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Understanding perceptions of quality among early childhood education stakeholders in Tanzania and Lesotho: A multiple qualitative case study



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ABSTRACT

Recent global efforts around early childhood education (ECE) have led to increased investments and access, especially in low- and middle-income countries (UNESCO, 2019). As access grows, focus has shifted from enrollment to quality (Gove, 2017). This paper explores how ECE stakeholders in Tanzania and Lesotho define ECE quality. Findings show that stakeholders define quality in similar ways, highlighting the importance of trained teachers who implement specific teaching practices, strong partnerships with families and the community, critical infrastructure, and government support. However, review of the country contexts found that current conditions and support for these quality indicators were lacking.

1. Introduction

While global efforts around early childhood education (ECE) have spanned decades (see [Kamerman, 2006](#) for a historical review), ECE received intense global focus in the 1990's due to multiple global events including the start of the Education for All movement, the launch of UNESCO's Global Monitoring Reports and OECD Thematic Review of Early Childhood Education and Care, the World Summit for Children, and the Convention on the Rights of the Child. There was particular emphasis on investing in ECE in low- and middle-income countries (LMIC) as a way to improve living conditions and equity in education. The work and focus of these initiatives over the next few decades contributed to the inclusion of early childhood education in the 2015 Sustainable Development Goals (SDGs). The SDGs included a target specific to early childhood education. SDG Target 4.2. states the goal of ensuring "that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education" by 2030.

As access to ECE services increases and evidence of the importance of ECE, particularly in LMIC mounts ([Britto et al., 2011](#)), a recent shift has placed greater emphasis on raising quality in ECE programs ([Gove, 2017](#)). Attention to ECE has expanded beyond enrollment rates to begin

exploring the quality of these environments. This focus on improving quality has led to work on identifying indicators of quality that are most important to these contexts. The focus of the present case study is to explore the perceptions of key stakeholders on ECE quality within their country contexts during this time of rapid expansion and recent policy implementation.

Quality indicators identified in high-income countries (HIC) have been used as a starting point and have been applied to other settings, although with many concerns ([Myers, 2004](#)). This practice is problematic because there is limited data to support their associations to child outcomes across settings. For example, measures commonly used in the U.S and other HIC, such as the Environmental Rating Scales (e.g., ECERS; [Harms et al., 1980](#); ECERS-R; [Harms et al., 1998](#); ECERS-3; [Harms et al., 2015](#)) and the Classroom Assessment Scoring System observation tool (CLASS-PreK; [Pianta et al., 2008](#)) have been adapted for use in low- and middle-income countries, with mixed results (e.g. [Burchinal, 2018](#)). In addition, the global community has continued to seek measures as a means to track country progress towards global indicators and report on the SDGs. This has prompted initiatives to establish common quality definitions or indicators and develop measures of quality such as the Measuring Early Learning and Quality Outcomes (MELQO; [UNESCO](#)

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et al., 2017), a joint effort of the World Bank, Brookings Institute and UNESCO. The development of these measures has highlighted the importance of local adaptation and cultural relevance in determining what quality looks like in different contexts (Raikes et al., 2019). For example, there is increased pressure to measure and report the quality of ECE reflected in the Sustainable Development Goals. However, research has also highlighted the need for sensitive measures that consider the context of individual countries (Myers, 2004; Rao et al., 2017).

During the development of country ECE services and systems, large funders (such as the World Bank and UNICEF) and global initiatives can shape country policies and work (see Baum et al., 2019 for specific examples of how this has happened in Tanzania). It is critical, therefore, in this work with a multitude of influences and priorities, that the development of reliable, valid and culturally relevant measures of quality must: 1) include input from country-level ECE stakeholders; 2) be drawn from and consistent with the expectations and beliefs of those delivering and receiving ECE services; and 3) include government guidance, policies and support for these practices and indicators. This paper describes a qualitative case study pilot project designed to gather perspectives from various stakeholders on defining ECE quality in their context and identifying supports for these quality indicators. It seeks to prove further evidence regarding how stakeholder definitions on quality vary across groups and the importance of involving country stakeholders in defining and measuring ECE quality. Results from research in this area can serve to inform the development of culturally appropriate measures of ECE quality.

2. Background

2.1. ECE quality

There is little doubt that ECE services can have positive effects on children's learning and development with the potential for long-term impacts. ECE is especially critical in LMIC where children face the greatest risks to development due to poor nutrition, inadequate stimulation, lack of health care, endemic disease and poverty (Britto et al., 2017). Teacher education and training, the physical environment, teacher-child interactions, curricula, the teachers' skill in scaffolding children's development, and individualized instruction all contribute to the quality of ECE (Britto et al., 2011; Burchinal, 2018). Rao et al. (2012) have found positive impacts on children's development in ECE programs with only basic provisions. Bietenbeck et al. (2019) as well as Martinez et al. (2012) have found similar positive impacts in some of the world's poorest countries, including in East Africa. Little research documents the quality of ECE in sub-Saharan Africa; however, existing research in the region has found variations across countries in areas such as teacher training, playground space, and room arrangement (Bidwell & Watine, 2014) and similarities in teaching strategies such as rote memorization (Rossiter et al., 2018) and child engagement (RTI, 2018). In addition, work in this area has raised issues related to using culturally-appropriate measures to assess quality along with including local stakeholders in the measure adaptation process have been raised (Raikes et al., 2019).

Qualitative studies on ECE in LMIC settings are limited and more studies are needed to understand the complex issues at play in implementing and improving ECE quality. Qualitative interviews can inform context, understanding, pluralism, and expression (Sutton, 1993). Qualitative interviews can also inform better measurement development, identify avenues for improving quality, and strengthen data use. Examining how quality is constructed by various Sub-Saharan African stakeholders can inform decisions about policies, standards, monitoring, teacher preparation, and quality improvement initiatives. Qualitative findings can strengthen this decision-making process by ensuring that systems account for current beliefs and conditions and align these definitions of quality with measures and supports for quality. Stakeholders include community members, children, families, teachers, school administration, researchers, university and training institute staff,

ministry officials, non-government organizations and others. These stakeholders play a critical role in advocating for ECE quality and serve to build the relationships between the programs, families and communities. Because individuals in many different roles engage in ECE systems—teachers, families, school administrators, curriculum developers, ministry of education staff, trainers—each person may construct quality differently. It is important that their voices are heard (Chappell & Szente, 2019) so that the ECE programs reflect their unique needs, contributions and beliefs. Qualitative research enables getting at participants' perceptions (Patton, 2002). Such research on ECE quality in LMIC, particularly in Sub-Saharan Africa (SSA), is limited but growing (e.g. Chappell & Szente, 2019; Wilinski, 2018). We summarize the limited qualitative research in SSA here to provide an overview of some of the common themes that have begun to emerge.

Tandika (2015) used semi-structured interviews in a socio-cultural theoretical framework to explore how teachers, parents, curriculum developers, policymakers, and school inspectors in Tanzania defined quality in pre-primary education. Tandika found three sub-themes of quality: expectations (what stakeholders believed children should get out of pre-primary education), the practice/process of quality (including teaching practices and environment) and program structure (teacher qualifications, program services and infrastructure). Tandika (2015) observed differences between stakeholder groups and noted influences of Tanzanian education policy and guidelines. Specifically, the importance of children learning the 3 R's (reading, writing, and arithmetic) reflected the emphasis placed on these skills in government guidance documents.

Wilinski and her colleagues (Wilinski et al., 2016; Wilinski, 2018) have published qualitative research on early childhood work in Tanzania. They examined the students who were enrolled in the first cohort of the Tanzanian pre-primary education diploma program into their first post-graduation teaching placements and found a lack of public understanding that pre-primary teachers need specialized training in order to provide quality care for young children. For example, those who are not teachers feel that pre-primary teachers just play with children so there is no need for training. In addition, resources for training programs are lacking and are not adequate to fully support the field (Wilinski et al., 2016). Wilinski's 2018 work used a critical narrative analysis to look at the intersection of teachers' stories with institutional discourses. She describes critical moments which included aspirations during secondary school, the decision to apply to Teacher Training College, choosing pre-primary education, admission to the program and arrival at the college, "being convinced, ongoing experience in [the Teacher Training College], and future selves" (Wilinski, 2018, p. 36).

Parents have also provided insight into their perceptions of pre-primary quality through qualitative research in Ghana (Kabay et al., 2017). Parents spoke of the quality indicators that have demonstrated associations with the academic and social success of children who attended pre-primary schools including: play, an emphasis on academic skills, the age of the child, instruction in the child's primary language, and family migration throughout the year (Kabay et al., 2017). In Côte d'Ivoire, parents expressed concern about the quality of education noting a lack of teacher presence and training (Madaio et al., 2019).

