

Instructors' Perceptions of Authentic Learning in the Pedagogical Approaches of Postsecondary
Education in Sub-Saharan Africa: A Case for Uganda

by

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ABSTRACT

The literature has demonstrated a need to not only examine instances of student-centered learning in Sub-Saharan Africa (SSA) but also discuss associated instructional approaches from the perspective of instructors. The purpose of this study was to gain further understanding about Ugandan postsecondary instructors' perceptions of their pedagogical approaches, including the implementation of student-centered instructional methodologies, such as authentic learning (AL) and Indigenous African Education (IAE) for postsecondary schools in Uganda. Based on the study purpose, the following research questions guided this study:

1. What are instructors' perceptions of their experiences with postsecondary pedagogical approaches or instructional methodologies implemented in their university?
2. What are instructors' perceptions of their experiences with the degree to which AL is important, implemented, and supported at the university level?
3. What are instructors' perceptions of the IAE pedagogy and how they relate it to their current postsecondary instructional methodologies?
4. How do instructors perceive the way in which teaching and learning in Ugandan postsecondary education can undergo improvement?

Using a qualitative research framework with a multiple case study design, this investigation explored the research questions to give meaning and shape to the data. Six active university instructors were recruited from Uganda's Makerere University and provided 60-minute semi-structured interviews with guided questions as well as follow-up interviews and classroom observations. The interview data underwent transcription and narration to facilitate the development of themes relating to postsecondary pedagogical methods. The remainder of the thesis presented and compared the narratives through a cross-thematic analysis, with the final chapter providing implications, limitations, and recommendations for future research before a brief conclusion.

PREFACE

This thesis represents an original work by Lawrence Muganga. No part of this work has been previously published.

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Many important people have helped me to realize the dream contained in this thesis.

First, my loving mother has provided invaluable inspiration for me and my siblings, enduring unbearable poverty and suffering to transmit one important message: the determination to make the most out of what God has given me. This thesis represents the product of all of your sacrifices and I pray that society can use it in a way that helps eradicate the poverty in SSA.

My wonderful wife, Eve, has always accepted me and supported my endless ambition and drive. I feel blessed to have such a dependable partner in this journey known as life. Eve, you will always be my shining light that helps to guide me while being a loving mother to our children. My children, the love that you provide every day makes the challenging moments bearable.

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CHAPTER ONE: BACKGROUND TO THE STUDY

This introductory chapter frames the purpose and significance of the research as well as delineates assumptions and beliefs about the topic of student-centered learning in Uganda. In addition, this chapter justifies the research problem, clarifies key definitions, and indicates the overall organization of this thesis. The study purpose and research questions establish the foundation for the literature review in Chapter Two and the research methodology in Chapter Three. The results generated and articulated in Chapters Four and Five are discussed in light of the research questions, purpose, and literature review in Chapter Six. Finally, Chapter Seven concludes with the strengths, limitations, implications for practice and further research.

Background

Many studies have outlined the state of postsecondary pedagogy in Sub-Saharan Africa (SSA) (Akankwasa, 1997; Kagoda 1997; Uganda National Council for Higher Education – NCHE (2012-2013); UWEZO Reports (2013, 2015). This research has exposed the paucity of student-centred methodologies in SSA, including authentic learning (AL) and Indigenous African Education (IAE), especially in postsecondary education (PSE). However, these studies have neglected to explore instructors' experiences with pedagogical approaches. Among all SSA nations, Uganda stands to reap the most benefits for improved pedagogical approaches due to its status as an education hub for the East African Community. According to Uganda's Government White Paper on Education for Sustainable National Development (1992), Uganda's PSE serves as the fulcrum for the country to achieve all social, economic, and political goals (Uganda Government Agenda, 2040). The reports indicate that postsecondary school pedagogy has lacked depth and effectiveness (UWEZO, 2015), resulting in the production of university graduates deprived of the necessary skills for driving growth within SSA countries.

Pedagogical methods can exist along a spectrum from wholly teacher-centered to completely student-centered. Wright (2011) argues that teaching approaches are classified on the basis of five dimensions: power balance, course content function, teacher and student roles, responsibility for learning, and assessment purposes and processes. Teachers or instructors can meet the criteria for student-centered learning along some dimensions and teacher-centered learning along others, thus qualifying their approach as a hybrid methodology. However, this dissertation assumes that teachers or instructors adopt mainly teacher-centered or student-centered teaching methods based on the dominant pedagogical characteristics of their method, discussed further in the definition section of this thesis and again in Chapter 2.

