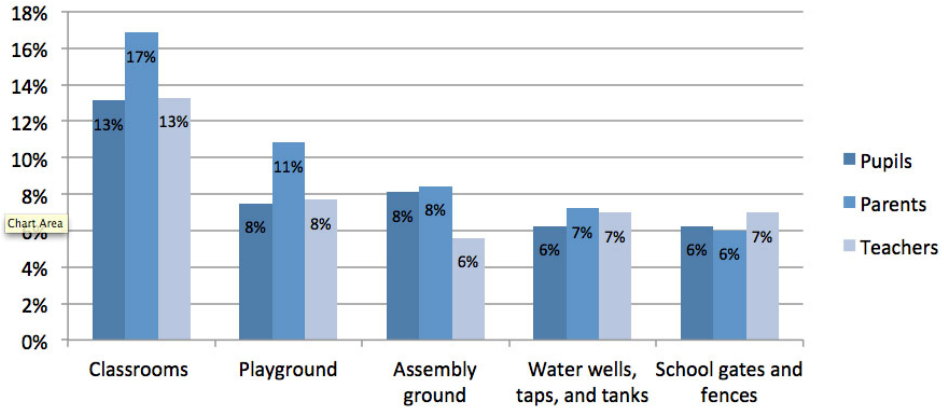

Figure 10. What makes your school child friendly? Differences between pupil, parent and teacher FGD responses.

Mapping What Makes Schools Not *Child Friendly*

The three items that were most frequently marked as making the school *not* child friendly were school gates and fences (20%), classrooms (16%) and water wells/taps/tanks (13%). See Appendix C for all 32 items. Figure 11 illustrates the five most frequently marked items.

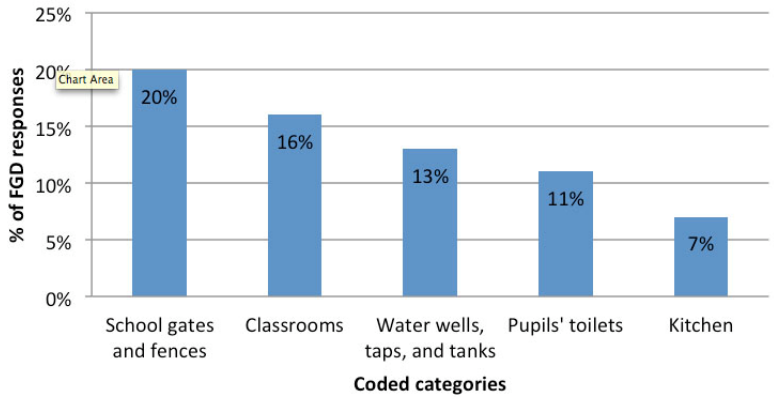

Figure 11. What makes your school not child friendly?

In Figure 12, it can be seen that pupils, parents and teachers varied in their perceptions of what made their schools not child friendly. For example, while 24% of pupils indicated that their school's gates and fences were not child friendly, only 15% of parents and 21% of teachers indicated that school gates and fences were not child friendly.

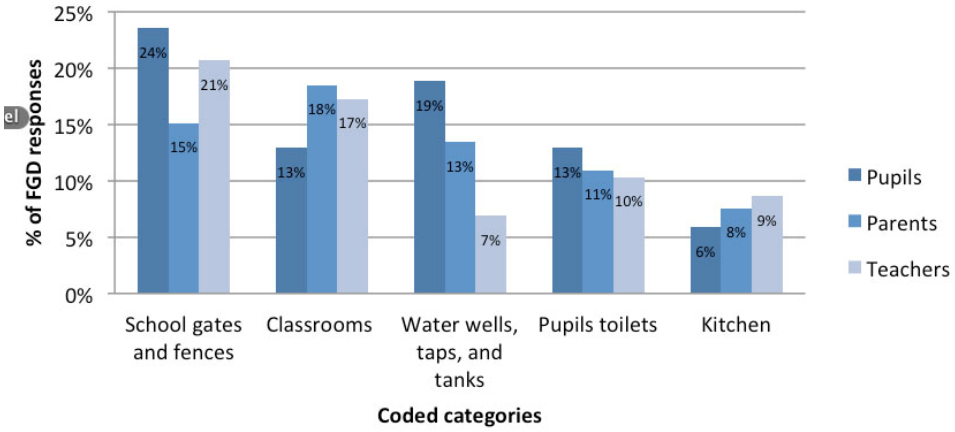

Figure 12. What makes your school not child friendly? Differences between pupil, parent and teacher FGD responses.

Who Makes Schools Child Friendly?

The three groups of people who were most frequently described as making schools child friendly were teachers (20%), government officials (14%) and parents (12%). See Appendix D for all 14 groups. The five most frequently cited groups of people are presented in Figure 13.

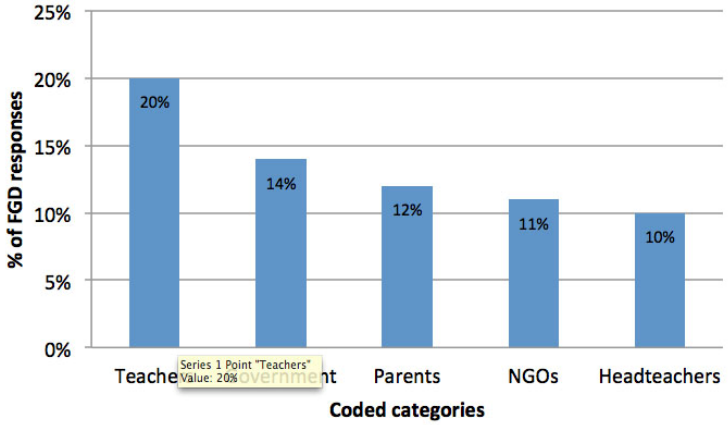

Figure 13. Who makes your school child friendly?

Similar to data from DQs 1 and 2, pupils, parents and teachers differed in their perceptions of who made their schools child friendly, as illustrated in Figure 14. While 28% of parents considered teachers as making their school child friendly, only 16% of pupils and teachers gave the same response.

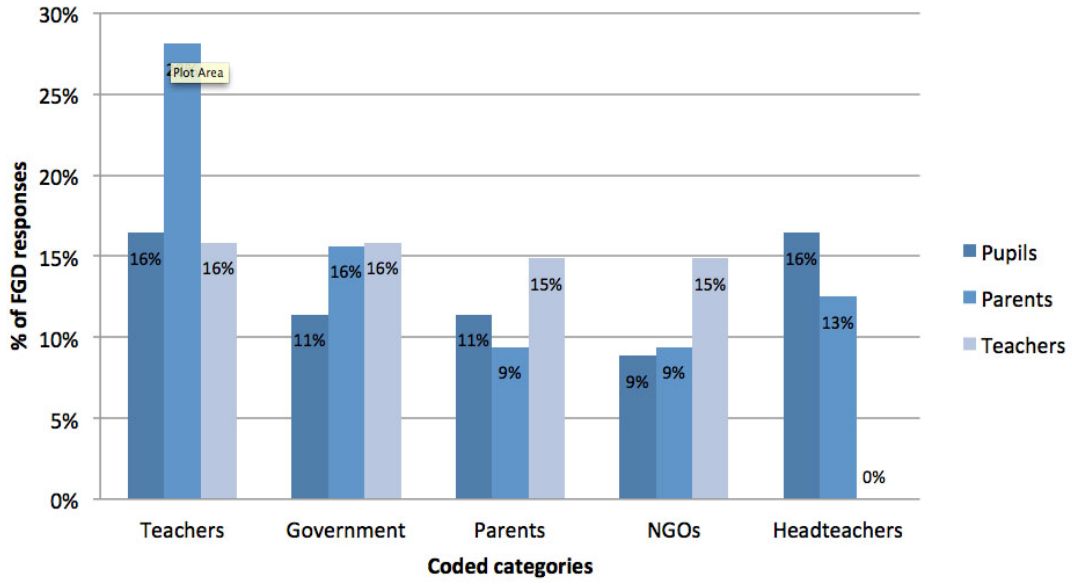

Figure 14. Who makes your school child friendly? Differences between pupil, parent, and teacher FGD responses.

Who Makes Schools Not Child Friendly?

The three groups of people who were most frequently described as making schools *not* child friendly were local community members (21%), parents (18%) and the Government (15%). See Appendix E for all 15 groups. The five most frequently cited groups of people are presented in Figure 15.

