

Preparing Teachers for a Globalized Era: An Examination of Teaching Practices in Kenya

Lydia Nganga*

University of Wyoming, College of Education, Laramie, U.S.A
Email: Lnganga@uwyo.edu

John Kambutu

University of Wyoming, College of Education, Laramie, U.S.A
Email: Kambutu@uwyo.edu

Abstract

In an increasingly globalized¹ 21st century, an education that is student-centered is invaluable because it supports the development of collaborative, communication and problem-solving skills (Cooke-Canitz, 2013; Kambutu & Nganga, 2009). Indeed, globalization thrives in a context of collaboration between people of different cultural persuasions (Kambutu & Nganga 2008). Therefore, it is essential for all learning institutions to help learners develop the skills, knowledge and dispositions that promote collaboration. Notwithstanding the need for such an education, many educators rarely teach for globalization because they doubt their efficacy in teaching pertinent skills; skills in intercultural communications especially (Helfrich & Bean, 2011). But given the importance of an education that prepares learners for globalization, educators should find solutions to the challenges that stop them from teaching for globalization. To that end, this study identified the hindrances experienced by educators in Kenya relative to teaching for a globalized 21st century. Data showed that because of limited teaching and learning resources, along with lack of adequate training, these educators rarely taught for globalization, and that they used exclusively teacher-centered teaching strategies. Although teacher-centered instructional approaches play a crucial role in the processes of teaching and learning, they are not ideal for teaching skills, knowledge and dispositions essential to globalization (Arends, 2015). Rather, the use of student-centered instructional approaches is preferred.

Keywords: Kenyan education, Sub-Saharan Africa, Teacher training, Teaching practices, Globalization, 21st century skills, and Poverty alleviation

1. Introduction

The responsibility of teaching the skills that learners need to help them to become productive members of their respective societies is an important one. Thus, while different societies have used different teaching approaches, the use of formal schools has recently become a global norm (Sahlberg, 2004). In Kenya, for example, starting in the mid-nineteenth century, the Europeans popularized the use of European based education instead of using indigenous African curricula (Karanja, 1995; Kenyatta, 1963; Nganga, 2012, Nganga & Kambutu, 2010). Although indigenous African education played a critical role in educating Kenyan societies before colonization, an introduction of European education necessitated the establishment of formal programs to train Kenyan educators. Today, educators in Kenya are trained in different programs such as the:

- Early childhood development and education centers. These programs use in-service courses, offered through District Centers (DICECE).
- Secondary teacher education programs that train teachers at diploma certificate levels (3yrs) or at the degree level (4 years). While training at the university level is a four-year program, other two to three year programs are available.
- Special education training program that is available to in-service teachers. This two-year program is offered through the Kenya Institute of Special Education (KISE).
- Technical teacher training program that focuses on technical education. This program leads to diploma certificate, and it is offered at Kenya Technical Teachers College (KTTC) in Nairobi.
- Primary teacher training program. This two-year program is available at numerous teacher-training colleges around the country (US University of Sussex, 2010).

Teacher training is an important component of education in any society because teachers are charged with the important responsibility of educating society's youth (Wentzel & Looney, 2006). Reflecting on the importance of having an effective teacher-training program, Kafu (2011) reminded us that because teachers change lives, then, the institutions that train educators deserve respect. Meanwhile, Lucas (1968) concluded that teacher-training education is the pillar of any established system of education and the custodian of society's

¹ In this study, globalization denotes a world that is increasingly interdependent and interconnected in all facets of life perhaps because of improved modern technologies (Kambutu, 2013).

culture, a fact that was supported by the government of Kenya in its 1988 sessional paper (No. 6). In this document, the government advocated for an urgent promotion of teacher education programs in the country. Additionally, it recognized the importance of teachers in promoting and accelerating national development. Therefore, given the Kenya government's recognition of the critical role that educators play, teacher education programs in the country have always been received well. Indeed, Kafu (2011) argued that for some time, only the highly qualified candidates could get admission into teacher training programs in the country. Over the years, however, teacher training programs have lost status, and as a result, most Kenyans "no longer regard teacher education highly when compared to other sectors of education," (Kafu, 2011, p. 46).

2. Demand for Teachers that have 21st Century skills in a Globalized era.

In a world that is increasingly globalized, that is, a place of human interdependence and interconnection in terms of cultural, economic and political practices (Krieger, 2005), the demand for well-trained teachers is on the rise. To that end, Sahlberg (2004) noted that globalization has led many countries to restructure their educational policies to line up with systems of what they consider current international practice. Therefore, Sahlberg (p.69) concluded that the "demand for technological literacy, flexibility of knowledge and skills, and ability to adjust to new labor markets needs require teachers to teach new things in new ways. Globalization is hence catalyzing education reforms around the world." But because the quality of education received depends largely on teacher's quality, the establishment of high quality teacher training programs is desired. As noted by Howard (2006) and Kafu (2011), in the event that teacher-training programs fail to equip teachers with essential knowledge, skills and disposition for globalization, then, the trained educators might not be able to impact their students with pertinent skills that they need and deserve. In Howard's view, educators cannot teach what they do not know. As a result, Kafu advocated for teacher education programs that helped pre-service teachers to acquire the knowledge and skills they need to teach effectively for a globalized world.