2.2. Bronfenbrenner's ecological systems model

Studies of human behavior can be contextualized by Bronfenbrenner's (1979) ecological systems model (Onwuegbuzie et al., 2013; see Fig. 1). Bronfenbrenner (1979) asserted that the developing child is influenced in lasting ways by their evolving interaction with their environment. The environment consists of a nested set of structures and the relationships between those structures. This model is relevant here because this study looks at multiple levels of the learning child's environment and the model helps clarify different stakeholders' understandings of quality in ECE settings. One way of thinking about Bronfenbrenner's ecological systems model is that the different levels help to think about where quality inputs need to occur, or how to target

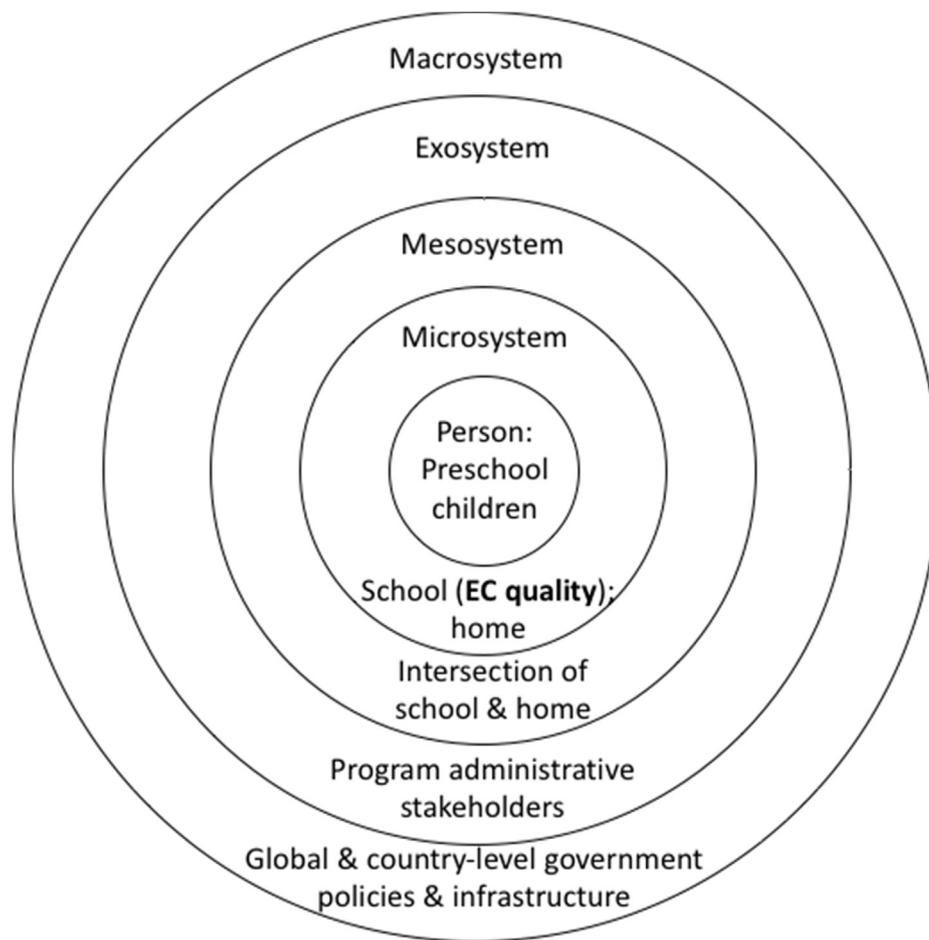


Fig. 1. ECE quality in ecological systems context (Visual representation of Bronfenbrenner, 1979).

quality improvement efforts and policymaking. It is also possible that stakeholders across levels of the system will view quality differently. For this study, we define preschool children as persons of interest because of their engagement within ECE settings. School and home form the microsystem. The intersection of school and home forms the mesosystem. Teachers, who influence the quality of early childhood education and with whom children directly interact, are part of children's microsystem and mesosystem. Interviewing program administrative stakeholders then involves the exosystem with which children do not interact but teachers do, and which influences children's lives. Country-level cultural values and policies as a whole then comprise the macrosystem, as do global policies and organizations. Most studies focus on one of these particular systems (Onwuegbuzie et al., 2013). Because of the different stakeholder groups included, the Tanzanian data of this study focuses on the macrosystem (country-level) and exosystem (program administrators) and the Basotho focuses on the macrosystem, exosystem and microsystem (teachers).

Based on Bronfenbrenner (1979), the exosystem and administrative stakeholders may then relate to various local country stakeholders, results of previous measurement such as the MELQO initiative, and government support. Related to the mesosystem, Dalli et al. (2012) stated that the meaning of "early childhood professionalism ... appears to be embedded in local contexts, visible in relational interactions, ethical and political in nature, and involving multiple layers of knowledge, judgement, and influences from the broader societal context" (p. 5). Britto et al. (2011) provide a cross-cutting ecological model with levels that include systems, settings, adult targets of change, and ultimate target of change (children's well-being). The cross-cutting dimensions include alignment with community and societal values and principles; resource

levels and distribution; physical and spatial characteristics; leadership and management; and interactions and communications.

2.3. Country selection and early childhood contexts

Tanzania and Lesotho were selected because they had recently engaged in quantitative studies of quality and early learning development, and because both countries were interested in building national measures of quality and early learning and development. The U.S.-based research team had developed partnerships within each country and had knowledge of the context and issues that arose during these activities. The qualitative piece grew out of these experiences in an attempt to better understand the various priorities regarding early childhood quality, as well as the perceived disconnects between existing conditions, policy, priorities, and supports. While the country selection was based, in part, on pragmatic considerations and research team experiences, the decision to report combined findings was made because of the similarities and differences in contexts, government policies and support, and because stakeholder groups allowed for a richer understanding of quality indicators and examples of where government support did and did not align. While these countries represent a convenience sample, their experiences and ECE conditions are similar to many other countries in the region and lessons learned from their experiences can be helpful in understanding how ECE quality may be addressed in other countries.

It is important to have a broad understanding of the ECE context within the study countries, the macrosystem in our theoretical framework, as this has implications for other levels of the system. We begin with an overview of the Tanzanian context, followed by an overview of the Lesotho context including key events in recent history related to the

establishment of early childhood systems, government policies and the development of supports for early childhood including ECE degree programs, guidelines, standards and curricula development. As we consider the country context, it is important to keep in mind what was happening at the global level, as described in the introduction, because these activities can influence country decisions (see Baum et al., 2019 for specific examples of how this has happened in Tanzania). Table 1 summarizes the existing policies and government support for ECE quality in Tanzania and Lesotho.

2.3.1. Tanzania

In 2014, the Tanzanian government created a new education policy with one year of free, compulsory pre-primary education (United Republic of Tanzania (URT), 2014). The focus of the policy is on increasing enrollment and does not provide sufficient attention to quality (Ndijuye & Rao, 2018). As the policy changes went into effect, enrollment rates rose. In 2014, the gross enrollment rate in Tanzania was 33%; however, by 2018, Tanzania’s enrollment rate had risen to 41% (UIS, 2019a). In 2015, the Tanzanian Pre-primary Curriculum (Tanzania Institute of Education, 2014a) was developed to align with the goals of the 2014 education policy and focused on academic content (the 3 R’s) and includes teachers guides with instructional practices. In 2015, the Guide for Pre-Primary Schools (Tanzania Institute of Education, 2014b) set quality standards for all public and private pre-primary programs including building, structural, administrative requirements and teacher qualifications. Pre-primary teachers are required to complete a 2-year pre-service teaching certificate program and currently only 75.8% of teachers are qualified, resulting in a qualified teacher to student ratio of 1:171 (compared to the standard set of 1:25; Data from the Basic Education

Statistics in Tanzania report (BEST); URT, 2018; Ndibalema, 2019). The Quality Assurance Division is responsible for inspecting schools to ensure they are in compliance with regulations.

Recent research on ECE quality in Tanzania has shown low rates of quality across multiple indicators. A 2017 study on the quality of ECE classrooms (Weatherholt, 2018; Anderson & Sayre, 2016) looked at various indicators of quality and found ECE programs had few materials and teachers rarely employed play-based teaching practices (including individualizing instruction for children and engaging children in discussions). There exist gaps between urban and rural classrooms on achieving key policy standard indicators including space, group size, materials and teacher qualifications (Mtahabwa & Rao, 2010). While the government guidance appears to be in place, the current quality conditions in Tanzania do not yet reflect those priorities.

2.3.2. Lesotho

Most recent of the major activities in the development of the ECE system in Lesotho include the 2013 National Policy for Integrated Early Childhood Care and Development (IECCD; Kingdom of Lesotho, 2013a) and the 2013 National Strategic Plan for IECCD (Kingdom of Lesotho, 2013b) which prioritize the access for all children to quality early childhood development, care, and pre-primary education. However, unlike Tanzania, there are no specific policies making pre-primary compulsory, mandating that public primary schools have a pre-primary classroom or that pre-primary teachers meet specific education or training criteria. A pre-primary curriculum was developed in 2005 but is not widely used (Davis et al., 2018). ECE is delivered using three forms: reception classes (public, government funded classrooms within public primary schools), ECE centers (privately owned, fee-based programs), and community- or home-based services (government funded). Enrollment in ECE has been relatively stable over the last few years, with enrollment rates of 37% in 2010 and 39% in 2016 (UIS, 2019b).