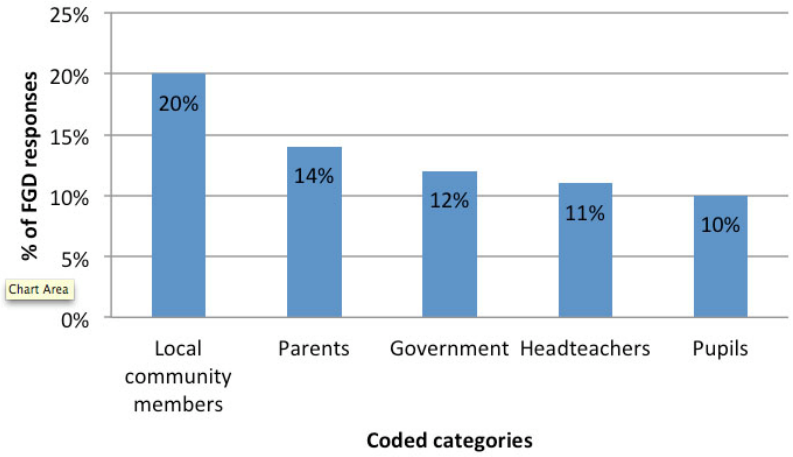

Figure 15. Who makes your school *not* child friendly?

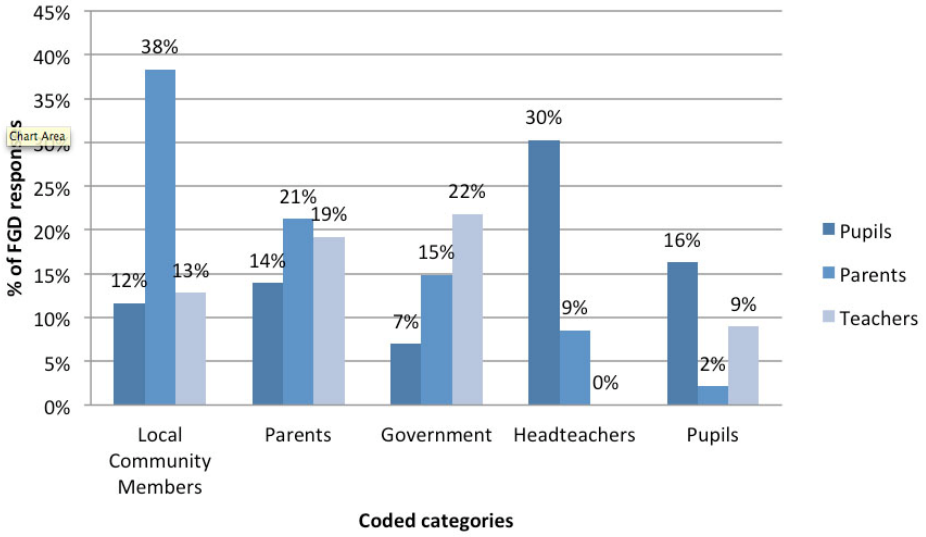

Figure 16. Who makes your school *not* child friendly? Differences between pupil, parent, and teacher FGD responses.

Pupils, teachers, and parents differed in their opinions of who made their schools not child friendly, as illustrated in Figure 16. While 38% of parents perceived local community members as making their school not child friendly, only 12% of pupils and 13% of teachers gave the same response.

Reasons Why Places and People Make Schools Child Friendly or Not Child Friendly

The following section describes the coding and results for the *reasons* that research participants offered to explain *why* certain items and people made their schools CF or NCF. The same coding process that was used for DQs 1, 2, 5 and 6 was applied to DQs 3, 4, 7 and 8, with a minor adjustment. In these rounds of analyses, I did not use an IPA-generated set of thematic categories. Rather, the first round of grouping involved categorizing all of the 1820 'why' responses into one of the 50 CMT categories listed in Table I. If I could not code a response using one of the 50 CMT categories, I coded it into a large general category called 'New Indicators' (NI). This process involved employing constant comparison throughout the analysis (Lyons & Coyle, 2007). In order to record difficult categorizing decisions, I also kept 'research memo notes' to offer insights into why particular decisions were made and when (Charmaz, 2010, p. 166).

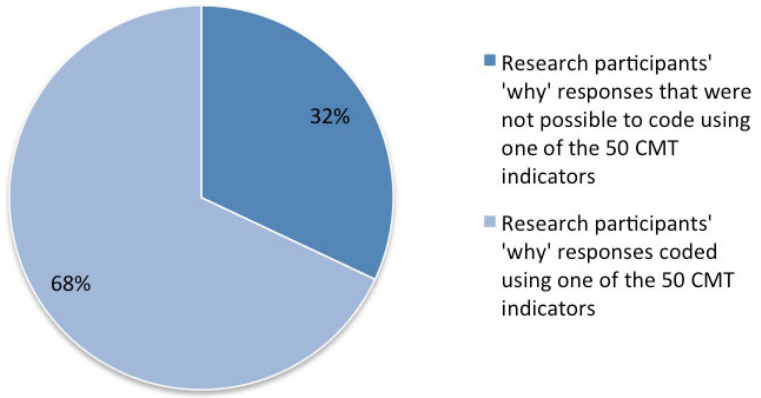

Figure 17. The missing piece of the quality pie in measuring local realities about child-friendly schools.

Of the 1820 documented unique responses to DQs 3, 4, 7 and 8, the study was able to code 1207 items of data using one of the 50 CMT indicators. It was found that 613 of the reasons fell under the 'NI' category. In total, 68% of the responses were coded using existing CMT indicators, while 32% were coded using 'NI'. Figure 17 illustrates the results.
These coded results were then grouped by FGD type – illustrating pupil, parent and teacher perspectives about *why* certain items and people made schools CF or NCF.

Figure 18 iillustrates how 73% of all pupils' '*why*' responses, 71% of all parents' '*why*' responses and 59% of teachers' '*why*' responses were coded using one of the 50 CMT indicators. However, there was a significant *gap* between the total number of '*why* responses' collected and those that could be coded using one of the CMT indicators. For example, the CMT indicators failed to capture 27% of puipls' perceptions about why certain people and items made their schools child-friendly or not, 29% of parents' perceptions and 41% of teachers' perceptions. Figure 18 illustrates these 'missing gaps'.

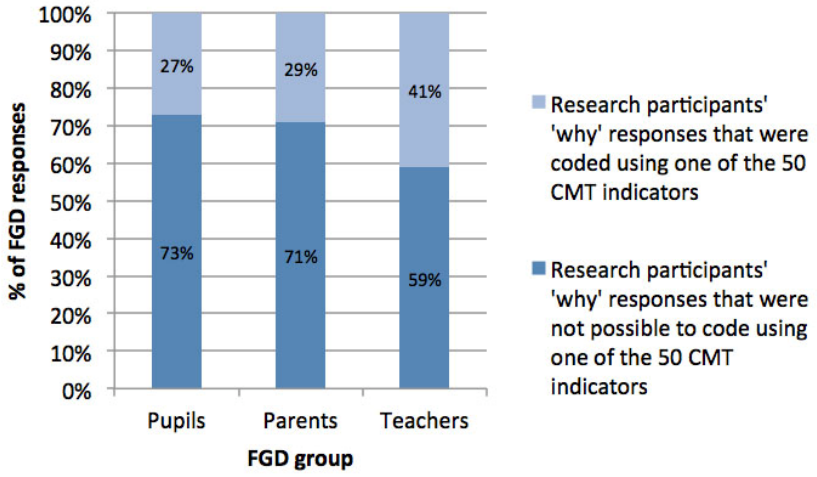

Figure 18. The missing gaps between local realities of CFS and the CMT indicators.

After the initial round of coding of CMT vs. NI categories, I grouped the remaining 613 'NI' responses into more manageable, collapsed categories. In order to do so, I conducted six rounds of 'constant comparison' and employed IPA-coding methods to allow 'emergent' themes to develop from 'NI' responses (Henwood & Pidgeon, 2006, p. 348). After analysing the results, the coding process generated 33 new, additional superordinate categories of reasons why research participants perceived certain people and places made their schools CF or NCF. These 33 new categories are hereafter referred to as 'NC'. Table VIII illustrates the coding process used to develop the new NCs.

In this step of the analysis, only '*why* responses' were analysed from DQs 3, 4, 7 and 8. The white rows represent the original responses from pupil, parent and teacher FGDs. The green row represents one of the new 33 NC categories. A full list of the new categories generated using this process is presented in Table IX.