In terms of equipping teachers with essential knowledge and skills for a globalized world, Kafu (2011) recommended training educators with skills relative to problem-solving. An education for problem-solving skills is especially relevant in a globalized world because globalization requires a critical and informed understanding of the world (Sleeter, 2003). Notwithstanding the importance of an education for problem-solving, an education with a global focus especially, many educators rarely teach to it because they doubt their efficacy in teaching pertinent skills; skills in intercultural communications especially (Helfrich & Bean, 2011). Equally problematic is educators' overreliance on teacher-centered instructional approaches. Although teacher-centered teaching approaches play a crucial role in the instructional and learning process, they are not ideal for teaching problem-solving skills. Rather, instructional strategies that are student-centered are proven to increase learners' abilities to problem-solve (Arends, 2015). Notwithstanding the importance of student-centered teaching practices, many educators, Kenyan teachers especially rarely use them.

In Kenya, educators utilize largely behaviorist teaching approaches that tend to be teacher-centered rather than student-centered (Kafwa, Gaudienc and Kisaka, 2015). But in a globalized world, the use of teacher-centered instructional approaches is not as valuable because learners need to learn collaboration and problem-solving skills; skills that are better mastered in learner-centered instructional practices (Nganga & Kambutu, 2012). A student-centered learning environment is fundamentally different from a teacher-centered one. For example, in a teacher-centered instruction, the teacher is not only the dispenser of knowledge, but he/she is also the planner, questioner, challenger, and truth-teller to passive students. These roles are virtually reversed in a student-centered learning environment. Instead, the teacher becomes a facilitator of learning that is guided by the students (Kambutu & Nganga, 2009). Additionally, in a student-centered learning environment, learners formulate their ideas and conclusions (see appendix 1). Consequently, in a learner-centered learning environment, students are expected to generate their own understanding through active involvement with content rather than through imitation and repetition of what their teacher says.

Evidently, in a student-centered learning process, the student is not only in-charge of his/her learning, but he/she participates fully and actively in the learning process. Therefore, given the benefit of a learner-centered instruction, it is essential for all teacher education programs to adopt the use of student-centered teaching strategies so they can equip pre-service teachers with pertinent skills and knowledge. The pre-service teachers thus prepared are likely to use similar instructional strategies in their future classrooms. Indeed, the use of student-centered instructional strategies has multiple general benefits but it is especially beneficial in an education for globalization because it promotes the mastery of skills in critical thinking, problem solving, reasoning, analysis, interpretation, information access and evaluation. Equally developed are skills in research and interrogative questioning skills, creativity, artistry, curiosity, imagination, innovation, personal expression, technology and communication literacy, global awareness, multicultural literacy, and humanitarianism (Partnership for 21st Century Learning, 2014). These are all integral skills, knowledge and disposition in a globalized world.

Notwithstanding the benefits of a student-centered learning process, however, it is rarely used in Kenya

and many other countries in Sub-Sahara Africa because of lack of adequate teaching and learning resources, as well as lack of adequate teacher training (Kafu, 2011). Reflecting on the nature of teacher preparation programs in Kenya, for example, Kafu (2011, p. 49) concluded that because of “inadequate, obsolete, dilapidated and unsuitable” training resources, Kenya’s teacher training programs were incapable of “producing a competent teacher who can operate in this century.” Thus, Kafu questioned the ability of Kenya’s teachers to equip learners with the skills, knowledge and dispositions needed in a globalized 21st century world. To Kafu the state of teacher training programs in Kenya “raises concern about the quality of teachers serving in the school system.” Thus, he felt that although Kenyan teachers may “appear incompetent and not reflecting the expected image of what a good teacher should be, the causes of this state lies elsewhere. They are victims rather than villains of the teacher preparation program” (Kafu, 2011, p. 49).

2.1 Training Educators in Sub-Saharan Africa

In many Sub-Saharan African countries, there are concerns that the quality of instruction in public schools is suffering because schools are staffed with teachers who have inadequate preparation for a 21st century globalized world (Mulkeen, 2010). Indeed, poor understanding of subject matter, and/or inadequate pedagogical practices could affect negatively the teaching process. Consequently, Mulkeen supported the establishment of teacher preparation programs that align training goals with societal needs. Therefore, because a globalized era requires skills in communication, collaboration and problem solving, then, all teacher-training programs should enculturate pre-service teachers with corresponding skills. But because teacher training programs generally depend on pedagogical theories, they do not necessary link learning to societal needs. Therefore, there is a need to adopt teaching practices that align effectively with societal needs. Additionally, such a curriculum could help learners to develop their human capabilities. An education thus designed and practiced invests in people, and as Sina and Moshtaghi (2014, 117) reported, it;

enables growth and empower individuals to pursue many life paths, thus developing their human capabilities. The most basic capabilities for human development are; to lead long and healthy lives, to be knowledgeable (educated), to have access to resources and social services needed for a decent standard of living, and to be able to participate in the life of the community.