Studies attest to the persistence of teacher-centered methods at all levels of SSA schooling, including PSE (Nsereko-Munakukaama, 1997; Vavrus, Thomas, & Bartlett, 2011). This present research isolated various challenges underlying these methods and the limitations to student learning and economic growth that such approaches pose. Other research posits the need for student-centered learning methods in SSA along with the barriers to such methods and suggestions for overcoming barriers. Despite this body of current work, the literature reveals gaps about instructors' perspectives on how to integrate pedagogical methods aimed at AL. To address these gaps and confine the scope of the research solely to Uganda, the present study aimed to explore the ways in which university instructors in Uganda experience and understand various pedagogical approaches, especially student-centered approaches such as AL and IAE.

Sub Saharan African (SSA) Postsecondary Education (PSE)

Among all levels of education in Uganda, this study focused exclusively on PSE, which refers to the education provided in universities, colleges, and other tertiary educational facilities. Unlike teachers at other levels of education, PSE instructors have the widest scope of influence on educational stakeholders through the values and beliefs from their teacher education and program

curricula. For the majority of SSA countries, including Uganda, PSE originated from European colonial governments and missionaries (Kasozi, 2003; Mazrui, 1975; Senteza-Kajubi, 1984). Consequently, many of the PSE institutions followed the philosophy and pedagogy of their founders; in this case, philosophy incorporates beliefs, values, and knowledge, while pedagogy involves the processes of teaching and learning (Muwagga, 2006). The aim of colonial PSE institutions pivoted on the need to train and create an elite ruling class built on the European model of civilization (Mamdani, 1976). Unfortunately, for most of SSA, PSE has failed to address most of the pressing challenges due, at least in part, to the replication of outdated teacher-centered methods of teaching and learning that emanated from nineteenth century colonial Europe.

Challenges to SSA Postsecondary School Pedagogy

The teacher-centered approaches used in Uganda and other parts of SSA rely on teacher-directed learning through lectures, memorization of isolated facts, and summative assessments that regurgitate lecture material (Vavrus et al., 2011). To this day, most SSA PSE systems and the associated pedagogical approaches to teaching assume that students learn the same way, arrive at school by the same methods, and share the same passions and interests. This system also believes that students translate rote memorization into real-life application of learned concepts (Muganga, 2015). The devastating effects of these teaching approaches result in the production of graduates that lack the ability to contribute meaningfully to the contemporary workforce, which relies on creativity, innovation, problem-solving, and critical thinking (Sawyer, 2008).

By implementing liberalization and privatization economics, SSA governments have attempted to improve PSE outcomes. According to Muwagga (2006), many SSA countries have rapidly liberalized PSE by encouraging earlier access to this level of education. This philosophy has strived to reduce inequality between the different classes and create opportunities for disadvantaged groups as well as transform society in terms of moral, intellectual, ideological,

cultural and social development. For most of SSA, the governments recognize the need to enhance the national goals of unity, democracy, economic progress, and security (Uganda's Government White Paper on Education for Sustainable Development, 1992). Thus, SSA requires the introduction of learner-centered pedagogies to align with current political goals. Despite the existence of various learner-centered teaching methods, this study focused exclusively on the methodologies of AL and IAE.

The Study Context

Geographical Scope

Although all of SSA represents an ideal territory for examining student-centered learning methods, the limited scope of the thesis focused on one country, which, due to Uganda's noble social, political, and economic aspirations (Uganda's Government White Paper on Education for Sustainable National Development, 1992), constitutes Uganda. Uganda, located in East Africa, borders Kenya in the east, Democratic Republic of Congo in the west, South Sudan in the north, and Rwanda and Tanzania in the South. Uganda constitutes a former British colony with a population growth of 3.4% and a life expectancy of 51 years for men and 52 years for women (National Population Census, 2012). Uganda inherited its education system from the British colonial model, which is classified into the following educational levels:

1. One or two years of pre-primary education – 0 to five years of age.
2. Seven years of primary education – six to 12 years of age.
3. Four years of lower secondary education – 13 to 16 years of age.
4. Two years of upper secondary education – 17 to 19 years of age.
5. Two to five years of PSE or tertiary education - 19+ years of age.

This study targeted level five of Uganda's Education System, PSE education.

Historical Development of Education in Uganda

Anglican and Catholic missionaries established the first Ugandan schools in 1877 and 1879 respectively. Specifically, Roman Catholic missionaries opened the first tertiary institution, Katigondo National Seminary, in 1911. The first university, Makerere University, was founded in 1922 by the colonial government; however, the first private universities were not established until 1992. As of 2014, Uganda featured six public and 31 private universities, totaling 37 fully registered universities. Uganda's university subsector registered a growth of 8.8% and constituted 18% of Uganda's PSE in 2014 (NCHE Report, 2014). These numbers demonstrate that although education, especially PSE, underwent late development in Uganda, recent figures imply high growth levels, thus justifying Uganda as the geographical focus for improved pedagogical methods.