Some of the new NCs included items such as 'School members lobby for new funds from a variety of sources to improve the school's quality' and 'Schools provide extra support for needy pupils including sponsorships and uniforms'. Although some may argue that the 'double-barrelled' nature of these new indicators may lead to confused or inaccurate subjective responses when rating certain items as CF or NCF (Babbie, 2010, p. 257), this type of grouping was done purposely to mirror the granularity of the original 50 CMT indicators as much as possible. Furthermore, this specificity allowed for local realities of quality education to be represented in detailed, self-explanatory, malleable variables that could be easily operationalized in practice and definition.

Coding Procedure for Qualitative Data from DQs 3,4,7, and 8 NOT fitting into CMT categories				
NC #	Unique response	Pupils	Parents	Teachers
The school provides pupils with good role models.				
76	Teachers are good role models for pupils.			1,2,3,4,6,7
76	Parents provide good role models for their students.			1,7
76	Political leaders are good role models			12
76	Teachers motivate pupils to succeed.			2
76	Local community members have lack of role models in the community since most of them are truck drivers only.			15
76	Parents are not role models for their children.			16
76	Pupils have lack of peer role models. `			6
76	Pupils lack good role models and pick up bad habits from town.		1	
Sub Total		0	1	13

Table VIII. Sample coding process for the new CFS categories.

Creating an Enhanced Child Friendly School Monitoring Toolkit (ECMT)

After the data were categorized into the 50 CMT categories and 33 NC categories, I combined all 83 categories into one Microsoft Excel sheet and used the 'sort function' to rank the total average relative percentage of prevalence of each item across all FGDs from highest to lowest. Table X lists the 16 most frequently cited reasons provided by research participants for why certain items and people make their schools CF or NCF.

	Indicator description	Prevalence across FGDs (%)
1	School stakeholders lobby for new funds from varied sources for improving school quality.	3.55
2	The school provides structurally sound, spacious, well-ventilated, well-roofed, well-lighted, well-equipped kitchen facilities.	2.63
3	The school provides adequate learning materials and equipment beyond textbooks.	2.05
4	Classrooms have adequate doors, roofs, floors and paint.	1.84
5	The school receives sufficient funding for school operations from the government on time.	1.72
6	The school's teachers and staff are approachable for pupils.	1.37
7	School stakeholders monitor the quality of the school on a regular basis.	1.29
8	The school provides extra support for needy pupils including sponsorships and uniforms.	1.20
9	Pupils at the school are well behaved and respect the school rules.	1.20
10	The school provides spacious, well-structured and accessible staff rooms.	1.18
11	The school is free from external corruption.	1.16
12	Pupils with disabilities are treated equally by all school stakeholders and community members.	1.13
13	School parents are able to provide basic needs for pupils at home.	1.04
14	The school receives positive enthusiasm and support from the local community.	0.96
15	The school's teachers have adequate salaries, compensation packages, fair employment contracts and equal opportunities for promotion.	0.91
16	The school provides structurally sound, spacious, well-ventilated, accessible administration buildings.	0.86
17	The school provides structurally sound, well-ventilated, accessible, spacious, and well-equipped library facilities.	0.77
18	Pupils are encouraged to actively participate in extra-curricular activities.	0.77
19	Non-school actors create awareness of the value of education in the community on behalf of the school.	0.75
20	The school provides spacious and accessible assembly grounds.	0.72
21	The school provides trees on campus for shade, protection and beauty.	0.69
22	School stakeholders provide positive incentives to motivate pupil and teacher performance.	0.68
23	The school provides pupils with good role models.	0.62

24	The school provides adequate furniture for teaching and learning.	0.59
25	Pupils come from homes that are safe, stable, and positively contribute to pupils' behavior and learning in the school.	0.59
26	The school has adequate and secure storage facilities for its school supplies.	0.56
27	Schools are free from political or tribal affiliation or influence.	0.35
28	The school provides pupils with opportunities to worship.	0.31
29	The school provides adequate support staff for pupils with special needs.	0.31
30	The school hosts awareness campaigns to educate their pupils about the prevention of HIV/AIDS	0.20
31	The school provides structurally sound, spacious, well-ventilated dining facilities.	0.19
32	The school's pupils perform well in academic examinations.	0.10
33	The school is concerned about the welfare of the environment.	0.08

Table IX. New indicators for CFS: results from pupil, parent, and teacher FGD responses a
bout why items and people in Kenyan public primary schools make their schools child-friendly or not.

As can be seen from Table X, there is a mix of *both* original CMT categories *and* NC categories.

Overall rank	NEW vs. ORIGINAL	Indicator description	Prevalence across FGDs (%)
1	ORIGINAL	Safety measures in place (i.e. fire extinguishers, fire escapes, drills, lightning arresters, first-aid kits, school fence.	6.60
2	ORIGINAL	Number of classrooms with proper ventilation, lighting and adequate learning space for children.	5.70
3	ORIGINAL	Access to safe, clean water for drinking and washing.	4.41
4	ORIGINAL	Parents are interested in and support pupils' learning at home and discuss pupils' work with teachers.	4.20
5	ORIGINAL	Peace, citizenship, guidance and counseling are promoted.	3.57
6	NEW	School stakeholders lobby for new funds from varied sources for improving school quality.	3.55
7	ORIGINAL	Teacher–pupil ratio (how many pupils study with one another).	3.46
8	ORIGINAL	Availability and use of well-defined play areas with recreation time allocated on timetable (including for learners with special needs).	3.16
9	ORIGINAL	School compound is clean and well maintained.	3.09
10	ORIGINAL	School has environment/compound free from hazardous/risky materials/buildings.	2.69
11	NEW	The school provides structurally sound, spacious, well-ventilated, well-roofed, well-lit, well-equipped kitchen facilities.	2.63
12	ORIGINAL	Provision of nutrition services in school (e.g. school feeding, deworming, vitamin A supplementation).	2.45
13	ORIGINAL	Toilets properly used and well maintained.	2.16
14	ORIGINAL	School enforces a policy on prevention of violence and corporal punishment through positive disciplining.	2.14
15	NEW	The school provides adequate learning materials and equipment beyond textbooks.	2.05
16	ORIGINAL	Ratio of latrines for girls and boys.	1.85

Table X. Top 16 indicators of child-friendliness as determined by
FGD responses (including original and new CFS indicators).

In order to compare and synthesize the CMT and NC indicators, I took the 50 most prevalent indicators mentioned in the FGDs and created an 'Enhanced Child Friendly Schools Monitoring Toolkit', hereafter called the '*E*CMT'. This new list of 50 items represents the 50 most frequently cited reasons why research participants believed certain items and people made their schools CF or NCF. Among the 50 new ECMT indicators, 29 were from the original CMT categories and 21 were from the NCs. The new 50-item ECMT claims to now cover 93% of the reasons why community members perceive that items and people make schools CF or NCF. This is illustrated in Figure 19, in a pie graph adjusted from the one presented in Figure 17. Only 7% (as opposed to 32%) of the participants' '*why* responses' could not be coded using one of the 50 ECMT categories. When one

compares this result to the earlier graph of how many participants' '*why* responses' were coded using the original 50 CMT indicators, the ECMT set of indicators covers approximately 25% more of the participants' responses.

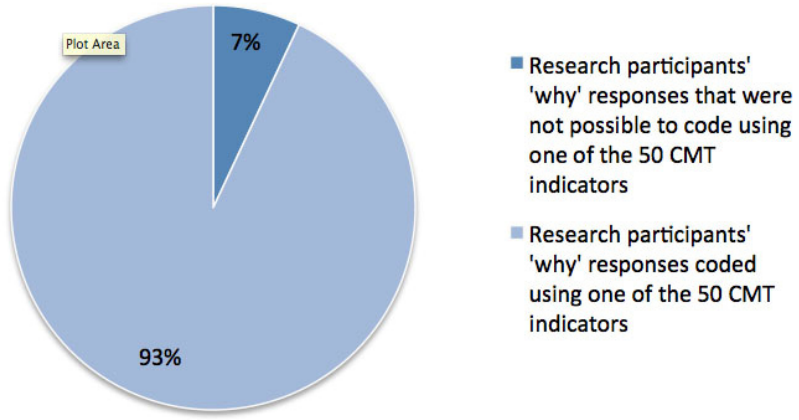

Figure 19. ECMT: representing a bigger piece of the quality pie in measuring local realities of CFS.

Thus, the ECMT represents a 'bigger piece of the quality pie' in measuring local school stakeholders' perceptions of what makes schools CF or NCF than the original CMT set of indicators.