While Lesotho has made efforts to increase the access to ECE, quality guidelines and supports are lacking. The one available ECE certificate program has the capacity to admit about 40 students a year. In each district of the country, one national teacher trainer is available but has limited resources and is not able to support all of the pre-primary programs. In addition, Lesotho’s program standards to register with the ministry include administrative, building and facility requirements but less than 1% of programs are officially registered with the ministry, including government funded reception classes (Davis et al., 2018). Paper surveys requesting child demographic information are completed by ECE programs annually and entered into a database for reporting. However, many programs have not submitted information, and those who do submit information do not always do so on a regular basis nor are the data confirmed by monitoring visits. Lesotho also has an education management system (EMIS) where information about ECE programs is recorded and maintained by district managers for reporting but does not include detailed quality indicators.

Current data on the status of ECE quality and progress towards implementing policy guidelines is limited. A 2017 study (Davis et al., 2018) found low levels of quality across indicators with teachers having low levels of education, few attending training in the previous year, few teachers implementing literacy activities and most teachers were using rote teaching practices in the classroom. Classroom infrastructure and materials were lacking throughout the country with 60% of the schools having a sanitary source of water, but over 70% did not have soap and running water for children to wash their hands. In addition, almost half (48%) of schools did not have toilets for children to use.

3. The present study

The present study contributes to the literature on ECE quality and locally-relevant measurement. The study is a multiple qualitative case exploring how country-level (government staff) stakeholders in Tanzania, and country-level program administrators and teachers in

Table 1
Overview of country contexts and government support for ECE in Lesotho and Tanzania.

Government guidance for ECE	Tanzania	Lesotho
ECE Policies	<ul style="list-style-type: none"> ● 2015 most recent education policy ● One-year, free, compulsory pre-primary ● All public primary schools required to have at least one pre-primary classroom ● All public pre-primary classrooms required to have one qualified teacher (2-year certificate) 	<ul style="list-style-type: none"> ● 2013 most recent education policy ● Policy does not make pre-primary compulsory ● Policy does not list specific teacher qualifications
ECE quality standards or guidelines	<ul style="list-style-type: none"> ● 2015 Guide for Pre-primary Schools ● Standards for public and private programs 	<ul style="list-style-type: none"> ● Minimal program standards to become registered with the Ministry of Education
National ECE curriculum	<ul style="list-style-type: none"> ● Developed in 2015 ● “3 R’s” focus (reading, writing, arithmetic) ● Guides include instructional practices 	<ul style="list-style-type: none"> ● Developed in 2005 ● Supplemental materials produced by NGOs include integrated approach and practices with guidance
Quality monitoring tools	<ul style="list-style-type: none"> ● Responsibility of the Quality Assurance Division 	<ul style="list-style-type: none"> ● Self-report form with items on building/facilities, child demographics and teacher qualifications
Early Learning Developmental Standards	<ul style="list-style-type: none"> ● None 	<ul style="list-style-type: none"> ● Developed, recently in the process of being age-validated but not implemented
ECE degree or certification programs	<ul style="list-style-type: none"> ● 2-year certificate programs (Grade A) 	<ul style="list-style-type: none"> ● Certificate of ECE program at one institution with capacity for 40 students per cohort

Lesotho define quality ECE, with a specific purpose on understanding how this definition could support the development of locally relevant measurement tools. The study also explores what these stakeholders identify as the challenges and support needed and how data could play a role in ECE quality improvement. More broadly, the study explores how stakeholders' reported quality indicators align with government systems and support for ECE quality in Tanzania and Lesotho. While the present study does not include all groups of stakeholders described in the first section, it provides information about the perceptions of a small sample of stakeholders in two country contexts. This serves as an initial step towards examining how stakeholders define quality and reflect on their country's current ECE landscape and what can be done to address ECE quality. In the limitations section of the paper, we highlight the need for additional work in this area to expand beyond the current project to include a broader range of stakeholders to more fully capture the variety on perceptions of these groups, which in turn can help clarify locally relevant definitions of quality to inform measurement. Through interviews, the study seeks to address the following research questions:

1. How do ECE stakeholders at various levels in Tanzania (government) and Lesotho (government and program) define quality? What do they see as key indicators of quality?
2. What do ECE stakeholders identify as necessary supports for ECE quality?
3. How do ECE stakeholders view current and potential monitoring and quality assurance practices in supporting quality improvements in ECE?
4. What government systems and supports do the stakeholders suggest could assist in achieving the identified quality indicators, given the current conditions of ECE quality?

3.1. Study design and research team

This study takes a multiple or collective case design (see Merriam, 1998) bounded by the sets of Tanzanian and Lesotho ECE stakeholders. The Tanzanian case is holistic (see Yin, 2017) and consists only of government stakeholders (see Fig. 1) whereas the Lesotho case consists of three embedded analyses: teachers, school administrators, and government stakeholders (see Fig. 2). The multiple case design takes a nested generic qualitative approach (see Guetterman & Fetters, 2018 regarding nesting methods within a case study; see Percy et al., 2015 regarding generic qualitative research). Following Kahlke's (2014) distinction, the generic qualitative aspect of the study leans more toward a descriptive than an interpretive framework. The cases are of inherent interest because they describe the perceptions of various stakeholders and findings may inform ways to improve and support each country's ECE

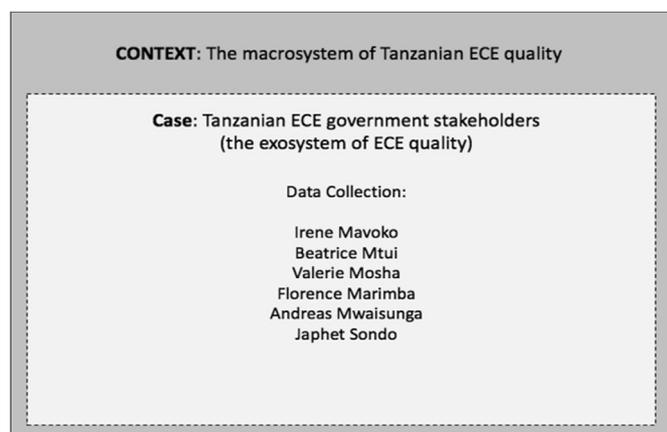


Fig. 2. Diagram of the Tanzanian holistic case.

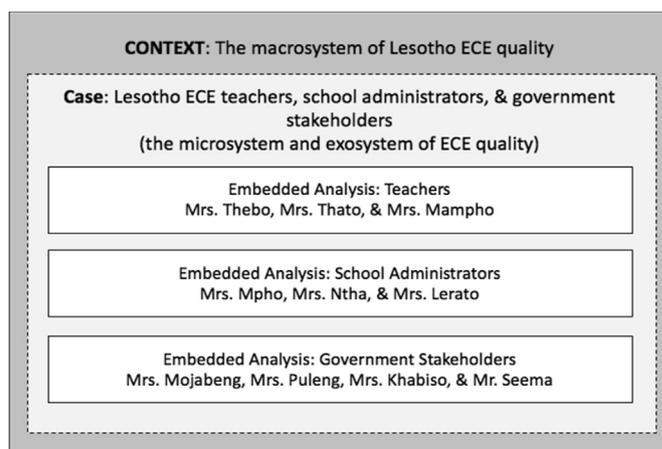


Fig. 3. Diagram of the Lesotho case relative to its context and embedded analysis.

programs through specific recommendations shared by participants. However, the cases also elucidate general problems such as a lack of resources and of how stakeholders define ECE quality that may result in possible applications in other parts of Sub-Saharan Africa that share similar contexts and challenges (see Fig. 3).

The research team for this ECE qualitative study consisted of seven members. The first co-principal investigator has a PhD in early childhood education. The second co-principal investigator is a public health professor with a PhD in developmental psychology. Both PIs have experience in SSA conducting research on ECE quality and in measurement development. The Tanzanian researcher was a consultant with a master's degree in education and quantitative research experience. The Basotho researchers both held master's degrees (one in Demography and one in Nutrition and Health) and both had experience conducting qualitative and quantitative interviews and analyzing data. The qualitative consultant was an independent consultant with a PhD in educational psychology research methods. The graduate research assistant held a master's degree in early childhood education and was pursuing a PhD in the same area. The co-PIs, qualitative consultant, and graduate research assistant are all White. The two co-PIs and graduate research assistant identify as U.S. American while the qualitative consultant identifies as transcultural American, given that she grew up in southern Africa as the daughter of American parents. The country researchers were native to Tanzania or Lesotho and were fluent in Kiswahili or Sesotho, respectively, and English. All members of the team are co-authors of the paper.

Because of the make-up of the team and the nature of the work, issues of privilege and power existed. We attempted to mitigate these issues by acknowledging our privilege and power issues within our research team and with participants, through cultural competence, discussions and decision-making, and having the data analysis and interpretation lead by the country consultants. These approaches were consistent with Fas-singer and Morrow's (2013) best practices in research for social justice. However, we acknowledge that while our intentions were to reduce these issues, our approach, methods, understanding and interpretation of the findings remain subject to power and privilege.