In other words, a curriculum that is learner-centered should be the norm because it allows learners’ needs to drive curricula. It also facilitates human capabilities to be optimized. But a learner-centered curriculum is likely to succeed in a learning environment where the teacher-student ratio is low.

Teaching in a low teacher-student ratio environment allows the educator to address fully the educational needs of his/her students. Notwithstanding this benefit, however, the increasing student population in many schools in recent years is resulting in increased teacher-student ratio. Addressing this issue, Kruijer (2010) was especially concerned about the 25 percent increase in the number of children attending primary schools in Sub-Saharan Africa in the first six years of the 21st century. As a result, a teacher-student ratio of 1 to 45 is common in most developed nations, the ratio is 1 to 25 (Lauwerier & Akkari, 2015). To address the problem of growing student population, some governments in Sub-Saharan Africa are either hiring untrained and unqualified teachers, and or using overcrowded classrooms that are not conducive for student-centered learning. Teaching large numbers of students reduces an educator’s ability to not only plan effectively for instruction, but also to know his/her students on a personal level. Meanwhile, lack of adequate instructional and learning materials compounds further the instructional challenges experienced by educators. While up to 13 students share a single textbook in some schools in Sub-Saharan Africa, in others, there is lack of access to clean drinking water, toilets and electricity (Lauwerier and Akkari, 2015). The absence of clean and safe toilets discourages many female students from attending school regularly (UNESCO, 2012, n.p).

2.2. Poverty: A hindrance to Teaching and Learning in Kenya

The government of Kenya, upon attaining independence declared war against ignorance, disease and poverty. To ensure victory against this enemy, the government recognized the importance of having an educated citizenry. As a result, it embarked on policies in support of advancing national education (Nganga & Kambutu, 2010). While an education that prepared Kenyans for employment was essential, the government was also keen at ensuring public access to knowledge and information. As a result, it consulted widely with various educational commissions such as the 1964 Ominde Commission, the 1976 Gachathi Commission, the 1981 Mackay Commission, the 1988 Kamunge Commission and the 2000 Koech Commission. The government charged these commissions with the responsibility of designing an education that would not only meet the economic and political needs of a free Kenya, but would also restore a sense of self-pride and dignity among indigenous Kenyans (Nganga & Kambutu, 2012). In addition to utilizing educational commissions, however, the Kenya government relied on other initiatives, including the 2005 Sessional Paper No.1 that created Kenya’s framework for education, training and research. But although the government’s commitment to national education is strong,

poverty that affects many rural¹ schools continues to frustrates its educational efforts (Adedeji & Olaniyan, 2011).

In rural Kenya, for example, a majority of people earn less than one U.S. dollar a day or 100 Kenyan shillings. Poverty in rural areas is perhaps a factor of agricultural economy. Because rural Kenyans are more dependent on agriculture, their economic status is determined by the kind of agricultural output they experience. For example, increased agricultural production means more income and decreased poverty levels and vice versa (Ellis & Freeman, 2005). In rural settings where poverty is the norm, schools are likely to experience inadequate teaching and learning resources (Burns & Needles, 1994). Because poverty impacts teaching and learning in multiple ways, then, teaching skills for a globalized 21st century in Kenyan schools, rural schools especially might be unrealistic.

Teaching skills, knowledge and dispositions for a globalized 21st century is a must. Nevertheless, the challenges experienced by Kenyan educators in general seem to complicate this noble process. For example, in addition to experiencing training programs that rely heavily on teacher-centered instructional practices, Kenyan educators experience a general negative perception against the teaching profession. But the challenge of teaching in schools with high teacher-student ratio, along with lack of enough teaching and learning resources are daunting issues for Kenyan educators. Indeed, lack of enough teaching resources makes it very difficult for Kenyan educators to teach for a globalized 21st century skills. In this study, therefore, the researchers explored the experiences of Kenyan educators relative to teacher training in the context of teaching to skills, knowledge and dispositions in a globalized 21st century.

3. Methodology

3.1 Research Design

This qualitative study used a case study design. Case study research allows the exploration and understanding of complex issues (Grassel & Schirmer, 2006). Yin (1994) noted that case studies in their true sense, explore and investigate contemporary real-life situations from an “empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (p. 23). Thus, the use of a case study design allowed the researchers to conduct in-depth interviews and observations of teachers in a Kenyan rural school relative to the factors that influenced teachers’ teaching practices. The use of in-depth interviews was especially necessary because they offer insights into people’s experiences and intentions (Pope, Royen & Baker, 2002).