In Figure 20, the 'missing gap' illustrated in Figure 18 is partially filled by the ECMT's new set of indicators. The blue bar represents the '*why* reasons' coded using the original CMT indicators; the red bar represents the additional '*why* reasons' that could be coded using the ECMT indicators; the green bar represents the '*why* responses' that still could not be coded using the ECMT indicators. It can be seen that the missing gaps across pupil, parent and teacher responses are filled substantially by the ECMT's new set of indicators.

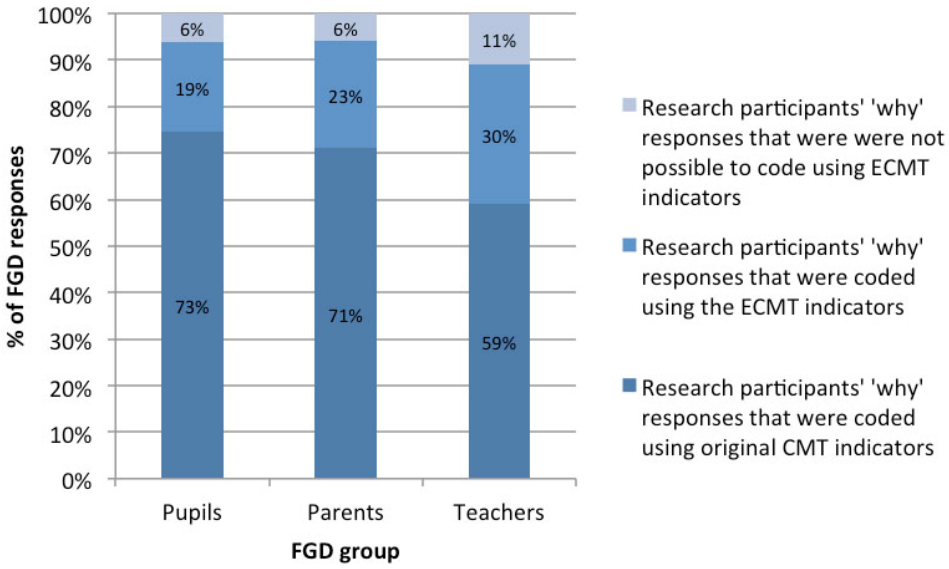

Figure 20. Filling in the missing gap: ECMT indicators and research participant '*why* responses' organized by pupil, parent, and teacher FGDs.

The 50 ECMT factors capture 19% more of the '*why* reasons' that pupils gave about factors making their schools CF or NCF than the original 50 CMT indicators did; for parents the ECMT captured 23% more; and for teachers 30% more.

The ECMT vs. CMT: a comparison using Heneveld and Craig's (1996) conceptual framework for school effectiveness

In the last analysis, I coded the final ECMT set of indicators using the eight categories of school variables laid out by Heneveld and Craig's (1996) conceptual framework for school effectiveness. This process included coding each of the 50 ECMT categories as either input variables (school resources or student characteristics), process variables (enabling conditions, teaching and learning, or school climate), outcome variables (academic or other achievement) or context variables (societal or school–community level). These eight categories were then grouped into the four main types of variables: context, input, process, or outcome variables (Heneveld & Craig, 1996). The same process of coding was also applied to the original CMT categories. Both sets of coded data were then compared to measure the varying emphasis of each tool on various school factors. Figure 21 summarizes the results.

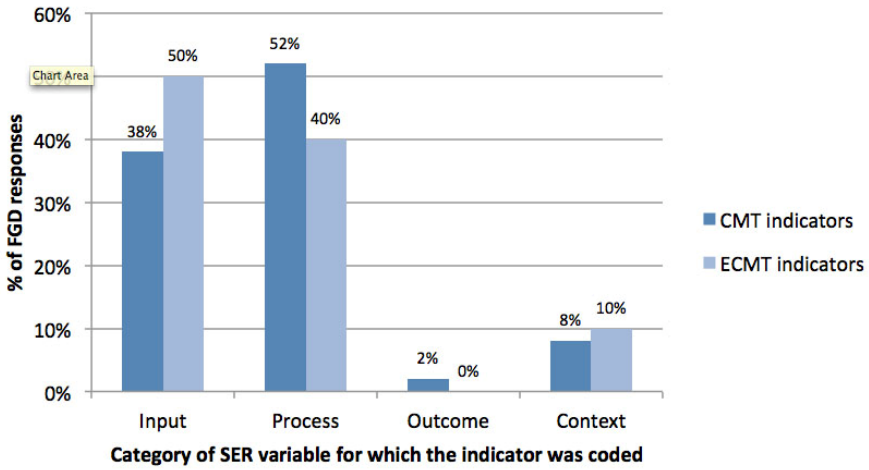

Figure 21. Balancing the trade offs: comparing the CMT and ECMT indicators through the lens of Heneveld and Craig's (1996) conceptual framework for school effectiveness.

Evidently, ECMT indicators place more emphasis on input and context indicators than the 50 original CMT indicators. The ECMT places less emphasis on process and outcome variables than the CMT.

Discussion

This last section presents the results in relation to each of the three original research questions.

Measuring Local Realities of Child-Friendly Schools

The first research question asked pupils, parents and teachers to describe the reasons why certain school factors negatively and positively contributed to a school's level of child-friendliness. When searching for the 'factors' of child-friendliness, the research design initially asked only the 'what' and 'who' questions in DQs 1, 2, 5 and 6, as outlined in previous sections. After testing the research design in the first pilot school, however, I realized the study was only hearing nouns (people, things and places) and nothing about *how* or *why* these items were making schools CF or NCF. As a result, DQs 3, 4, 7 and 8 were added to the FGD interview script in order to improve the construct validity

of the questions being asked (Kidd & Parshall, 2000). The following is a discussion of the results for the amended questions.

First, DQs 1 and 2 asked research participants 'what' items in schools made their schools CF or NCF. While many scholars have debated what specific set of inputs have an effect on educational outcomes (Lockheed & Verspoor, 1991; Delors et al, 1996; Heneveld & Craig, 1996), this study provides a wide range of local perceptions about a *variety* of inputs that can affect educational outcomes. According to the participants, school classrooms, playgrounds, and assembly grounds were perceived most often as making schools CF, while a lack of school classrooms, water sources, and security fences were perceived as making schools NCF. While Ngware et al (2010) argue that there is no correlation between better school buildings and test scores within Kenyan public primary schools, this study suggests that in regard to participants' perceptions of a school's 'child-friendliness', these items do, in fact, matter. Although Armitage et al (1986) and Fuller (1987) also demonstrate that there is no high correlation between physical infrastructure and pupils' performance, this study suggests that a lack of infrastructure, and security measures, specifically, strongly influences a school's perceived level of child-friendliness by its stakeholders. One participant asked me after an FGD, 'What good is it to have a working solar panel and water pump when there is no security fence to protect it from thieves?'

Second, DQs 5 and 6 asked participants to list 'who' made their schools CF or NCF, again providing local insight into findings made by Fuller (1987), Heneveld and Craig (1996) and Lee et al (2005) about the relationship between school characteristics, such as teachers and staff, and varying levels of educational quality in schools. The study's findings suggest that teachers, the Government and parents are most often perceived as making schools CF, while local community members, parents and the Government are seen as making schools NCF. The findings suggest that the Government's involvement or absence, parents' interest or apathy, and community members' support or hostility matter significantly in making schools CF or NCF. Fuller (1987), Heneveld and Craig (1996) and Ngware et al (2010) all emphasize that context variables of school communities influence both school effectiveness and school quality. This study provides specific insight into exactly who affects these variables, beyond the general category of 'school community stakeholders' which some studies use to describe the influence of local actors in promoting educational quality in schools (Heneveld and Craig, 1996). These findings could have implications for policy makers in determining which groups of people need education-related sensitization campaigns, professional development seminars, and/or managerial training related to improving a school's level of child-friendliness.

Analysis of the first two sets of findings from DQs 1, 2, 5 and 6, however, does not reveal the *reasons* why community members described these items and people as making their schools CF or NCF. According to Fuller (1987), most surveys on school effectiveness do not look beyond the material inputs and do not ask the harder questions of *how* and *why* these inputs are used within a school to improve its level of quality. This study attempts to do so in its second set of questions. When the study compares the set of reasons for child-friendly schools given by participants with Heneveld and Craig's (1996) CIPO model, the results show that a mix of input, context and process variables are important to school stakeholders' perceptions of child-friendliness in schools. The five reasons that appeared most frequently in participants' responses to DQs 7 and 8 are presented in Table XI.

Further, participants' perceptions of what and who, and the reasons why certain items and people make their schools CF or NCF, do not place as much emphasis on educational outcomes as one would expect in Kenya's high-stakes testing culture (Ngware et al, 2010). This finding seems to contradict the notion posed that Kenya is 'fixated on exam scores' in measuring a school's child-friendliness (UNICEF, 2008), and suggests that on the community level, a school's child-friendliness seems to be more influenced by input, process and context variables than by outcomes.