3.2. Participants and procedures

Prior to recruiting participants, a letter of support from the Lesotho Ministry of Education and Training was obtained so that the Mosotho interviewer could request interviews from ECE program administrators and teachers. The Tanzanian Ministry of Education, Science and Technology was provided a letter describing the study so that interviews with government-level staff could be conducted. Because formal approval with a letter of support was not received from the Tanzania Ministry of Education, only government-level stakeholders could be recruited

resulting in the difference in number and stakeholder groups between the two countries. The second co-PI's institution reviewed the project and determined it to be exempt under 45 CFR 46:101b, category 2.

The recruitment process for both countries was similar in that a general description of the project was developed, translated, and shared with potential study participants via email or phone. For the Tanzanian case, the co-PI and the Tanzanian researcher used publicly available information on government websites to identify potential participants. We targeted staff with responsibilities related to the early childhood education sector, including Ministry of Education staff, curriculum developers, teacher trainers, and school inspectors. The Tanzanian researcher contacted potential participants via phone and email, gave them an overview of the project and invited them to participate. Among those who agreed to participate, the Tanzanian researcher scheduled a time for the interview.

For the Lesotho case, the first co-PI and initial Mosotho researcher identified the Ministry of Education staff, teacher trainers, and school inspectors. ECE programs that represented both public (government-run and funded, with no fees for families, called reception classes) and privately owned, fee-based programs in two districts were recruited from a list of programs who had recently participated in a quantitative research project conducted by the World Bank and Lesotho Ministry of Education. The Mosotho interviewer contacted potential participants via phone and email and invited them to participate. The participants were not randomly selected nor representative as they tended to have higher levels of education or training and more experience than average based on previous studies. All persons recruited for the study agreed to participate, and the initial Lesotho researcher scheduled a time for the interview.

The study included six participants from Tanzania and 10 from Lesotho. These participants represented different levels of ECE stakeholders: country-level stakeholders in Tanzania and Lesotho (Ministry or government staff, teacher trainers or lectures), ECE program administrators in Lesotho (school directors, owners or head teachers) and ECE classroom teachers in Lesotho. All participants were given pseudonyms by the country researchers. Because of cultural norms, Tanzanian participants were given first and last names and referred to by their first names, and Basotho participants were given last names and referred to by Mrs. or Mr. and the last name.

Among the six Tanzanian participants, four were female and five were over age 45. They had an average of 15 years of teaching experience (range 0–27 years). 67% had a bachelor's degree and 33% had a master's degree, and they had been in their current positions for an average of nine (range 5–18) years.

Among the ten Basotho participants nine were female and seven were over age 45. They had an average of just under 15 years of teaching

experience (range 5–33 years). Basotho participants' level of education varied from a Primary School Leaving Certificate to a master's degree and participants in their current positions for an average of just over seven (range 1–12) years. Table 2 summarizes key demographic information.

The interview protocols were developed in coordination between the two co-PIs, qualitative consultant, and country researchers to ensure that the items were appropriate and captured the same concepts across countries. A draft of one set of questions was developed first and then adapted for the different levels of stakeholders, resulting in slightly different questions for program administrators (such as head directors or school directors), teachers, trainers, inspectors/quality assurance officers, and Ministry of Education staff but all with questions around: what is quality/how would you define a quality program, what are the barriers for achieving quality, what supports are needed to improve quality, how are data currently being collected and used, and what data could be used to improve quality. The initial drafts were in English and the team (including the country researchers) had several conversations about the focus of the questions, wording and potential prompts to include to elicit additional information from participants. Demographic questions were created and were the same across stakeholder and country versions to be able to collect basic information across all participants. Demographic questions included gender, age range, teaching experience, education, current job title, and years in current role. The country researchers then translated the questions.

The country researchers conducted interviews in person in Kiswahili, Sesotho or English, or a mix of those languages, whichever language was preferred by the participants and using the interview protocol that matched the participant's position. Interviews were semi-structured and were audio recorded. The Tanzanian researcher then transcribed the Tanzanian interviews verbatim. The initial Basotho researcher transcribed the teacher and school administrator interviews verbatim and summarized the four country-level interviews using the audio files (without first completing a transcription). The second Basotho researcher summarized the teacher and school administrator interviews using the transcripts and audio files. Some interviews were translated into English and, because the research team members did not speak all the languages, written summaries were produced in English as a way to identify themes and synthesize across interviews. Discussions within the research team served to review the summaries and identify themes, clarify how they were defined and to determine which themes across countries were comparable and could therefore be collapsed. These summaries helped to form the basis of the findings and served to inform conversations about themes with the first PI and qualitative consultant.

Table 2
Overview of interview participants.

Pseudonym	Gender	Age range	Teaching experience (any level)	Education	Job	Years at job
Tanzania Participants						
Irene Mavoko	F	35–44	10 years	BA in Education	Quality assurance officer	5 years
Beatrice Mtui	F	Over 45	13 years	MA in Education	Quality assurance officer	9 years
Valerie Mosha	F	Over 45	20 years	BA in ECE	Curriculum developer	8 years
Florence Marimba	F	Over 45	none	Post Graduate diploma in Education	Curriculum developer	18 years
Andreas Mwaisunga	M	Over 45	20 years	MA in upper primary school education	Principal education officer	10 years
Japhet Sondo	M	Over 45	27 years	BA in Linguistics	Ministry of Education official	4 years
Lesotho Participants						
Mrs. Tebo	F	18–24 years old	5 years	Cambridge Overseas School Certificate	Teacher	5 years
Mrs. Thato	F	25–34 years old	7 years	Certificate of ECE	Teacher	7 years
Mrs. Mampho	F	Over 45	7 years	Junior Certificate	Teacher	4 years
Mrs. Mpho	F	25–34 years old	11 years	Diploma in pre-primary education	School Administrator	11 years
Mrs. Ntha	F	Over 45	33 years	Lesotho General Certificate of Secondary Education	School Administrator	12 years
Mrs. Lerato	F	Over 45	20 years	Primary School Leaving Certificate	School Administrator	10 years
Mrs. Mojabeng	F	Over 45	14 years	BA in Education	ECCD Manager	1 year
Mrs. Puleng	F	Over 45	19 years	BA in Education	ECCD Inspector	3 years
Mrs. Khabiso	F	Over 45	8 years	BA in Education	National Teacher Trainer	11 years
Mr. Seema	M	Over 45	25 years	MA in ECE	Lecturer	10 years

3.3. Data analysis process

During and after completion of the interviews in each country, the first co-PI, country researchers, and qualitative consultant met virtually as a team approximately every two to three weeks to discuss the country researchers' impressions of the interviews and to co-construct meaning. The qualitative consultant also maintained a log with reflective notes after selected meetings and country researchers wrote extensive memos.

The analysis process generally involved transcription, coding, and writing English summaries of interviews. The qualitative consultant initially provided training on basic transcription and data management and analysis tasks via MAXQDA. The Tanzanian researcher and Mosotho interviewer transcribed the interviews and provided pseudonyms for participants. The Tanzanian and Basotho interviewers maintained separate Microsoft Word logs that identified pseudonyms corresponding with actual names. The first co-PI initially drafted an English list of 34 pre-conceived (*a priori*) codes, based on the quality literature cited in the introduction and previous experiences in these countries (for example, teacher education/experience, materials, classroom space, funding, use of curriculum and need to revise, collecting data on child development). The *a priori* codes included definitions and examples, primarily related to teaching practices and materials. The qualitative consultant expanded and reorganized the list of themes, codes, sub-codes, definitions and examples. The country researchers then translated the codes. Codes were entered into MAXQDA and country researchers began coding, creating new codes, as needed. Inductive codes varied by country, for example, unique codes were added to the Lesotho database around supporting programs to become registered with the ministry, collecting data on child health, the use of learning corners and recognizing degrees from other countries. Because we did not have multiple coders code the same segments, we did not establish reliability between coders. We used team discussions, translations of transcripts and summaries to support consistency of coding and determining codes that were comparable across countries. Once all coding was complete, similar codes were collapsed, unused *a priori* codes were removed, and codes were organized into the four overarching themes.