3.2 Study Group

A convenient sample of 6 teachers (4 Kenyans and 2 U.S.) was used. Convenient sampling is particularly helpful when a researcher has limited resources and time to conduct a study (Altikulac, 2016; Yildirim & Simsek, 2011). So, because of time constraints, the researchers conducted this study while participating in a service-learning project that constructed a classroom in a rural school in Kenya. To identify the Kenyan educators to participate in the study, the researchers requested the school principal for recommendations based on availability and the subjects that the teachers taught. Because globalization has a social studies focus, the researchers preferred to interview Social Studies educators. As a whole, the researchers planned to interview a minimum of five teachers in this school setting (total number of teachers in the school was 9). However, two of those identified declined. In the end, two teachers in lower and upper primary respectively participated. Meanwhile, because two educators from the U.S. who were participating in the service project were interested in experiencing Kenya’s education, including the teaching processes, the researchers invited them to participate in this study. Data from Kenya’s and educators from the U.S. were especially insightful because they offered comparative space between education in Kenya and U.S.

3.3 Data Collection and Analysis

Using existing literature on teacher training and teaching practices in Kenya, the researchers designed open-ended, semi-structured interviews that they used to collect data. Additional data were collected through classroom observations. To solicit participants’ insights, the researchers included reflective questions that focused on the participants’ perspectives relative to the nature of teacher training practices they experienced, their own teaching practices, availability of resources as well as their own experiences as classroom teachers. Interviews were conducted incrementally over a period of four days with a minimum of 30 minutes of interviews each day (a total of 2 hours per teacher). The researchers took notes that were later transcribed. (see appendix B for sample interview questions). The following overarching research questions guided this study:

- What are the perceptions of Kenyan primary school teachers regarding their preparation for the teaching

¹ Rural in this study denotes a geographic place situated away from major cities, and its main economic activity is subsistence farming. Thus, the level of poverty in rural areas could be higher than in urban areas.

profession in a world that is becoming increasingly globalized?

- What challenges, if any, do Kenyan teachers face in teaching skills for a globalized 21st century?
- How do U.S. teachers perceive teaching and learning in Kenyan classrooms?

The interviews took place at times that were convenient to the participants, generally before and after school hours, and during lunch breaks. Data were analyzed qualitatively by clustering and identifying common themes (Strauss and Corbin, 1998). Reliability of transcription was enhanced by requesting the participants to verify researchers' notes and comments (Creswell & Miller, 2000). Additionally, the researchers used an education "expert" who was available at the research site to read through field notes independently and to code them. Then, the researchers and the education expert compared and discussed their respective notes until a consensus was reached (Driedger, Gallois, Sanders, & Santesso, 2006). To ensure anonymity, the researchers used pseudonyms for both the school and participating teachers.

4. Findings

A thorough analysis of data yielded multiple minor themes that the researchers melded into the following four main ones:

- The need to equip Kenyan teachers with skills to teach for a globalized 21st century
- Lack of instructional and learning materials
- Preparing teachers for a globalized world by using learner-centered teaching strategies
- The need to alleviate poverty in rural schools in Kenya.

A discussion of these themes follows below.

4.1. The need to equip Kenyan teachers with skills for a globalized 21st century

One of the interview questions the researchers asked focused on the kind of teacher training that participants experienced. Ben, a class seven Science teacher reported that he completed a three-year diploma certificate in a teacher training college in Nairobi. While there, he was required to enroll in courses such as Multicultural Education, Psychology, Methods of Teaching, and Classroom Management, among others. Although Ben felt that his training prepared him well relative to teaching science content, he was dissatisfied because most of the course work he took required little or no interactions between pre-service teachers and faculty. The lecturers (hereafter referred as teacher educators) lectured from their notes. Ben described the teacher-centered teaching practice that he experienced thusly: "lecturers came in the classroom and read their notes to us. We just took notes. We did not have opportunities to ask questions, and we rarely did group work." A different teacher, Judy reported a similar experience with teacher-centered instructional practices.

Judy, a third grade teacher, attended a training college in the Rift Valley. To Judy, the teacher-centered instructional approaches she experienced were possibly a factor of lack of teaching resources. She noted that instructional materials were not available during most of her teacher training courses. Therefore, Judy and her peers relied on notes that were taken during lectures. She added that teacher educators "rarely used chalkboards to write notes." Instead, "they sat in front of the class, opened their notes and started dictation. After their time was over, they left the classroom without interacting with students." So, Judy felt that she gained the teaching skills she possessed through trial and error, and by watching other teachers teach.

Musa, a first grade teacher also complained about his experiences with teacher-centered instructional practices. While completing his teacher-training program in a college in Coastal Kenya, he indicated that his lecturers provided "no time for discussions or questions." To Musa, the general lack of learning opportunities that encouraged learner "creativity, innovation and personal expression" was troubling. Meanwhile, Jane, an eighth grade Social Studies teacher reported receiving little training on global awareness issues. As a result, she reported feeling less prepared to teach to global awareness; and the fact that her students had limited access to information about global matters was not helpful. To Jane, poverty is a hindrance to accessing global awareness information. Because Jane's students came from poor families in the rural area, they had "limited access to television." Yet, television and other modern technologies, electronics especially, are ideal sources of global information (Tapscott, 2009; Kambutu & Nganga, 2008).