Lastly, the findings indicate that there is no 'one community view' of child-friendliness. Rather, the variability across pupils, parents and teachers' perceptions of local realities in quality education (Figures 12, 14, 16 and 18) illustrates the difficulty in coming to a consensus in multi-rater assessments through subjective analyses and sets of educational quality indicators (Brett & Atwater, 2001). In school self-evaluations, Fushimi (2010) cautions against the head teachers becoming the 'one voice' to represent the variety of perspectives that exist when describing a school's child-friendliness. This study's findings suggest that indeed, pupils, parents and teachers have different

perspectives of what, who and why certain items and people make schools CF or NCF, which necessitate a more nuanced and inclusive means of understanding the multiple perspectives of quality education at the school level (MacBeath & McGlynn, 2002).

Top 5 Indicators of Child Friendly Schools Across all Participants	
#	Indicator Description
1	Safety measures in place (i.e. fire extinguishers, fire escapes, drills, lightning arresters, first aid kits, school fence).
2	Number of classrooms with proper ventilation, lighting and adequate learning space for children.
3	Access to safe, clean water for drinking and washing.
4	Parents are interested in and support pupil's learning at home and discuss pupil's work with teachers.
5	Peace, citizenship, guidance and counselling are promoted.

Table XI. FGD participants' five main reasons for what and who make their schools child friendly.

Local Realities vs. National Metrics of Child-friendly Schools

The second research question aimed to compare and synthesize local realities of quality education with the original 50 indicators of the CMT. When comparing the CMT's set of indicators against the participant responses, a gap certainly exists. The study's findings show that only 68% of the FGD '*why* responses' could be coded using one of the 50 CMT categories, with the remaining 32% of responses left uncoded. These findings support what Chambers (1997, 2007) calls the problem of assumed realities by high-level policy makers that eventually leads to the creation of policies to 'help' those at the bottom. The findings suggest that the perceptions of child-friendliness by those at the community level (in this case, the pupils, parents and teachers) do not match the definition of child-friendliness offered by the higher level policy makers (in this case, UNICEF-Kenya and MoE officials). Furthermore, in regard to the question posed earlier about whether the CMT is a tool for school self-evaluation vs. school self-inspection, the findings seem to suggest that the CMT, as it is, resembles more closely what MacBeath (2006), Perryman (2007) and Fushimi (2009) describe as an exercise in school self-inspection – using external indicators to measure internal realities of quality.

As Kanbur and Squire (2001) describe in their review of international development interventions, most 'self-help' initiatives imposed from the top down fail because the needs of the 'people being helped' are not incorporated into the plans of those 'wishing to help'. The study's findings, therefore, should caution UNICEF-Kenya and MoE officials to avoid the same myopic planning mistake that Kanbur and Squire (2001) describe, when implementing the CMT. The results support what Easterly (2006) describes as the major difference between 'planners' and 'searchers' in international development projects: while the planners design, discuss and debate in conference halls and offices at the top level, searchers seek, do and learn from on-the-ground experiences and use community feedback to promote or demote intervention strategies based on relevance and demonstrated results. In the context of the CMT, the indicators for child-friendliness were created by the planners. This study's findings support what Easterly (2006) describes as the need to incorporate the views of 'searchers' in any policy planning phase from the top.

In any evaluation, however, it is surely impossible to cover *all* of what Fushimi (2010) refers to as the 'evaluand', which in this case would be local school stakeholders' perceptions of factors leading to child-friendliness. But what if there was an opportunity to significantly improve the coverage? Courtney (2008) argues that without community input into the design of school self-evaluations, the results are often seen as meaningless and school stakeholders dismiss any recommendations for improvement stemming from the evaluations. The findings suggest that there is an opportunity to increase the relevance of the categories on the CMT to more closely resemble what local school stakeholders perceive to be important factors in making their schools child friendly. These findings support what Chambers (1997, 2007), Kar (2003) and many other

scholars in participatory learning and action research suggest to be essential elements in triggering change from within, rather than from the outside.

I wrestled with how to synthesize the data reflecting the local realities of quality education with the 50 items of the CMT tool. If the study included all of the 33 new categories in an 83-item enhanced child-friendly school monitoring toolkit, one would expect the items on the questionnaire to cover everything participants cared about in relation to making their schools child friendly. This study assumes, however, that a 50-item questionnaire is the threshold for adequately managing school self-evaluations and asking respondents to rate their school's child-friendliness in a reasonable time period (for a more detailed description of survey design and problems with length, see Babbie, 2010).

Assuming that 50 indicators is the acceptable number of items for a school self-evaluation, it was found that when all 83 categories (50 from the CMT and 33 from the new set of indicators) are ranked together by their average percentage prevalence of participant responses, an Enhanced Child Friendly Schools Monitoring Toolkit (ECMT) emerges with 50 questions that now cover 93% of the reasons, as described by participants, why certain places and people make their schools CF or NCF. In other words, the ECMT represents a greater 'piece of the quality pie' in measuring local realities of child-friendly schools in Kenya. The ECMT covers 25% more of what Chambers (1997) would describe as 'lower' perceptions of child-friendly schools than what the higher level policy makers proposed through the 50 indicators of the CMT.

Within the ECMT, five of the most frequently cited *new* categories for child-friendly schools are listed in Table XII.

Five New Indicators for Measuring Child Friendly Schools Generated from Community Perceptions	
#	Indicator Description
1	School stakeholders lobby for new funds from a variety of sources for improving school quality.
2	The school provides structurally sound, spacious and well-equipped kitchen facilities.
3	The school provides adequate learning materials and equipment, beyond textbooks, for pupils' learning.
4	School classrooms have adequate doors, roofs, floors and paint.
5	The school receives sufficient and timely funding for school operations from the government.

Table XII. Five new indicators (generated by community perceptions of child-friendly schools) included in the ECMT.

One of the most frequently cited reasons for whether schools are child friendly is to do with whether or not school stakeholders have the ability to lobby for new funds. Fuller (1987), Heneveld and Craig (1996) and Ngware et al (2010) emphasize the value of school leadership as an enabling condition to improving schools' quality. The study's findings seem to agree. The specificity of the finding (school leaders' ability to fundraise) could provide valuable insight into *how* to improve a school's leadership as an enabling condition for school quality through future training on fundraising, advocacy and lobbying for support within and outside one's community.

Although the new 50-item ECMT represents a 'greater piece of the quality pie' in local realities of child-friendly schools, a disadvantage of the item constructs is that they ask 'double barrelled questions' in their categories of quality – forcing potential users of the questionnaire to provide a single answer to a category that has multiple parts (Babbie, 2010, p. 257). For example, one of the new ECMT indicators for child-friendly schools describes a kitchen that is spacious, well equipped and accessible. However, what if a kitchen is spacious, but not well equipped? How would a teacher, parent or pupil score this on an ECMT rating scale? This confusion illustrates one of the main weaknesses of both the original CMT set of indicators *and* the new set of 50 ECMT categories as they relate to stakeholders' abilities to accurately score their school's level of child-

friendliness using a 5-point scale. However, this study's focus was not to understand the scores given by pupils, parents and teachers about their school's child-friendliness, or how they used the CMT's point scale; rather, the focus of the study was to understand local realities of child-friendliness, relate them to the categorical themes outlined in the original set of 50 CMT indicators and identify any gaps or overlaps. However, the question of breaking the categories into non-double-barrelled questions could be the focus of a follow-up study. It is important to remember that the key aim of this study was first to learn *what* thematic indicators of child-friendly schools, according to local realities of primary school stakeholders, either complemented or supplemented those of the current CMT criteria. In this sense, the results provide invaluable insight into understanding the relatively low relevance of the CMT indicators in relation to local perceptions of what makes a school child friendly. I go on to suggest how to account for the majority of the missing items through the creation of the ECMT.

Recommendations for Including Local School Stakeholders' Views in Developing Evaluative Criteria for Measuring Child-friendliness in Schools

The last research question for this study ambitiously asked what policy recommendations and cautions the findings would suggest for incorporating local realities of quality education into a finalized version of the CMT for distribution. One must recognize how using knowledge generated through PLA methods for policy formation is still fraught with contradiction, considering the positivist and constructivist approaches to developing interventions *for* others, rather than *with* others (Neef, 2003). The study does not claim moral authority with its findings, as some PLA practitioners try to do (Neef, 2003). Rather, the study's findings, with limitations acknowledged, bring local perceptions of the global concept of child-friendliness from the practitioner's level to the top, rather than from the top down. The question, now, is what to do with this knowledge? After all, the impetus for the research study was to provide policy recommendations to be incorporated into a finalized version of the CMT for use by local school stakeholders. Although the study's findings provide information for multiple sets of policy recommendations, the discussion primarily focuses on the potential benefits and cautions for applying the newly developed ECMT from research into practice.