After all six Tanzanian interviews had been coded, the Tanzanian researcher wrote English summaries of each interview and the qualitative consultant gave iterative feedback (see Saletta et al., 2020 concerning micro-narratives). The summaries served to describe the interviews in a condensed fashion. We chose to italicize translated segments and show parenthetical Kiswahili segments in quotation marks. The Mosotho interviewer transcribed audio-files and assigned codes following a similar process as the Tanzanian work resulting in the teacher and administrator interviews being transcribed verbatim and coded in MAXQDA with a different set of codes than the final Lesotho code frame. The Basotho interviewer and second analyst worked directly from the coded transcripts and audio recordings for the teacher and school administrator and audio-recordings for the country-level stakeholders to write summaries. The Mosotho analyst wrote English summaries of each teacher interview by listening directly to the audio recordings and reviewing the coded transcripts from the initial Mosotho interviewer. The Mosotho interviewer wrote English summaries of administrator interviews from the audio recordings. The process of summarizing interviews provided insights about the meaning of quality in the eyes of participants. They provided the basis for conversations with the country consultants and first co-PI and qualitative consultant around what themes were emerging and to explore nuanced meanings and context. For an example from the Tanzanian interviews and summary, several stakeholders talked about the plight of the teacher and feelings of not being supported (low pay, little respect) which could then impact the teachers' negative interactions with children and relationships with families. The Tanzanian consultant talked about recent news coverage of a teacher who believed a child had stolen from her and killed the child. This discussion and background helped illustrate the tension for teachers and conditions. For an example from the Lesotho interviews, stakeholders

talked about paying fees as a form of family involvement through commitment to the school.

Summaries also enabled reducing the volume of transcripts and synthesizing Kiswahili and Sesotho interview findings in English. Data were analyzed across the two country contexts by comparing cross-interview summaries and through cross-stakeholder themes. Similarities across themes were noted and themes were collapsed and combined after discussions to confirm they were expressing similar ideas. Themes that were unique and unique to one country were kept. For example, teacher has an education (degree or certificate) and knowledge in ECE was only relevant in Tanzania where teachers have more access to formal education. The team identified the overarching themes (described in the findings) and which themes were assigned to each. For example, discussion of building infrastructure was in common across Tanzania and Lesotho, with Tanzanian participants mentioning overcrowding and Lesotho participants mentioning the need for sufficient space.

Five of six Tanzanian interviews were in Kiswahili and eight of 10 Lesotho interviews were in Sesotho. Summarizing linguistic considerations, translation from Kiswahili or Sesotho to English took place at the coding stage and more extensively at the summary-writing stage. We allowed translation to flow naturally without determining *a priori* when it would take place. The Tanzanian researcher pointed out that wording of the English interview could not be taken at face value because the participant (Irene) was not speaking in her native language. For example, when Irene said, "parents are despising teachers," the Tanzanian researcher sensed that the connotation may have been less strong than would be the case for a native English speaker.

4. Findings

We provide an overview of the findings grouped by themes and described by country and stakeholder groups. Table 3 summarizes the quality themes identified, which subcases mentioned those themes, and exemplar quotations or translations of quotations of select themes. Table 3 also illustrates that, while both countries had themes in each of the overarching themes, within each theme, we see examples of specific quality indicators that are reported by multiple groups (parent involvement in children's learning) and ones that are unique to one country (only Tanzanian reported teacher having an ECE degree) or stakeholder group (only Basotho program administrators reported teachers being physically fit). It should be noted that these are the themes that arose from the interviews, rather than asking stakeholders which indicators they would endorse from a list. In this way, we are able to hear from the stakeholders those indicators of quality which were forefront in their minds and also see differences in indicators that were mentioned by the different stakeholder groups. To do this, we describe the details from each theme that arose from the Tanzanian participants, then highlight additional or differing details from those themes from the Basotho participants including noting difference between the Basotho stakeholder groups. We note throughout if the theme was expressed by multiple stakeholders. Specific indicators only mentioned by one participant appear in Table 3 but are not discussed further in the text.

From all stakeholder groups, the essence of ECE quality was encapsulated in four overarching themes: 1) *Teachers as knowledgeable and caring facilitators* (in the microsystem), which includes characteristics of a good teacher, teacher training and education, teaching methods and practices, and teaching domains that contributed to positive child outcomes. 2) *Families and community as partners* (in the mesosystem), covers the importance of strong relationships between teachers and families and how families and communities can engage with the ECE program. 3) *The classroom as a stimulating learning environment* (in the microsystem), encompasses classroom space, program features and materials needed to promote learning in children. 4) *The government's role in supporting ECE* (in the macrosystem), which incorporates monitoring and data use to inform and improve quality, and support for teacher education, teaching resources, and guidelines and funding. Participants shared their thoughts

Table 3
Quality stakeholder themes and exemplars.

Quality Theme	Asserted by				Select exemplar quotation ^a
	Tanzanian country- level	Basotho country- level	Basotho Program Administrators	Basotho Teachers	
Teachers as Knowledgeable and Caring Facilitators (Desired Teacher Characteristics and Teaching Practices = microsystem)					
Teacher has an education (degree or certificate) and knowledge in ECE	X				<p>“[Quality teachers have] knowledge about their teaching profession ... teaching methods.”</p> <p>-Florence</p>
Teacher is trained/regularly participates in training	X	X	X	X	<p>“[The teacher should] be trained and should regularly attend training workshops whenever they are available.” -Mrs. Mampho</p>
Experience and skill (not specific to training or education)	X			X	<p>“[A good teacher is one that] is able to fully engage children in the entire act of teaching and learning.” -Valerie</p>
Disposition/temperament (i.e., loves children, friendly, motivated, caring)	X	X		X	<p>“Teaching and care go together and cannot be separated.” -Valerie</p>
Physically fit/healthy/capable of performing duties			X		<p>“[A good quality pre-primary teacher is one who] is physically and mentally fit and can actively play with the children.” -Mrs. Mpho</p>
Be capable of and creative in the development of materials	X		X	X	<p>“When you are a preschool teacher, for you to do a good job, you have to be ‘mamasianoke’ [a bird that picks up anything in its way]. Wherever you go, whatever you see that is useful, just pick it up, don’t worry what people will think about you.” – Mrs. Lerato</p>
Positive interactions with children	X	X		X	<p>“[When] a teacher is rude, not friendly, there won’t be quality education. There won’t be learning.” -Irene</p>
Holistic approach (all children’s needs are attended to)	X			X	<p>“[A child should not know] how to write but be dirty or incapable of tying their shoes.” -Florence</p>
Teach through engaging children in discussion, use of materials, play	X	X	X	X	<p>“In the classroom, the teacher engages the children through ‘answering and questioning’, discuss with them, explains what they will learn that day and establishes what they already know about the topic.” -Mrs. Mpho</p> <p>“They need to see, they need to handle and manipulate, explore.” -Mr. Seema</p>
Have good relationships with families and engage them	X			X	<p>“When parents do not cooperate, the teacher should not give up on them but should patiently</p>

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Table 3 (continued)

Quality Theme	Asserted by				Select exemplar quotation ^a
	Tanzanian country-level	Basotho country-level	Basotho Program Administrators	Basotho Teachers	
Demonstrate concepts to children/provide a model			X	X	talk to them until they understand the issue being raised.” -Mrs. Tebo “Teacher teaches through demonstrating so that the children can also do the activities taught.” -Mrs. Mampho
Planning/organization (syllabus or lesson plan/use of theme, use of a curriculum)	X	X	X	X	“[A good quality teacher’s] lesson plan should have a target for the day which the teacher must use all means possible to ensure that it is achieved.” -Mrs. Mpho
Teach academic content (math, reading, science)	X	X	X	X	“The expectation is that the teacher will have such interactions that will help the child to have what one can call building blocks, for language, literacy, numeracy, and of-course even life-skills in general.” -Mr. Seema
Teach social content (social skills, self-care, life skills)	X	X	X	X	“We need to see them socialize with others, playing and living in harmony because that is when we build them up to be good citizens or members of society.” -Irene
Support spiritual growth/spiritual education		X		X	“[For children’s spiritual growth] I read the children the scripture in the morning and teach them to pray.” – Mrs. Tebo
Reaches/individualize for each child				X	“Where necessary, the teacher should guide and facilitate and give clues of what the children are expected to do.” -Mrs. Tebo
Have children show they have learned the concepts	X			X	“When we say learning should take place, it means we expect this kid to be competent. If it is in counting, we expect this kid to be counting comfortably. If it is reading, we expect this kid to read.” -Irene “A teacher’s role is to demonstrate and monitor and assess the children’s performance of the activities.” -Mrs. Thato
Families and Community as Partners (Desired Role of Families and Communities = mesosystem) Good relationships between teachers and families/community	X	X	X		“[Families and teachers can collaborate] beyond the academic and also in the care of the child and in understanding any problems that child may have.”