Although the participants were interested in preparing their students for a globalized 21st century, they identified the lack of technology as a major hindrance to teaching for global literacy. To that end, Musa supported the Kenya government's plan to promote rural electrification. Without electricity, it is not possible to use technology for instructional purposes. Notwithstanding the government's commitment to rural electrification, however, lack of funds frustrated the school's effort to install electricity. So, the participants felt strongly that with continued lack of electricity in their school, they could not advance their students' knowledge of global awareness. To that end, Musa argued that having electricity in the school was essential because electricity would not only allow students to "stay late after school to study for examinations, but they could also have access to computers so they can get information from the internet." Meanwhile, Judy spoke strongly on the need to train Kenyan educators in areas of modern technologies. Because a majority of the teachers in the school lacked

training in technologies, Judy concluded that they could not guide their students appropriately.

4.2. Lack of instructional and learning materials

One of the biggest challenge facing Kenyan educators was lack of teaching and learning resources. Reporting on this issue, Ben surmised that because of lack of teaching resources, including instructional technologies, he improvised often while teaching Science to his seventh graders. In Ben's classroom, for example, the only available teaching materials were chalkboards and 15 textbooks that his 30 students shared. Indeed, teacher improvisation was quite common. For example, in an Environmental Science lesson that the researchers observed, the teacher used a car tire, plastic bags, and sisal bags to demonstrate how certain objects used by humans pollute the environment, when disposed improperly. In this lesson, Ben asked his students, "what happens when you burn tires and plastic bags? Do these objects go back to the soil?" He then used the bags as he asked his students, "what happens if this bag gets old or burns?" Ben's students raised their hands to respond. If their answers were correct, Ben asked the whole class to "give one clap for..." But whenever learners provided wrong responses, Ben offered the right answers and moved on without asking his students to either pair up or team up to find the correct answer/s. Nevertheless, at the conclusion of the lesson, Ben invited the students to ask questions.

The researchers observed a similar lack of student-centered instructional practice in an eighth grade classroom where Jane taught a lesson on British settlers and political movements in Kenya before independence. Teacher Jane's classroom had 45 students sharing 15 textbooks (one between three students). Because the textbooks in use were from different editions, the teacher had to reference different page numbers to ensure that her students had access to the same information. There were no maps or globes in the classroom to help the students find the different places that Jane referenced during the lesson. Instead, the teacher drew a map of Kenya on the chalkboard, and identified the different locations that she was teaching about. After observing the instructional dynamics involved, a U.S. educator wondered how effective teacher-centered instruction could possibly be in the absence of teaching and learning resources. The following feedback captures rather poignantly this educator's perspective about teaching in the classrooms she visited:

Most of the classrooms I visited in Kenya had nothing on the walls. In one first grade classroom, the teacher had drawn animals on the wall and one section of the chalkboard had teacher-drawn pictures that the teacher labeled. In my home classrooms in the U.S., early childhood classrooms have several visuals. It is amazing to see how much Kenyan teachers are doing with so little resources to teach young children.

When the researchers asked Jane how she helped her students to see the world beyond their immediate environments, she replied, "it is hard. Without maps and technology, it is not possible. But we just teach what is in the textbooks that we have."

4.3. Preparing teachers for a globalized world: The need to use learner-centered teaching strategies

The researchers asked the participants to describe how they were preparing their students to function effectively in a globalized 21st century world. And while they appreciated the need to prepare young people to function well in a globalized 21st century, the participants were generally disempowered to do so because they did not receive training that prepared them to teach the skills, knowledge and dispositions needed in a globalized world. Equally handicapping was lack of teaching and learning resources. After witnessing the dire need of teaching resources in the Kenyan school in this study, a Science teacher in the U.S. was perplexed. So, when asked to discuss her perception of the classrooms she visited in Kenya, she reported that as a Science teacher in the U.S. she was dismayed at the lack of basic teaching and learning resources she found in the Kenyan classrooms she visited. The following excerpt explains Suzie's perception of education in Kenya compared to teaching in the U.S.:

As a Science teacher in America, I had access to electricity, computer, internet, a set of textbooks, and more. This was in an inner city school in North Carolina. There are vast differences between my teaching conditions and the teaching conditions of a teacher in Kenya. The two Kenyan schools we visited were lacking the basic teaching necessities that all American classrooms have. For example, they lacked electricity, running water and restrooms. American teachers do not realize how teaching is made easy for them. Kenyan teachers have to improvise many things, yet their students have to compete with the world.

Suzie's response speaks to the differences between classrooms in rural Kenyan schools and schools in the U.S. For example, the level of poverty in the Kenyan schools that Suzie visited was incomparable to the state of poor schools in the U.S. Consider, for example, her statement that "U.S. poor schools have much more that they would be considered rich in Kenya." Notwithstanding the noted lack of teaching and learning resources, however, Suzie credited Kenyan teachers for doing their best to prepare their students to compete in the world, an obvious paradox considering the observed lack of teaching and learning resources.