First, one may argue, as this study has, the current CMT does not capture a big enough 'piece of the quality pie' in measuring local realities of child-friendly schools. In response, one might use these findings to suggest that an enhanced set of 50 questions be developed, as suggested through the ECMT. After all, the ECMT incorporates 93% of a community's perceptions about child-friendliness; a 25% improvement on the CMT's current catchment rate of 68%. This would follow Easterly's (2006) logic to search for answers *before* planning international development. But the study's findings also suggest that by incorporating *only* local stakeholders' perspectives on school quality, the ECMT places more emphasis on input and context variables and less on process or outcome variables, as originally proposed by the CMT.

For this reason the study went a step further and compared the original CMT indicators against the new ECMT indicators through the lens of Heneveld and Craig's (1996) conceptual framework for school effectiveness. The study's findings suggest that when community perceptions were used to describe child-friendliness, some priorities that were originally promoted by the CMT were lost. As one can see from a back-to-back comparison of the ECMT and CMT set of indicators, the original CMT indicators seemed to measure a school's child-friendliness more through process and input variables, whereas the ECMT indicators tended to focus more on input and context variables. Furthermore, entire categories or notions of child-friendliness expressed by the CMT are ignored by the ECMT. Five of these categories are listed in Table XIII as having been mentioned by none of the participants' responses related to reasons why they thought certain items or people made their schools CF or NCF.

Scholars within both the SER and SIR research camps may argue, and rightfully so, that these categories are still important for measuring quality in schools (Fuller, 1987; Lockheed & Verspoor, 1991; Delors et al, 1996). The study does not suggest that the value of these indicators for contributing to school quality is lower than the other categories in the ECMT. The findings do suggest that participants' reflections about child-friendly schools do not include these criteria.

On the one hand, policy makers may interpret these findings as suggesting that the original CMT indicators, although limited in their ability to fully represent community perceptions of child-friendliness, may in fact be adding value to school stakeholders' notions about child-friendliness by introducing quality indicators that otherwise would be ignored or forgotten at the local level. This would suggest that the evaluation tool, by itself, incentivizes participants to care more about what they could measure (through the tool's indicators) rather than try to measure what they care about. This interpretation would resemble similar studies about how top-down metrics actually incentivize or force change on the ground by clients who simply want to 'pass' the set of evaluation criteria set by others (Kellaghan, 2009; Fushimi, 2010). For example, some scholars argue that a top-down emphasis placed on examination scores as a means to 'name and shame' (Fushimi, 2010) actually incentivizes schools to 'teach to the test' in order to pass inspection and conform to the predetermined set of quality indicators (Kellaghan, 2009). With regard to the study's findings, policy makers could argue that local school stakeholders are *also* missing a large piece of the quality pie in measuring child-friendliness in their schools. As one government official said in an interview with me, 'Without the 50 items on the CMT as reminders, communities will forget all the important factors that could make their school child friendly'.[8]

Five CMT Indicators Least Frequently Mentioned by Parents, Pupils and Teachers in Perceptions about Child Friendliness in their Schools	
#	Indicator Description
1	Instructional materials reflect and promote gender balance in roles of males versus females
2	Number of outreach activities done by school club to prevent HIV/AIDS per term.
3	School management committee and CFS team equally represented by males and females.
4	Linkages with community based ECD centres.
5	Evidence of community participation in the school development plan.

Table XIII. Five CMT indicators that were least frequently mentioned by pupil, parent and teacher perceptions of child-friendly schools.

On the other hand, these findings could be interpreted as an opportunity to avoid what Easterly (2006) and Chambers (1997) refer to as ignoring the priorities of the 'searchers' and 'lowers' in creating criteria for evaluating quality education. If the purpose of the CMT and the CFS framework is to trigger school self-improvement, then the ECMT represents a set of indicators that have more relevance to school stakeholders' perceptions of child-friendliness, which therefore might be more likely to lead to change at the school level. As Kanbur and Squire (2001) suggest, the inclusion of local priorities in development interventions is key to their ultimate success.

In conclusion, what the study provides most to policy makers is a *starting point* to engage in what Morrison and Singer (2007) suggest is a process of 'deliberative democracy' in developing criteria for measuring child-friendliness in schools. The strength of the PLA approach is to deconstruct the top-down versions of reality by listening to those from the bottom up *and* renegotiate concepts of reality in regard to policy decision making (Chambers, 1997; Kar, 2003; Easterly, 2006; Bongartz, 2010). Prior to this study, no data existed to describe what local school stakeholders perceived as factors making a school CF or NCF. Now, there is at least a starting point for a conversation to begin *between* both sets of knowledge from the top down and bottom up.

Conclusion

The study's findings show that a significant 'piece of the quality pie' in measuring local realities of child-friendliness in schools is missing from the CMT. More specifically, only 68% of the reasons why participants thought certain items and people made schools CF or NCF could be coded using one of the 50 CMT indicators. In order to represent a 'bigger piece of the quality pie' in measuring schools' child-friendliness, the study ambitiously suggests a new, combined set of indicators to

cover 93% of what participants in this study described as factors positively or negatively affecting a school's level of child-friendliness. Through multiple rounds of content coding and thematic analysis of 2828 pieces of information gained from the FGDs, the study found 33 new indicators that participants used to describe what makes their schools CF or NCF. The study then compared and synthesized the prevalence of participant responses that could be coded under both the 33 new indicators and the original 50 CMT indicators to develop an 'Enhanced Child Friendly Schools Monitoring Toolkit' (ECMT).

The study discusses the different types of school variables (context, input, process or outcomes) that the CMT and ECMT emphasize, using Heneveld and Craig's (1996) conceptual framework for school effectiveness. While the ECMT appears to have greater relevance for the intended users than the CMT, the ECMT also places more emphasis on input variables than the CMT indicators do. The CMT indicators appear to place more emphasis on process variables than the ECMT indicators. Both sets of indicators share a lack of emphasis on measuring outcome variables in regard to describing a school's level of child-friendliness.

Therefore, the findings of the study bring us back to the question raised by Chambers (1997) and mentioned earlier in the discussion: *Whose reality counts?* One way of interpreting this study's findings is to agree with Chambers (1997) and conclude that 'theirs' does. But when comparing the merits of the old CMT and the limitations of the new ECMT, the answer becomes a bit more nuanced. Even when looking at the variability among stakeholders within a school – pupils, parents and teachers – no one group of stakeholders shares the same perception of what makes their school child friendly. As MacBeath and McGlynn (2002) argue, the exercise of school self-evaluation will always be fraught with subjective biases that struggle with the ability to create a standardized top-down form of monitoring quality while simultaneously encouraging bottom-up ownership of the results.

In terms of applied research, these findings suggest a number of questions for further study with regard to the PLA approach and developing criteria for measuring child-friendliness in the Kenyan context. As outlined in the review of PLA methods and practice, policy change often happens when the voices from above allow the voices from below to be heard (Chambers, 1997). Knowledge, though, must be embedded in cycles of *action–reflection–action* in order to be considered participatory learning and action research (Chambers, 1997). The next step for this research study, therefore, would be to complete the cycle of PLA by returning to the same sample schools to learn if and how their reflections about child- friendly schools had led to any action towards improving the quality of education in their schools. The present study's aims were only to understand *what* and *who* local school stakeholders described as making their schools child friendly and *why*.

In sum, the study's findings provide an impetus to continue what Easterly (2006) describes as a project of 'searching' for the local realities of quality education in Kenya in order to create suitable plans for educational quality evaluations, interventions, and assistance. Most importantly, the study's findings encourage policy makers to engage in more, rather than fewer, conversations about understanding local realities of quality education in Kenya, and to listen to the perspectives of the heroic pupils, parents and teachers who are learning, living and teaching among some of the harshest conditions in rural and urban Africa – all trying their best to achieve quality basic education for all.

Notes

[1] Pupils begin to enrol in primary school at ages 6-7, meaning that by class 6, pupils are often 11-12 years old, though age may range from 10 to 19 years old with some pupils skipping grades and many repeating classes towards class 8 completion of primary school.