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Table 3 (continued)

Quality Theme	Asserted by				Select exemplar quotation ^a
	Tanzanian country-level	Basotho country-level	Basotho Program Administrators	Basotho Teachers	
					-Florence
Understand/value ECE	X	X			“Parents do not understand [but need to] that pre-primary education is very important before kids enter into first grade.” -Andreas
Families should be aware of and involved in children’s learning	X	X	X	X	“If a child is told to read, then a parent must also read with that child in order to create an interest in reading.” -Japhet
Families should assist the program (with materials, paying fees, volunteering, etc.)	X	X	X	X	“Elders in a village can be recruited to tell kids good stories [as part of their education]. Or a parent who has certain expertise can also teach students.”
					-Florence
Families should help children be ready to learn/prepare for school (feed, cloth, transport)	X		X	X	“They should at least organize themselves and help somehow to construct some of the things that they are capable.” -Irene
					“Parents’ responsibility is to make sure that the child leaves home well-groomed, healthy, with good food to eat to be ready for school.” – Mrs. Tebo
The Classroom as a Stimulating Learning Environment (Desired Building, Infrastructure, and Materials = microsystem)					
Sufficient space/buildings (not overcrowded)	X	X	X	X	
Learning materials/teaching aids	X	X	X	X	“The classroom should have different types of teaching aids and materials and these should [be used to] instruct the child to do different things in order to unearth [the child’s] natural gifts and talents.” -Beatrice
Inviting environment (colorful, wall displays, arrangement, organized)	X	X	X	X	“You see [a pre-primary school], ... you know ‘ah, this is a pre-primary school!’ The classes are decorated with a lot of teaching aids, [and] letters. Ideally ... a kid will be attracted [to the classroom].” -Irene
Learning corners (areas with materials organized by content)		X	X	X	“[The classroom] should have areas that is corners, these areas are used for teaching. There is a book area ... if the topic was on wild animals when the children get to the book corner there should be books that show them animals ... the artwork should be related to the topic of the day ... in this area they ‘draw’.” -Mrs. Mpho
Toilet, water, safety indicators, food program	X	X	X	X	“Schools [currently] lack enough infrastructure [and] social services like water, electricity, and food.”

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Table 3 (continued)

Quality Theme	Asserted by				Select exemplar quotation ^a
	Tanzanian country-level	Basotho country-level	Basotho Program Administrators	Basotho Teachers	
- Andreas					
The Government's Role in Supporting ECE (Desired Administrative and Government Support including data needs and use = macrosystem)					
Increase pre-service degree programs		X	X		“There are simply not enough teachers who are educated and trained to teach pre-primary. As a result of this, you find many teachers who just teach from experience or from the short trainings they get while they are already on the job.” -Valerie
Pay teachers good salaries	X	X	X		“The [teacher] salary is low ... The salary is not enough.” - Irene
Provide regular (free) training	X	X	X	X	“Where they have to pay for workshops, teachers do not attend.” -Mrs. Ntha
Accept/recognize degrees received from other countries			X		“Some of the teachers went for further studies and went up to level 3 and upon completion were told that their qualifications are not recognized ... and remain unemployed.” -Mrs. Mpho
Educate communities & families on the importance of ECE	X	X		X	“[Families] need to be sensitized on the importance of pre-primary education through workshops.” -Mrs. Thato
Provide funding for building, infrastructure and materials	X	X		X	“It is not that the money is there but supplies cannot be purchased, it is that there are no funds at all.” -Beatrice
Develop/revise and keep current a national curriculum with teaching guides		X	X	X	“The Ministry should revise this curriculum afresh. There are some topics that I think should be reduced ... because it is a very old curriculum.” – Mrs. Mpho
Conduct regular monitoring visits followed by feedback and support for improvements	X	X	X		“Let's take it as a mirror, as we, as the ministry, looking at ourselves in the mirror, eh, what do I have here, I don't have this, where do I have to improve?” -Mrs. Puleng
Collect data on building, materials and infrastructure so needs can be addressed	X	X	X		“The information collected [on buildings and materials] will inform them [the ministry] of the needs for ECCD facilities especially in the remote rural areas to improve in those areas.” – Mrs. Mojabeng
Collect data on teacher-child interactions and teaching practices	X	X		X	

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Table 3 (continued)

Quality Theme	Asserted by				Select exemplar quotation ^a
	Tanzanian country-level	Basotho country-level	Basotho Program Administrators	Basotho Teachers	
Collect data on child development/abilities to inform teaching	X				<p>“[It is important to gather data on] the interaction between the teachers and students, how well the teacher is able to control the classroom, and the methods the teacher uses for teaching and learning.” - Valerie</p> <p>“Every Tanzanian should know at least how to read, write, and count. So the figures [data], the number of those who are completing the standard is very important.” - Irene</p>
Collect data on home/family and child health		X	X	X	<p>“This information [child health and information on parents] is useful for teaching planning and preparations in order to ensure that teaching is aligned to children’s needs and abilities.” -Mrs. Thato</p>
Regional/international benchmarking	X	X			<p>“Tanzania often benchmarks itself with the surrounding “anglophone” countries like Zambia and Malawi in order to make comparisons to better itself, correct itself, fix itself, and see where it is making mistakes.”- Japhet</p>
Support programs in registering with the government		X	X		<p>“The registration requirements are challenging and are not easily achievable.” -Mrs. Mpho</p>

^a Text in italics has been translated from Kiswahili or Sesotho. Text in quotations was originally provided in English. Text in brackets [] were provided by the country researchers to clarify or give context to the quotation.

and described the *current conditions* of ECE programs in relation to these themes and quality indicators, *challenges* for implementing quality ECE and *recommendations for improving quality and support* and we summarize those for each of the four overarching themes.

4.1. Teachers as knowledgeable and caring facilitators (in the microsystem)

In all six Tanzanian interviews, quality in pre-primary education centered around teachers. The majority (80%) Tanzanian participants said that teachers needed to be motivated, and to have “*hearts that love children*”¹ (Andreas) to ensure quality. Participants reported that pre-primary teacher motivation was a major challenge, as many teachers enter the sector as a last resort, after they have failed everything else, with Florence saying: “*you have not gotten into anything else, how can you also not get into pre-primary education?*” implying that anyone can be a pre-primary teacher (consistent with findings from Wilinski, 2018). All participants stated that teachers should be qualified and educated in early childhood education. Two interviewees remarked on the importance of having a trained teacher who uses her training to implement a curriculum and facilitate learning.

Quality Tanzanian teacher practices reported by 80 percent of the participants included engaging children through play and discussion and

having positive interactions with children and a teacher who “*involves the kids and who does not simply talk and expect the kids to listen*” (Florence). Florence also highlighted the importance of teachers having “*two-way interactions with their students, and [having] an activity based or play-based teaching method.*” Quality teaching engages children fully and holistically which Beatrice described as children “*sing[ing], us[ing] their hands, jump [ing], scrub[b]ing, driv[ing] toy cars, and [doing] anything that allows them to use their body.*” In addition to the teaching practices needing to have a quality ECE program, 80 percent of participants described the skills children should learn, and that are seen as governmental and parental priorities. These included early math and literacy, arts, health, environmental education, physical development and social skills. In addition to the 3 Rs (reading, writing and arithmetic), children should socialize with other children. Learning through the use of concrete objects and play was also mentioned frequently along with specific examples of skills children should be learning in ECE to prepare them for primary school and to be “good citizens or members of society” (Irene). Additionally, half the participants felt that children must also be socially prepared to go into grade one and be able to manage their personal presentation (e.g. tie their shoes and blow their nose). Poor quality leads to poor learning outcomes and was described as “talents and natural gifts are unable to be unearthed” (Irene), causing many to reach higher grades still unable to read or write.

Suggestions from the participants for improvements in Tanzanian pre-primary programs encompassed a wide range of strategies across the various needs. Teacher education, training and valuing ECE is paramount

¹ Italicized font indicates wording translated from Kiswahili or Sesotho.

to achieving quality. Training components consisting of both pre-service and in-service training should be expanded.

All Basotho stakeholder groups voiced the need for teachers to be educated and trained in early childhood. Basotho participants placed less emphasis on degree programs (with none of the Basotho participants saying a degree was an indicator of quality) and more on in-service training, which all Basotho stakeholder groups mentioned. This is likely reflective of the limited programs available and the reliance on training teachers who are already in the field. Specifically, all stakeholder groups said that teachers must be knowledgeable of all areas of child development, beyond the 3 R's and stakeholders defined this to include physical, social and emotional, language, moral and spiritual, and health. Teachers' love for children was also stated as an important characteristic according to two country-level and one teacher participant. Characteristics of a good teacher that were unique to the Basotho groups included teachers being physically fit and healthy to be able to perform their duties (as mentioned by Mrs. Mpho). As the availability of materials is limited, teachers being creative and capable of developing materials with limited resources was viewed as a needed attribute by one school administrator and one teacher.