Although Kenyan teachers rely mostly on teacher-centered instructional practices, they improvise in order to make teaching and learning meaningful. Consider, for example, Suzie's report that Kenyan teachers wrote notes on the chalkboard to enable their students to interact with content. Additionally, Kenyan educators

made effort to ensure that their students understood critical content. On teacher preparation, however, Suzie noted that in her teacher education program in the U.S., she had taken courses that helped her to experience different instructional strategies. Thus, she seemed to find comfort in her training as is evident in the following reflection:

I mean, in the U.S., we have the options of taking technology courses to assist us with teaching. Our teacher educators emphasize and model child-centered instructional practices, and our creativity is encouraged. We also have classroom materials; sometimes I think more than we need. Computers are found in every classroom that I have taught in and more are available in the school libraries and computer labs. There are always visual aids to put on the wall, and if need be, one can use the internet for research whatever is needed. This makes it easier on educators and students.

While comparing the instructional practices in Kenyan schools with teaching practices in the U.S, Jane, an eighth grade Social Studies teacher in Kenya was surprised that American educators had so much instructional and learning resources at their disposal. Additionally, she was stunned to learn that learner-centered instructional practices are generally expected in American schools. But when Jane observed Lucy (an American teacher) teach a lesson on Kenya's road to independence, she finally appreciated the value of a student-centered instructional approach. Reflecting on the experience, Jane indicated;

It was interesting to see how Lucy engaged students in discussions and asked students to support their thinking when they answered questions. Students were given time to collaborate with peers. Equally satisfying was how well Lucy used the chalkboard and graphic organizers to help the students develop mental images of the content that she was teaching on Kenya's road to independence.

The takeaway for Jane, therefore, was that Kenyan teachers ought to embrace learner-centered teaching practices, a daunting task because "a Kenyan Social Studies teacher is also considered the textbook for his/her students." But Musa, a first grade teacher disagreed with Jane's call for Kenyan educators to embrace student-centered teaching approaches, and rather advocated for more professional development activities, and increased access to teaching and learning materials as a possible remedy. After watching Dusty (a U.S. teacher) teach a lesson, Musa concluded that;

Dusty's teaching was clearly student-centered. I enjoyed to see how well he had students work together in small groups to explore the planet models that he was using. I was watching students, and it was good to see them restate the teacher's expectations and solve problems together. Kenyan teachers could easily teach the same way, but they would first need to be retrained through various professional development activities. Kenyan educators should also have access to enough instructional and learning materials. Dusty brought his own teaching aids for the Science lesson on planets from the U.S. He had posters and others teaching aids. Without such teaching and learning resources, Kenyan teachers are not able to do what Dusty did.

All the Kenyan teachers participating in this study indicated that they lacked adequate classroom teaching and learning resources. For example, although the Kenyan school included in this study was ready for electricity, it still was not powered because of lack of funds. Nevertheless, educators in this school hoped that when electricity was finally available, it will help them to use mobile phones to access information from the internet that their students needed in order to understand the world. But these educators were pessimistic about the problem of high student-teacher ratio. Equally problematic was lack of enough teaching and learning materials because of high levels of poverty in rural schools especially.

4.4. Need for poverty alleviation in Kenyan rural schools

Because education has the potential to equip learners with the skills they need to improve their lives, it is critical to eradicate all hindrances to quality teaching and learning, poverty especially. Thus, when the researchers asked the participants to identify the main challenge they generally faced in their work, they mentioned the high levels of poverty in Kenyan rural schools. For example, Ben a seventh grade Social Studies teacher noted that his students lacked textbooks "because the school did not have enough resources, and parents were poor." But for Musa, a first grade teacher, the lack of "enough teaching and learning materials affected teachers' ability to teach effectively." Therefore, he called for total parental help "because a majority of poor parents only provide very little to support education even when they are able to give a little more"

Kenyan parents value education because they see it as a solution to poverty for themselves and their children. Without a doubt, these parents understand that education is the key to accessing good jobs, and good working conditions with good pay (Chege, Stephen, Wairimu & Njoroge, 2015). Thus, a good education can not only lift households out of poverty, but it could also guard families against falling back into poverty. Regardless of this understanding, the Kenyan rural school included in this study experienced dire levels of poverty that made it near impossible for educators to teach their students the skills, knowledge and dispositions needed to function effectively in a globalized 21st century.

5. Discussion

Data from this study point to the possibility that Kenyan teachers are not well prepared to teach for a globalized 21st century. Consider, for example, that the educators who participated in this study rated the teacher training programs they experienced inadequate. Specifically, they cited the teacher-centered instructional practices they experienced that did not provide them with opportunities to learn about learner-centered teaching practices. Because of experiencing primarily teacher-centered instructional approaches, the participants reported feeling ill prepared to teach skills, knowledge and dispositions for a globalized 21st century.

Teaching for a globalized 21st century requires the use of student-centered instructional approaches, constructivist based teaching and learning strategies especially. Constructivist argue that “because the teacher engages children with experiences” students are able to construct their own knowledge, and not merely rely on the teacher for answers (Tompkins, 2011, p. 5). Indeed, constructivist teaching calls for learners to be actively involved in the learning process. When learners are actively involved in their learning, they are more likely to be curious as they actively create their own knowledge. Such learning supports collaboration among learners while providing opportunities for students to question, seek information, and create new knowledge by solving problems. These are all ideal skills for a globalized 21st century.