[2] Author's interview with Chairman of Kenya Primary School Head Teachers Association (KEPSHA) at Nairobi Primary School, 11 May 2011.

[3] Author's interview with F. Nakulo, Deputy Director of Quality Assurance and Standards in Ministry of Education about DQASO role in CFS, 11 May 2011.

[4] Author's interview with Kenya Navy Primary School Head Teacher about DQASO vs. CFS, 21 June 2011.

[5] Chambers (2007) provides a more comprehensive analysis of the history of PLA than can be described in the context of this study, including discussion of the work of Freire (1970) in the REFLECT programme for adult literacy and various participatory agro-business initiatives.

[6] Author's interview with Kamal Kar in Nairobi, Kenya, 16 May 2011.

[7] In Kenya, there are an estimated 30-40 local languages, while the national spoken languages are English and Swahili (Bunyi, 1999, p. 339). Luo is among the top three most spoken local languages in the country (Bunyi, 1999, p. 339).

[8] Author's interview with F. Nakulo, Deputy Director of Quality Assurance and Standards in Ministry of Education about DQASO role in CFS, 11 May 2011.

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APPENDICES

Appendix A. Map of Kenya and travel routes for research team

N = Nairobi

The research team traveled approximately **3,045 km** along the marked routes to each of the locations (Pilot sites 1 and 2 (then back to Nairobi), then Study Sample Sites 3 and 4 while again, returning to Nairobi at the end. All travel was from **May 18-June 24, 2011.** All distances were calculated using Google Maps.

1 = Pilot Site 1 (431 km)

2 = Pilot Site 2 (218 km)

N Return to Nairobi from Pilot (341 km)

3 = Rural D1 (833 km)

4 = Urban D2 (783 km)

N Return to Nairobi from D2 (439 km)

Original map source: http://www.bjchinesetranslation.com/maps_of_the_world/map_of_Kenya.jpg. Arrow/number markings by author.

Appendix B. Calculations and rankings for DQ 1 results: What makes schools child friendly?

DQ 1: What items on your self-drawn school map make your school child friendly?										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Responses Across Three Groups	% Total of Total Responses	Average of % Totals Across Three Groups
1	School gates and fences	10	6%	5	6%	10	7%	25	6%	6%
2	Security houses	0	0%	0	0%	2	1%	2	1%	0%
3	Special units	3	2%	1	1%	4	3%	8	2%	2%
4	Pupil toilets	3	2%	2	2%	6	4%	11	3%	3%
5	Water wells, taps, and tanks	10	6%	6	7%	10	7%	26	7%	7%
6	Classrooms	21	13%	14	17%	19	13%	54	14%	14%
7	Playground	12	8%	9	11%	11	8%	32	8%	9%
8	School gardens, farms	6	4%	1	1%	4	3%	11	3%	3%
9	School workshop	1	1%	0	0%	1	1%	2	1%	0%
10	Assembly ground	13	8%	7	8%	8	6%	28	7%	7%
11	Religious places to worship	4	3%	0	0%	3	2%	7	2%	2%
12	Examination council office	1	1%	0	0%	0	0%	1	0%	0%
13	Guidance and counselling office	0	0%	0	0%	1	1%	1	0%	0%
14	Administration office	7	4%	4	5%	6	4%	17	4%	4%
15	Deputy headteachers office	5	3%	3	4%	4	3%	12	3%	3%
16	Headteacher's office	9	6%	5	6%	5	3%	19	5%	5%
17	Dining hall	5	3%	2	2%	4	3%	11	3%	3%
18	Kitchen	10	6%	2	2%	8	6%	20	5%	5%
19	Library	2	1%	2	2%	4	3%	8	2%	2%
20	Trees	13	8%	3	4%	6	4%	22	6%	5%
21	Staffroom	3	2%	7	8%	7	5%	17	4%	5%
22	School pathways	2	1%	1	1%	2	1%	5	1%	1%
23	Parking area	1	1%	1	1%	1	1%	3	1%	1%
24	Staff toilets	6	4%	2	2%	7	5%	15	4%	4%
25	Computer space	1	1%		0%	1	1%	2	1%	0%
26	Electricity grid		0%	1	1%		0%	1	0%	0%
27	Store (storage facility)	3	2%	2	2%	4	3%	9	2%	2%
28	School timetable	1	1%	1	1%		0%	2	1%	1%
29	School motto	2	1%	1	1%	1	1%	4	1%	1%
30	School flag	6	4%	1	1%	4	3%	11	3%	3%
31	GRAND TOTAL RESPONSES	160		83		143		386		100.00%

DQ 1: What items on your self-drawn school map make your school child friendly? Ranked by column K.										
A	B	C	D	E	F	G	H	I	J	K
Indicator	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
6	Classrooms	21	13%	14	17%	19	13%	54	14%	14%
7	Playground	12	8%	9	11%	11	8%	32	8%	9%
10	Assembly ground	13	8%	7	8%	8	6%	28	7%	7%
5	Water wells, taps, and tanks	10	6%	6	7%	10	7%	26	7%	7%
1	School gates and fences	10	6%	5	6%	10	7%	25	6%	6%
20	Trees	13	8%	3	4%	6	4%	22	6%	5%
21	Staff room	3	2%	7	8%	7	5%	17	4%	5%
16	Headteacher's Office	9	6%	5	6%	5	3%	19	5%	5%
18	Kitchen	10	6%	2	2%	8	6%	20	5%	5%
14	Administration office	7	4%	4	5%	6	4%	17	4%	4%
24	Staff toilets	6	4%	2	2%	7	5%	15	4%	4%
15	Deputy headteachers office	5	3%	3	4%	4	3%	12	3%	3%
4	Pupils' toilets	3	2%	2	2%	6	4%	11	3%	3%
17	Dining hall	5	3%	2	2%	4	3%	11	3%	3%
8	School gardens, farms	6	4%	1	1%	4	3%	11	3%	3%
30	School flag	6	4%	1	1%	4	3%	11	3%	3%
27	Store (storage facility)	3	2%	2	2%	4	3%	9	2%	2%
19	Library	2	1%	2	2%	4	3%	8	2%	2%
3	Special units	3	2%	1	1%	4	3%	8	2%	2%
11	Religious places to worship	4	3%	0	0%	3	2%	7	2%	2%
22	School pathways	2	1%	1	1%	2	1%	5	1%	1%
29	School motto	2	1%	1	1%	1	1%	4	1%	1%
23	Parking area	1	1%	1	1%	1	1%	3	1%	1%
28	School timetable	1	1%	1	1%		0%	2	1%	1%
	*note, indcators with 0% were not ranked in the above table from the original results.									

Appendix C. Calculations and rankings for DQ 2 results: What makes schools *not* child friendly?

DQ 2: What items on your self-drawn school map make your school NOT child friendly?										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
1	School gates and fences	20	24%	18	15%	12	21%	50	19%	20%
2	Security houses	0	0%	0	0%	0	0%	0	0%	0%
3	Special units	0	0%	2	2%	0	0%	2	1%	1%
4	Pupils toilets	11	13%	13	11%	6	10%	30	11%	11%
5	Water wells, taps, and tanks	16	19%	16	13%	4	7%	36	14%	13%
6	Classrooms	11	13%	22	18%	10	17%	43	16%	16%
7	Playground	7	8%	7	6%	4	7%	18	7%	7%
8	School gardens, farms	2	2%	1	1%	3	5%	6	2%	3%
9	School workshop	1	1%	2	2%	3	5%	6	2%	3%
10	Assembly ground		0%		0%		0%	0	0%	0%
11	Religious places to worship		0%		0%		0%	0	0%	0%
12	Examiniation council office		0%		0%		0%	0	0%	0%
13	Guidance and counselling office		0%		0%		0%	0	0%	0%
14	Administration office		0%		0%		0%	0	0%	0%
15	Deputy headteacher's office		0%	5	4%		0%	5	2%	1%
16	Headteacher's office		0%	2	2%		0%	2	1%	1%
17	Dining hall	1	1%	2	2%	1	2%	4	2%	2%
18	Kitchen	5	6%	9	8%	5	9%	19	7%	7%
19	Library	2	2%	3	3%		0%	5	2%	2%
20	Trees		0%		0%		0%	0	0%	0%
21	Staff room	2	2%	5	4%	3	5%	10	4%	4%
22	School pathways		0%	1	1%		0%	1	0%	0%
23	Parking area		0%		0%	1	2%	1	0%	1%
24	Staff toilets		0%		0%		0%	0	0%	0%
25	Computer space		0%	3	3%	1	2%	4	2%	1%
26	Electricity grid		0%		0%		0%	0	0%	0%
27	Store (storage facility)	3	4%	8	7%	2	3%	13	5%	5%
28	School timetable		0%		0%		0%	0	0%	0%
29	School motto		0%		0%		0%	0	0%	0%
30	School flag	0	0%		0%	0	0%	0	0%	0%
31	Wastage and sewage system	2	2%		0%	3	5%	5	2%	3%
32	Geography of the school	2	2%		0%		0%	2	1%	1%
	GRAND TOTAL	85		119		58		262		100.00%