Basotho stakeholders identified a similar set of desired teaching practices, which emphasized the need for teachers to teach children through play (as reported by over 50% of program administrators and teachers and one country-level stakeholder). As Mrs. Mpho stated, *"the teacher could start the lesson with the children sitting but ultimately she has to play."* This was echoed by others across all stakeholder groups. All Basotho stakeholder groups (over 50% of program administrators and teachers and one country-level stakeholder) said that teachers should employ a lesson plan, with one country-level and two school administrators stating that a curriculum should also be used. Content of what children are taught was consistent across groups, with participants believing that children should be taught academic and social skills. Spiritual growth was included in the teaching content by one Mosotho participant in the country-level group and one teacher. In addition, two participants in the teacher group stated that teachers needed to be able to meet the needs of all their children, with Mrs. Thato stating: *"[a quality teacher is one who] is able to reach every child ... through ensuring that she reaches every child in her lessons."*

For improving these teacher characteristics and teaching practices, challenges identified by all Basotho stakeholder groups related to the lack of training opportunities and an outdated national curriculum. Specifically, teachers noted that there are few training sessions offered and all stakeholder groups voiced the need for more such sessions. The need to increase the capacity of the certificate program was noted by country-level and administrative stakeholders and Mr. Seema noted that an ECE degree program was being developed to help address the need for more educated teachers. The national curriculum was viewed as an area for improvement. Mrs. Khabiso described the current curriculum as *"not appropriate to be used by teachers and Mrs. Mpho described it in this way: This curriculum is just a list which the teachers organize into different headings with no guidance ... a new teacher who is learning from others does not know the right thing to do and just follows the list."*

4.2. Families and community as partners (in the mesosystem)

Several Tanzanian interviewees noted good relationships between teachers and children and teachers and families as necessary for quality ECE. While respondents tended to use the term 'parents', we have used the term 'families' throughout to acknowledge that many children in these settings are cared for extended family members. We confirmed with our country research partners that the use of the term family was appropriate and captured the participants' intent and retained the term parent in the quotations. All Tanzanian participants agreed that families can and should be highly involved in pre-primary education. Teachers need the support and involvement of families because, as Japhet expressed: it is *"impossible to mobilize teachers without mobilizing parents."*

Families can be involved and collaborate with teachers to identify developmental delays, for example if the teacher discovers a health or developmental issue that affects a child's learning or if the family expresses concerns. Most participants also said families may contribute their own expertise in teaching and learning. For example, parents or other caregivers may be vital in providing kids with new experiences outside of the classroom or in storytelling. Teachers may ask families to provide food or make other contributions in areas the school cannot fully cover (such as supplying materials from home for activities). Families and teachers may work together to care for children beyond academics.

Specific areas of concern for Tanzanian participants regarding teacher and family relationships are the lack of support and respect for teachers from families and the community, and the lack of community and parent involvement. Families do not sit with their children or assist them in learning, according to Japhet. However, families blame teachers for poor outcomes and do not support teachers. The poor relationships and perceived lack of recognizing the importance of ECE contributes to the teacher's lack of motivation. Teachers, when faced with low family involvement, little government support and a sense of ECE not being valued, then wonder *"Who cares for me? Why should I care?"* (Irene).

All Basotho stakeholders felt that families should be aware of and involved in their children's learning and development and show support for the ECE program by making materials or volunteering in the classroom. The Basotho stakeholders seemed to hold a broader definition of parent involvement. Several Basotho stakeholders included families paying program fees as an example of family engagement. Although paying fees may not typically be considered an example of family involvement, the Basotho participants felt that this act demonstrated families' commitment to the school and that they valued the program and wanted to be a part of its success. All teachers and one school administrator added that families should prepare their children for learning by making sure children were fed, clothed, and transported to school.

Community and family involvement were cited as another challenge in Lesotho, with little support and engagement for ECE quality. Of the indicators listed in Table 3, many stakeholders stated that these were not currently in place, including family involvement in children's learning, involvement in the ECE program (including paying fees at private centers and helping prepare materials), and preparing children for learning by providing food and ensuring children went to school. Stakeholders in all groups remarked on a lack of family engagement in supporting their children's learning and the school. Mrs. Mpho shared that *"parents' involvement in pre-primary education remains a huge challenge as parents still do not understand that it is not the responsibility of only the teacher to see to it that the child is taught."* Mrs. Mampho voiced this feeling by saying *"parents generally do not provide for the children and are worse when it comes to payment of fees."* Increasing family involvement and community support was viewed as the responsibility of the teachers (who should reach out to parents and offer opportunities), program administrators (who should reach out to communities and partner with families), and the government (who should inform communities about the importance of ECE). This idea was summed up by Mrs. Mojabeng, who stated *"parents are expected and everybody else is expected to be taking part in the pre-primary school. The parents shouldn't be seen to be going when they are not satisfied with something [taking their children out of school and not communicating their dissatisfaction], they should be seen to be participating, when there is anything needed and the teacher or one who owns the preschool, should be communicating with parents regularly."*

4.3. The classroom as a stimulating learning environment (in the microsystem)

The Tanzanian learning environment was seen as central to quality by all respondents. Good pre-primary education requires a classroom – one with sufficient space and materials for the number of children. The environment of the pre-primary classroom should be colorful, with stimulating materials. Eighty percent of participants also said that a pre-

primary classroom should have teaching aids, pictures on the walls, and be attractive for young children. “*A pre-primary class must speak and be full [of] pictures and teaching aids*” (Andreas). Children must also have materials to play with in order to learn. “*When classrooms have no supplies, there is no quality*” (Beatrice). The biggest challenge in pre-primary education identified in all the Tanzanian interviews is the issue of poor classrooms that lacked facilities and materials. The participants concurred that infrastructure and facilities for pre-primary education in Tanzania are often in poor condition or non-existent due to a lack of funds from the government. This leads to overcrowding in schools and less than ideal standards that negatively affect student learning outcomes. The majority of participants described pre-primary programs as lacking classrooms or classrooms being overcrowded with facilities that are not attractive and do not have the necessary supplies to effectively teach children.

There was much consensus among all Basotho stakeholder groups around the building, infrastructure, and material needs, which mirrored those mentioned by the Tanzanian group. Sufficient space, an inviting environment and a food program were mentioned by at least one participant from each of the Basotho stakeholder groups. Learning materials and teaching aids were cited as important for quality by all country-level and administrative participants and one teacher. Unique to the Basotho stakeholders and unanimously supported was the use of learning corners to promote learning and what should be in those areas. The structure of the learning corners were described in detail by Mrs. Lerato (and see the exemplar quotation in Table 3) and are consistent with common practices promoted in NGO trainings and materials (see Sebatane et al., 2012 for an example of training resources used in Lesotho).

4.4. The Government's role in supporting ECE (in the macrosystem)

When asked about ECE information or data, Tanzanian country stakeholders were somewhat mixed in their perceptions of and experiences with the current availability of data, what are or should be collected, and their use. This could be due to the different roles of each of the participants and their different experiences with accessing and using the data. Data are gathered on registration, infrastructure, teachers' education and training, how funds are used, whether classes have classrooms, supplies and equipment, and reading outcomes. Most data are collected through self-report on forms, without inspection visits to confirm. One-third of participants saw having schools self-report on items as unreliable. The data are processed then sent to the Ministry of Education and heads of schools with suggestions for improvement but, as reported by Beatrice, these changes take place three or four years later. In regard to data gathering and quality assurance visits, three participants reported some schools are never visited or are only visited every two years when schools should be visited each year or twice a year. Reasons for infrequent visits include distance, bad roads, and lack of transportation as well as lack of quality assurance officers.

Tanzanian participants' perceptions of the role of government included educating communities about the importance of ECE and providing sufficient salaries to teachers, two indicators participants expressed were not currently in place. Valuing ECE involves government, communities, and families learning about the importance of ECE and valuing the role of teachers and respecting their work. Valerie stated that currently, “*ECE has very little support from the society in general, the government, and the political arena.*” Recommendations also include the need for government fund for materials and improved facilities. Participants recommended increased and more frequent data collection on teachers, classrooms, and child development and increased access by those who may be able to use the data to improve services. Several Tanzanian participants also stated data are needed on the interaction between teachers and students. Classroom observations that gather information on teacher interactions and practices are important and would be helpful in developing “*trainings that empower and educate the teacher*” (Valerie).

There are no national-level data collected on pre-primary children's development, but participants remarked that these data are also needed.

All Basotho stakeholders provided information about data that were currently being collected by the Ministry with most administrators and all country-level stakeholders mentioning the specific form name and number. Participants described the type of data collected as a self-report of building, materials, teacher qualifications, and child demographics. All country-level stakeholders said the information collected assists the ministry for planning purposes, resource allocation, and the provision of services including training sessions and supplies. Country-level stakeholders and administrators said the data collected helps programs plan for the growth and improvement of their schools. All stakeholder groups mentioned that the Ministry rarely visits the schools to verify information provided in the forms or to monitor quality and all felt that more could be done in this area.

On ways the government can support quality in ECE, the Basotho participants shared their experiences and knowledge of the current system of collecting data which echoed the responses of the Tanzanian respondents. The Basotho participants provided several thoughts on how the government could support quality improvements, with various stakeholder groups mentioning different indicators. Country-level and administrative stakeholder groups listed more criteria in this category than teachers and seemed to have more areas that both groups identified. Those indicators mentioned by at least one participant in these two groups included increasing pre-service degree programs, paying teachers a good salary, regular monitoring and collecting data on building, infrastructure and materials to improve quality, and support for programs to become registered with the ministry. At least one participant from each of the Basotho stakeholder groups cited providing regular and free training, revising the national curriculum, and collecting data on the child's family and health as important, with the last two indicators unique to the Basotho groups (did not appear in the Tanzanian responses).