Preparing teachers for a globalized 21st century calls for the use of different teaching approaches in teacher education curricula. For example, because a globalized 21st century world is a complex place, then educators should be equipped with pertinent knowledge and skills so that they can prepare their own students to function effectively in a multifaceted world. While skills for a globalized 21st century are multidimensional, abilities that promote creativity, critical thinking, communication and collaboration are especially needed (Partnership for 21st Century Learning, 2014). What is obvious, then, is that a teacher-centered learning approach that does not invite learners to be fully involved in the learning process is not ideal while teaching skills for a globalized 21st century. Instead, a learner-centered instructional practice is helpful because it supports differentiated learning.

Differentiated learning focuses more on equity vs. equality. In other words, it moves away from the notion that “one size fits all,” and instead focuses on meeting learners’ individual needs (Sleeter & Grant, 2008). Because differentiated learning requires educators to focus on learners as individuals, Tompkins (2011) recommended teaching practices that allowed purposeful and active classroom interactions because learners tend to be at different levels of academic achievement and ability. To Tompkins, the use of instructional models that taught all children the same way was unnecessary because learners bring different lived experiences and needs to the classroom. As a result, an education for a globalized 21st century ought to be differentiated in content, process and product. Thus, Tompkins supported content that focused on the information that each learner needs by choosing instructional materials at each learner’s levels. Additionally, he advocated for curricula that considered each learner’s developmental level, as well as his/her current grade placement.

In terms of differentiating instructional process, Tompkins (2011) recommended a variation of instruction and learning activities by providing instruction to individuals, small groups, and the whole class, and by monitoring learning in order to adjust instruction as needed. And because differentiated instructions requires a differentiation of product, he favored assessments that allowed learners to document learning in multiple ways such as projects that learners created individually and/or with partners. In differentiating product, learners could also complete regular tests that accommodate visual, oral and written needs.

Considering the benefits of learner-centered instruction, particularly because of the imbedded differentiated teaching practices, it should be adopted by all schools. But because rural schools in Kenya lack critical instructional and learning resources, implementing learner-centered instructional practices could be a daunting task, yet Kenyan students need to be prepared for a globalized 21st century.

In a globalized 21st century, skills in information literacy, effective communication, problem solving and collaboration are needed. These skills are better taught in learner-centered environments. So, because Kenyan rural schools are ill equipped to teach the skills needed in a globalized 21st century world, all pertinent stakeholders should explore ways to remedy this potentially devastating instructional challenge. In addition to providing adequate teaching and learning resources, for example, making technology available and accessible in rural schools is a viable solution that could motivate educators to rely more on learner-centered instructional practices than on teacher-centered teaching approaches.

6. Limitations and Future Directions

In this study, the researchers explored the perceptions of Kenyan educators relative to the teacher training they received, especially whether they were prepared to teach for a globalized 21st century. Additionally, the study explored the hindrances that the participants experienced while teaching in a poor rural school in Kenya. This study has the following limitations:

Firstly, because only one school was used in the study, and because the sample was small, findings might not be generalizable to all Kenyan rural schools. Nevertheless, the reported data could provide a starting

point in terms of understanding the challenges that educators in rural Kenya face. For example, because the participants had extensive experience with teacher-centered instructional approaches, they tended to rely more on them in their own teaching processes than in student-centered teaching strategies even though they appreciated the benefits of using learner-centered teaching approaches relative to teaching the skills knowledge and dispositions needed in a globalized 21st century.

Secondly, because most of the data reported in this study was generated through self-reporting (interviews), it is probable that the participants reported what they thought was consistent with the current trends in education instead of reporting their actual educational experiences both during teacher training process and later as educators themselves. Additionally, because the reported perceptions relative to the training experienced were based on participants' memory, it is possible that the participants did not remember their experiences in details and/or accurately. Regardless of this limitation, however, all teachers shared near identical experiences relative to experiencing teacher-centered instructional strategies, and the lack of teaching and learning resources they experienced. Although the literature the researchers reviewed about this matter supports the participants' recollection, they recommend a replication of this study, preferably using a bigger sample of schools and educators in order to mitigate the identified limitations. For example, a larger study that focuses on exploring regional similarities and differences in rural Kenyan schools could provide data that could help identify how rural schools in Kenya are preparing their students for success in a globalized 21st century.

Thirdly, this study compared the perceptions of U.S. and Kenyan educators. Because these educators worked in different social-economic contexts, findings might add minimally to instructional realities in Kenya. Notwithstanding the said differences, however, Kenyan educators appreciated the educational insights they received from their U.S. counterparts. Because a globalized 21st century involves interaction and interconnection between people of different cultural and economic persuasions, creating space that supports meaningful interactions between different cultures of the world is invaluable.