DQ 2: What items on your self-drawn school map make your school NOT child friendly? Ranked by column K.										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
1	School gates and fences	20	24%	18	15%	12	21%	50	19%	20%
6	Classrooms	11	13%	22	18%	10	17%	43	16%	16%
5	Water wells, taps, and tanks	16	19%	16	13%	4	7%	36	14%	13%
4	Pupils' toilets	11	13%	13	11%	6	10%	30	11%	11%
18	Kitchen	5	6%	9	8%	5	9%	19	7%	7%
7	Playground	7	8%	7	6%	4	7%	18	7%	7%
27	Store (storage facility)	3	4%	8	7%	2	3%	13	5%	5%
21	Staff room	2	2%	5	4%	3	5%	10	4%	4%
8	School gardens, farms	2	2%	1	1%	3	5%	6	2%	3%
9	School workshop	1	1%	2	2%	3	5%	6	2%	3%
31	Wastage and sewage system	2	2%		0%	3	5%	5	2%	3%
19	Library	2	2%	3	3%		0%	5	2%	2%
17	Dining hall	1	1%	2	2%	1	2%	4	2%	2%
25	Computer space		0%	3	3%	1	2%	4	2%	1%
15	Deputy headteacher's office		0%	5	4%		0%	5	2%	1%
32	Geography of the school	2	2%		0%		0%	2	1%	1%
23	Parking area		0%		0%	1	2%	1	0%	1%
3	Special units	0	0%	2	2%	0	0%	2	1%	1%
16	Headteacher's office		0%	2	2%		0%	2	1%	1%
	*note - any item that received 0% responses in the results plain was not ranked in the above table.									

Appendix D. Calculations and rankings for DQ 5 results: Who makes schools child friendly?

DQ 5: Who on your T-Tables makes your school child friendly?										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
1	Headteacher	13	16%	4	13%	0	0%	17	8%	10%
2	Deputy Headteacher	4	5%	0	0%	0	0%	4	2%	2%
3	Teachers	13	16%	9	28%	16	16%	38	18%	20%
4	Parents	9	11%	3	9%	15	15%	27	13%	12%
5	Donors/Corporate Sponsors	2	3%	3	9%	2	2%	7	3%	5%
6	SMC Members	8	10%	3	9%	4	4%	15	7%	8%
7	NGOs	7	9%	3	9%	15	15%	25	12%	11%
8	Government	9	11%	5	16%	16	16%	30	14%	14%
9	Religious Groups	1	1%	1	3%	6	6%	8	4%	3%
10	Political Leaders	1	1%	1	3%	4	4%	6	3%	3%
11	Pupils	8	10%		0%	11	11%	19	9%	7%
12	Support Staff	1	1%		0%	7	7%	8	4%	3%
13	Watchman for Security	1	1%		0%		0%	1	0%	0%
14	Local Community Members	2	3%		0%	5	5%	7	3%	2%
	GRAND TOTAL	79		32		101		212		100%

DQ 5: Who on your T-Tables makes your school child friendly? Ranked by Column K.										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
3	Teachers	13	16%	9	28%	16	16%	38	18%	20%
8	Government	9	11%	5	16%	16	16%	30	14%	14%
4	Parents	9	11%	3	9%	15	15%	27	13%	12%
7	NGOs	7	9%	3	9%	15	15%	25	12%	11%
1	Headteacher	13	16%	4	13%	0	0%	17	8%	10%
6	SMC Members	8	10%	3	9%	4	4%	15	7%	8%
11	Pupils	8	10%		0%	11	11%	19	9%	7%
5	Donors/Corporate Sponsors	2	3%	3	9%	2	2%	7	3%	5%
9	Religious Groups	1	1%	1	3%	6	6%	8	4%	3%
10	Political Leaders	1	1%	1	3%	4	4%	6	3%	3%
12	Support Staff	1	1%		0%	7	7%	8	4%	3%
14	Local Community Members	2	3%		0%	5	5%	7	3%	2%
2	Deputy Headteacher	4	5%	0	0%	0	0%	4	2%	2%
	* note, any category receiving 0% of responses in plain results was not ranked in this table									

Appendix E. Calculations and rankings for DQ 6 results: Who makes schools not child friendly?

DQ 6: Who on your T-Tables makes your school NOT child friendly?										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
1	Headteacher	13	30%	4	9%	0	0%	17	10%	13%
2	Deputy Headteacher	4	9%	0	0%	0	0%	4	2%	3%
3	Teachers	1	2%	1	2%	9	12%	11	7%	5%
4	Parents	6	14%	10	21%	15	19%	31	18%	18%
5	Donors/Corporate Sponsors	2	5%	3	6%	2	3%	7	4%	5%
6	SMC Members		0%		0%	3	4%	3	2%	1%
7	NGOs		0%	1	2%	7	9%	8	5%	4%
8	Government	3	7%	7	15%	17	22%	27	16%	15%
9	Religious Groups		0%	0	0%	1	1%	1	1%	0%
10	Political Leaders	0	0%	2	4%	5	6%	7	4%	4%
11	Pupils	7	16%	1	2%	7	9%	15	9%	9%
12	Support Staff	1	2%	0	0%	2	3%	3	2%	2%
13	Watchman for Security	1	2%		0%		0%	1	1%	1%
14	Local Community Members	5	12%	18	38%	10	13%	33	20%	21%
15	Local Hospital Members	0	0%	1	2%	0	0%	1	1%	1%
	GRAND TOTAL	43		47		78		168		100%

DQ 6: Who on your T-Tables makes your school NOT child friendly? Ranked by Column K.										
A	B	C	D	E	F	G	H	I	J	K
Item #	Indicator	Pupils' FGD Responses	% of Pupils' Responses	Parents' FGD Responses	% of Parents' Responses	Teachers' FGD Responses	% of Teachers' Responses	Total Unique Responses Over Three Groups	% Total Unique Responses Over Three Groups	Average % Across Groups
14	Local Community Members	5	12%	18	38%	10	13%	33	20%	21%
4	Parents	6	14%	10	21%	15	19%	31	18%	18%
8	Government	3	7%	7	15%	17	22%	27	16%	15%
1	Headteacher	13	30%	4	9%	0	0%	17	10%	13%
11	Pupils	7	16%	1	2%	7	9%	15	9%	9%
3	Teachers	1	2%	1	2%	9	12%	11	7%	5%
5	Donors/Corporate Sponsors	2	5%	3	6%	2	3%	7	4%	5%
7	NGOs		0%	1	2%	7	9%	8	5%	4%
10	Political Leaders	0	0%	2	4%	5	6%	7	4%	4%
2	Deputy Headteacher	4	9%	0	0%	0	0%	4	2%	3%
12	Support Staff	1	2%	0	0%	2	3%	3	2%	2%
6	SMC Members		0%		0%	3	4%	3	2%	1%
13	Watchman for Security	1	2%		0%		0%	1	1%	1%
15	Local Hospital Members	0	0%	1	2%	0	0%	1	1%	1%
	*note any category receiving 0% in the results plain section was not ranked in this table.									

Appendix F. Videos from author's Kenyan fieldwork with CFS

Seven videos were produced and presented to the Kenyan Primary School Headteachers Association Conference in July 2011. Links to the videos are below.

Video 1: Child Friendly Schools: A Call to Action:
http://www.youtube.com/watch?v=JBAVEyaWHCs

Video 2: Evaluating Inclusive Child Friendly Classrooms:
http://www.youtube.com/watch?v=BwqMUsDhRn0

Video 3: Evaluating Safety and Protection in Schools:
http://www.youtube.com/watch?v=9cqh3Yaiq3w

Video 4: Evaluating Health and Nutrition in Schools:
http://www.youtube.com/watch?v=6Wwe7fz6VII

Video 5: Evaluating Equity and Equality in Schools:
http://www.youtube.com/watch?v=b1dvr6zui9k

Video 6: Evaluating Strong Community Partnerships in Schools:
http://www.youtube.com/watch?v=9utagXRlY6I

Video 7: Child Friendly Schools: Progress and the Sign of a Victory
http://www.youtube.com/watch?v=udAkGjymgHE

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