Basotho teacher participants expressed that the challenge of inadequate teaching materials faced by most schools could be overcome if the government supported pre-primary education financially. However, the Basotho country-level participants cited limited ministry budgets and resources as a challenge to making quality improvements. Due to limited budgets, provision of infrastructure such as buildings and learning materials is a big challenge even in government owned schools. The ministry has also been unable to increase the number of reception classes (free, public classrooms) that were initially supported by donor funding.

Lastly, challenges for collecting and using data were noted by all Basotho stakeholder groups, with specific mentions of a lack of information on teaching practices and family characteristics needed to improve quality and meet the needs of individual children. The country-level stakeholders noted that there was a lack of funding available to visit schools for regular monitoring.

5. Discussion

The findings from this study used a qualitative case design to answer the research questions regarding: 1) ECE stakeholders' definitions of quality, 2) supports needed for implementing quality indicators, 3) perceptions of current monitoring and quality assurance practices, and 4) stakeholder recommendations for improvements and necessary government support for quality. This study was initiated to help inform the development of locally relevant measurement tools, as well as to broaden the literature base on definitions of quality across contexts. In answering the first and second research questions, participants identified key indicators of quality that highlighted critical teacher knowledge and skills, family and community partnerships, classroom material and program facility needs that each require support from various stakeholder levels. Existing monitoring and quality assurance efforts in both countries were seen as important but insufficient and ineffective at improving quality in their current form due to limited and infrequent visits to programs, data

specific to teaching practices and support for using data to make improvements. The last research question was addressed through a series of recommendations by participants on the role of government in supporting quality improvements through various means and avenues including funding, training programs, materials, advocacy, regulation, policy and guidance support (such as curriculum and standards) and expanded monitoring with targeted supports for program needs.

The findings are consistent with the ECE quality literature summarized in section 1 on quality, namely the importance of teacher education, practices, materials and supports. The differences observed between countries and within country stakeholder groups supports the literature calling for the need for measures that consider the context of individual countries (Myers, 2004; Rao et al., 2017) and local adaptation that involves country stakeholders (author citation redacted).

The themes represented in the stakeholder interviews offer a list of potential quality indicators to target for measurement and support and include teacher characteristics and teaching practices, parent and community involvement, building and materials, and government support. Previous research and findings from this study provide a sense of how a sample of ECE programs are currently performing on some of these quality indicators. In both countries, participants' experiences and quantitative data from the countries (summarized in section 2.3.) suggest that many ECE programs lack these critical components of ECE quality. Differences in quality themes between country stakeholders, such as the Tanzanian stakeholders noting teachers having a degree in ECE as important and Basotho stakeholders valuing the implementation of a curriculum as important may reflect the current ECE landscape and areas of concern. In the examples given, Basotho stakeholders may not have stated an ECE degree was important because there is only a certificate program with a limited capacity currently available so may not have been seen as something that was realistic to expect. Basotho stakeholders may have mentioned the curriculum as important because they also expressed the need for the curriculum to be revised.

Differences between stakeholder groups reported perceptions reflect their role and the socio-ecological context in which the ECE programs are embedded. All stakeholder groups are influenced by the larger macro society. Lesotho teachers and program administrators are influenced by the exosystem of ECE country-level administration (Britto et al., 2011; Dalli et al., 2012; Miller et al., 2012; Onwuegbuzie et al., 2013). Differences between the country context in relation to their ECE systems and supports (summarized in section 2.3) may have also influenced differences in reported perceptions between the two country groups. A national curriculum, more established teacher preparation and credentialing system, data indicating higher levels of quality (in terms of materials and teaching practices) and more wide-spread access to ECE programs in Tanzania may have contributed to participants' reflections and perceptions of quality. However, cultural differences and differences in beliefs about child development and ECE programs likely also contributed to how participants from the different countries defined quality and necessary supports for establishing quality in ECE settings.

It is important to note the clear need for greater investments in ECE to reach quality. Beyond conceptual alignment, interviewees voiced the necessity of resources for ECE classrooms, additional support for teachers, and a greater prioritization of ECE within the system more broadly. In some ways, this study emphasized that the conceptual definitions of quality created less of a barrier to reaching quality than the considerable gaps between what is desired for ECE quality, and what is available. To have a strong ECE system that supports program improvement, there must be a strong alliance between what stakeholders see as important, support mechanisms for putting these in place, and a balance of accountability in the measures used. In the macrosystem, government support of early childhood education is necessary by providing training opportunities, funding for infrastructure and material needs and raising the awareness of the importance of ECE in communities. Administrators could ensure their programs have adequate materials and space and that information is collected to ensure all children's needs are met. Families

could further support schools by becoming involved in their children's learning and partnering with ECE programs. Finally, teachers need to be knowledgeable about child development and effective teaching practices and motivated by a love of children.

5.1. Limitations of current work

As a small pilot study, the current project has several limitations. First, the sample is small, particularly in Tanzania where participants were limited to a group of six government-level stakeholders and, while the Lesotho sample included government-level stakeholders, teachers, and school administrators, neither country included other school staff, families, children or community members. To clearly capture the quality priorities of all these stakeholder groups, a more extensive sample is needed.

Second, the scope of questions was purposefully general, as we did not want to prompt for specific indicators but rather wanted to hear stakeholders' thoughts. However, a more direct approach, such as reviewing standards, policies, measures, or current practices might have yielded more detail about other indicators of quality that were not spontaneously identified by stakeholders.

Third, the questions related to what data should be collected, how it should be collected, and how it should be used were not always clearly understood by the participants and resulted in some specific comments but did not reach the level of informing an ECE data system. This was in part due to the lack of data being collected and shared and participants not being directly involved in these activities. A more thorough investigation of the data being collected, along with exploring potential data feedback loops and the possibility of impacting change would be beneficial. These limitations, however, are due to the preliminary nature of the project and could easily be remedied in future studies.

Finally, qualitative research across cultural contexts is always limited by the researchers' ability to express and understand complicated concepts, to interpret findings, and by issues of translation (Alasuutari, 1995). The inherent power and knowledge structure of a Western-led team could have influenced what information was sought and interpreted as relevant (Chilisa, 2009). That said, team collaboration included three Tanzanian and Basotho members.

6. Conclusions

This study's findings point to ways in which measuring and improving ECE quality may be approached. The areas of commonality among quality indicators coupled with differences between the countries and stakeholder groups suggest that, while there may be indicators common across context, attention should still be paid to the specific context. Our findings are consistent with other qualitative studies on ECE quality in the region (Tandika, 2015; Wilinski, 2018). Participant responses to the interview questions in both countries clearly focused on the importance of the teacher; both in the skills and experiences needed to provide quality teaching and the many ways in which teachers need to be supported to succeed. At the mesosystem level, investments in teacher education, pre-service and in-service training could lead to a larger group of qualified teachers in pre-primary classrooms. In addition, the clear need for strong relationships between teachers, families and the community around understanding and valuing ECE, could be supported through informational campaigns and community efforts. At the macrosystem level, efforts by governments or other organizations to align the priorities for the ECE system and stakeholders with measurement targeting identified quality indicators (for which there is consensus among stakeholders but is not currently being monitored as part of a government system) have the potential to support ECE quality and sustainability.

Tanzania and Lesotho are not alone in facing these challenges. Generalizing at the macro level (see Onwuegbuzie et al., 2013 about every study generalizing), the lessons learned and methods used to explore issues of ECE quality could be applied to other countries (in

Sub-Saharan Africa and globally) in pursuit of establishing meaningful, contextually relevant quality indicators that are supported and measured. The use of a multiple qualitative case study is particularly well-suited to answering questions related to building and supporting ECE programs.

Future research on ECE quality would be well served by including qualitative interviews of all groups of stakeholders within the system. By completing qualitative interviews with a broad group of stakeholders, supports and measures could be developed that would be more likely to be locally relevant and consistent with stakeholder priorities. Future studies could incorporate an expanded interview protocol that further examines initial themes, particularly relationship-building between stakeholders and community support. Future studies could also explore how data are currently being used and to establish a monitoring system that includes additional information about the quality of classrooms, teacher characteristics, government support, and mechanisms for sharing data with teachers, stakeholders, and the public to support quality improvement within ECE systems. By exploring the perceptions of ECE stakeholders, we may gain a clearer picture of the priorities, needs and challenges and how to address those issues. Strengthening ECE systems has the potential to have far-reaching, lasting impacts on children, families, communities and countries.

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CRediT authorship contribution statement

Dawn Davis: Conceptualization, Methodology, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Supervision, Project administration. **Debra Miller:** Conceptualization, Methodology, Formal analysis, Data curation, Writing – original draft, Writing – review & editing, Visualization. **Dorothy Mrema:** Conceptualization, Investigation, Formal analysis, Data curation, Writing – original draft. **Moikabi Matsoai:** Conceptualization, Investigation, Formal analysis, Data curation, Writing – original draft. **Ntsoaki Mapetla:** Formal analysis, Data curation, Writing – original draft. **Abbie Raikes:** Conceptualization, Resources, Writing – original draft, Supervision, Project administration, Funding acquisition. **Anna Burton:** Writing – original draft.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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