Fourthly and finally, this study has a clear bias in its support for student-centered instructional strategies. Although learner-centered instructional approaches are ideal in promoting skills, knowledge and dispositions needed in a globalized 21st century, without teacher-centered instructional approaches that are ideal for teaching essential basic and foundational skills (Arends, 2015), it is not possible for learners to master other more complex skills. Thus, although this study seems to offer an overwhelming support for student-centered teaching approaches, it should also address the critical role that teacher-centered instructional strategies play in the process of teaching and learning.

7. Conclusion

The realities of globalization necessitate educators to help their students to acquire the skills they need to function effectively in a globalized 21st century. While a variety of knowledge, skills and dispositions are needed, the ability to access information, make connections, work collaboratively, and problem-solve are critical skills to master (Heilman, 2008). Because teachers play an essential role in the process of teaching and knowledge acquisition, they must themselves master pertinent skills so they can teach those skills to their students. To that end, Howard (2006) argued that "we can't teach what we don't know." That being the case, then, all teacher-training programs should ensure that teacher training curricula is equipping future educators with knowledge and skills for a globalized 21st century. Consider, for example, that because the Kenyan educators who participated in this study experienced teacher-centered instructional practices while in college, they struggled relative to implementing learner-centered teaching in their own classrooms. In specific, these educators struggled in invoking critical thinking, problem-solving, information access and evaluation strategies. Indeed, because Kenyan teachers are devoid of these skills, they relied more on simple instructional approaches such as note taking and informational regurgitation.

Given the complex nature of a globalized 21st century world, the skills learned in Kenyan schools are not sufficient. Instead, Kenyan learners ought to experience learning that promotes high level thinking skills. Such learning requires divergent interactions with information, data interrogation and interpretation, questioning, and application of research processes and practices. Nevertheless, given the general lack of teaching and learning resources in rural schools in Kenya, teaching for 21st century skills could be a daunting task, unless educators are willing to take risks by using what they already have. For example, the use of questioning as an instructional technique, along with creating time for classroom collaboration and discussions are learner-centered instructional practices that do not require the use of extra teaching and learning resources.

Kenyan educators must do everything within their power to equip their students with the skills, knowledge and dispositions for a globalized 21st century. Because a globalized 21st century embraces divergent thinkers, for example, Kenya's educators should teach skills in divergent thinking. To do so, they should move away from teacher-centered instructional practices that expect learners to regurgitate information, and instead depend on student-centered instructional practices that give learners a voice in the learning process. Allowing learners to participate fully in the learning process is essential because it not only enables them to understand

how the world works, but it also creates space for divergent thinking about global matters. Indeed, the use of instructional practices that supports students' input enables them to see the interconnectedness of the world. Furthermore, such learning activities are likely to promote pluralism, equality, and a deeper appreciation of human rights. Said differently, an education for a globalized 21st century should include pedagogical practices that prepare students for 21st century realities. Apparently, an education that is learner-centered is ideal relative to teaching to essential 21st century skills, knowledge and dispositions.

Acknowledgment

The researchers acknowledge the funding support they received from the Social Justice Research Center (SJRC) at the University of Wyoming. The SJRC is dedicated to scholarship that addresses practical and theoretical questions arising from social justice issues.

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Appendix A

Teacher vs. Learner-Centered Instruction

Teacher-Centered	Learner-Centered
Focus is on instructor	Focus is on both students and instructor
Focus is on language forms and structures (what the instructor knows about the language)	Focus is on language use in typical situations (how students will use the language)
Instructor talks; students listen	Instructor models; students interact with instructor and one another
Students work alone	Students work in pairs, in groups, or alone depending on the purpose of the activity
Instructor monitors and corrects every student utterance	Students talk without constant instructor monitoring; instructor provides feedback/correction when questions arise
Instructor answers students' questions about language	Students answer each other's questions, using instructor as an information resource
Instructor chooses topics	Students have some choice of topics
Instructor evaluates student learning	Students evaluate their own learning; instructor also evaluates
Classroom is quiet	Classroom is often noisy and busy

Source: <http://www.nclrc.org/essentials/goalsmethods/learncentpop.html> (n.p).

Appendix B

Sample: Interview questions

Interview questions: Reflecting on the teacher preparation you experienced, please:

1. Tell me about your experiences in teacher training. Where did you get your training?
2. Were there instances that promoted interaction among pre-service teachers and teacher educators (lecturers)? Learners with other learners? Please, explain.
3. How were you assessed? Were there opportunities to work in groups, creative work? Please, explain.
4. If there was something you would change about your teacher training what would that be and why?

Questions on teaching practices

- A. Tell me about your teaching. What do you teach? What influences how you teach and what you teach?
- B. In what ways has your teacher training influenced the way you teach?
- C. What challenges do you face as a teacher? How might they be solved?
- D. When you observed the visiting teachers from the U.S teaching a lesson, what did you notice as differences between his/her style and how Kenyan teachers teach if anything? Explain.

How do U.S teachers perceive Kenyan teaching practices?

- i. As a visiting teacher what were your experiences teaching in a Kenyan classroom? Why?
- ii. Based on your observations of how teachers interact with students in Kenyan classrooms, what did you learn? How is it similar or different to what you are accustomed with? Explain.