Study Justification and Introducing the Research Problem

The teacher-centered education model in Uganda undermines the possibility of graduates reaching their potential and adapting to the contemporary creative economies that require human resources with twenty-first century skills and practical experience (Muganga, 2015). These modern-day skills, referred to as "soft skills," include communication, collaboration, problem-solving, critical thinking, creativity, and innovation (Sawyer, 2008). While teacher-centered models fail to deliver these competencies, student-centered learning teaches students these vital skills (Barron & Darling Hammond, 2008). Therefore, the adoption of student-centered models will help graduates to gain the skills needed to drive economic transformation in Uganda and other SSA regions.

While studies have been conducted in the area of Ugandan PSE pedagogy, education practitioners and employers in SSA continue to highlight the lack of employable skills among SSA postsecondary school graduates as well as the absence of effective pedagogical approaches in PSE policy and practice. In particular, a lack of SSA scholarship illustrates the perceptions of PSE instructors about their pedagogical experiences as teachers. Although the literature extensively

documents the challenge of effective postsecondary school pedagogical approaches (IUCEA report, 2014; Kasozi, 2003; Mamdani, 2007; UWEZO, 2015), no existing study, to the best of the author's knowledge, presents the perspective of PSE instructors in implementing student-centered pedagogical approaches such as AL and IAE. Accordingly, this study aimed to explore the perceptions, experiences, and challenges of PSE instructors for implementing student-centered pedagogical approaches as well as the degree to which such approaches are important, implemented, and supported at the university level by education managers, policymakers, the labour market, and international funding agencies.

Statement of Research Problem

Universities across the globe are increasingly challenged to prepare students for life in community, business, and industry. This challenge is enhanced in underdeveloped countries due to limited resources and infrastructure, which lead to poor learning outcomes. Due to employers' requirements for the soft skills relevant to the knowledge-based economy (Sawyer, 2008), universities need to adopt pedagogical methods that provide students with these abilities and prepare them adequately for the workforce, thus addressing learning gaps and skill deficits in the labor market. Accordingly, learning methods grounded in real-life contexts could help postsecondary schools to respond to the challenges of this modern environment by encouraging instructors to use student-centered teaching and learning methods (Hénard & Roseveare, 2012).

The literature suggests that university graduates from East African Universities lack the required skills to drive growth within their countries. Nganga (2014) described at least half of the graduates produced by East African universities as unprepared for the labor force. In addition, a study undertaken by the Inter-University Council for East Africa (2014) confirmed employers' concerns that most graduates lack adequate preparation for the twenty-first century job market. The Inter-University Council for East Africa (IUCEA), which regulates higher education in the East

African Community's five countries, Uganda, Kenya, Tanzania, Burundi, and Rwanda, found that Uganda has the highest proportion of graduates (63%) that lack job market skills (IUCEA Report, 2014). This concern has been further articulated by different reports, such as UWEZO Reports (2015), which indicate that university graduates from East African Universities lack the soft skills required by employers, thus enhancing their difficulty in finding work or starting a business.

Many of the traditional postsecondary pedagogical approaches, especially teacher-centered methods, have failed to engage Ugandan students in ways that create meaningful, useful, and shared outcomes from their learning (Kasozi, 2003; Mamdani, 2007). Such teaching methodologies tend to disregard real-life or simulated tasks that provide the learner with opportunities to connect directly with the real world. The teacher-centered pedagogical approaches used in Ugandan postsecondary learning provide theoretical discussions of topics and assess students through the regurgitation of information in a traditional industrial age modality. Furthermore, most pedagogical approaches continue to ignore cognitive science research advocating for ways to support meaningful learning by exploring a variety of skills with real world applications. Several scholars suggest that constrained PSE pedagogical approaches continue to hinder students in SSA, especially Uganda, proposing that student-centered learning could support and encourage students to create tangible and useful products relevant to their community and society (Kasozi, 2003; Mamdani, 2007).

Despite existing SSA scholarship of PSE pedagogical approaches, the current body of literature has neglected to articulate the voices of PSE instructors, who represent a key stakeholder. Specifically, a paucity SSA research has explored instructors' perceptions of their experiences with PSE pedagogical approaches, especially the importance and implementation of AL and IAE. OCED (2012) views student-centered approaches and other innovative methods as the answer to employer demands that SSA PSE should produce graduates prepared to enter a labor market characterized by greater uncertainty, speed, risk, complexity, and interdisciplinary work. Therefore, this study sought

to give university instructors a voice by investigating their perceptions and experiences of PSE pedagogical approaches. Specifically, this qualitative study investigated instructors' perceived experiences about the importance, implementation, and support of student-centered learning at the PSE level in SSA. The findings of this study provided insights into issues related to postsecondary pedagogical approaches and processes in not only Uganda but also SSA.

Purpose of the Study

The purpose of this study aimed to gain further understanding about PSE instructors' perceptions of their pedagogical approaches, including the implementation of student-centered instructional methodologies, such as AL and IAE, for postsecondary schools in Uganda.

In particular, this exploration acquired information about the following four objectives:

1. The nature of postsecondary pedagogy and instructional techniques in Uganda.
2. The way in which instructors view AL and IAE as pedagogical approaches.
3. The implementation of AL and IAE in Ugandan postsecondary school institutions.
4. The degree of support from educational managers, policymakers, the labour market, and international funding agencies, for the inception and implementation of AL and IAE in Ugandan PSE.

Research Questions

Based on the study purpose and objectives, the following research questions guide this study:

1. What are instructors' perceptions of their experiences with postsecondary pedagogical approaches or instructional methodologies implemented in their university?
2. What are instructors' perceptions of their experiences with the degree to which AL is important, implemented, and supported at the university level?

3. What are instructors' perceptions of the IAE pedagogy and how they relate it to their current postsecondary instructional methodologies?
4. How do instructors perceive the way in which teaching and learning in Ugandan PSE can undergo improvement?

Significance of the Study

The results of this study provided insights into postsecondary pedagogical processes and contributed to an understanding of Ugandan PSE instructors' perceptions of AL and IAE. Moreover, the study findings can ideally stimulate a dialogue among Ugandan policymakers and educational stakeholders about pedagogical approaches in the postsecondary academic preparation of students, contributing to educational policy change in these institutions. In addition to instructors, the stakeholders targeted in the study include PSE institutions, educational managers, national curriculum development centers, educational policymakers, university leaders, practitioners of quality teaching, provosts, vice-rectors of academic affairs, teaching and learning improvement centers, deans, program leaders, support staff, members of internal and external quality assurance bodies, corporations, entrepreneurs, international funding agencies, and researchers.

Therefore, this study aimed to make a significant contribution towards postsecondary school pedagogy in Uganda and potentially other SSA countries. Specifically, the conclusions of the proposed study may contribute to a more comprehensive understanding of instructors' requirements for continuing to explore student-centered learning and encourage teaching for meaningful learning in SSA. The study's results may also have implications for educational managers to improve their support of instructors and governments to modify curricula and increase funding. Ideally, the findings of this study may encourage a conversation among PSE stakeholders about improving PSE pedagogical approaches to trigger a more enabling education system that supports meaningful learning in not only Uganda but also throughout all of SSA. The findings of this study could

potentially address contemporary labor market demands by equipping graduates with real-world skills that enhance their employability and thus achieve economic transformation in these countries.

Assumptions of the Study

This study has been guided and influenced by several assumptions:

- PSE instructors represent a key educational stakeholder group for discussing the challenges of higher education pedagogical approaches;
- PSE stakeholders in SSA continue to perceive ineffective postsecondary school pedagogical approaches as barriers to teaching for meaningful learning and feel motivated to continue their search for promising practices through collaborative dialogue;
- Employers hold legitimate concerns that most SSA university graduates lack adequate preparation for the twenty-first century job market due to a paucity of soft skills;
- Employers' concerns that most SSA PSE graduates lack preparation for the modern job market have been largely attributed to teacher-centered PSE pedagogical processes;
- Student-centered methods such as AL and IAE will continue to provide students with the necessary skills for the job market as the economy continues to evolve in the future;
- Postsecondary schools in SSA can overcome existing barriers to implement AL and IAE.

Beliefs Underpinning the Study

One of the prevailing themes throughout the history of education emphasizes that school systems can lag significantly behind ideas, theories, and beliefs concerning students, learning, and education. Scholars and educators have reached an overwhelming consensus that today's schools, in many parts of the world, represent a flawed system. Gray (2008) argues that the continued existence of formal and standardized education systems represents flawed assumptions about students and the way in which they learn. In fact, George Bernard Shaw even commented that school, via its bureaucratic mechanisms, "interrupted" his education (Adeyemi & Adeyinka, 2002). Locke's

suggestion that schools train the faculties of reasoning still persists in many of today's curricula and pedagogical philosophies. In contrast, Rousseau's analogy between children and plants, which perceives children as unique entities that require natural stimulation, has only been addressed by a few isolated schools in the late twentieth and early twenty-first centuries (Guisepi, 2007). Thus, despite revolutionary educational philosophies that have existed for more than a century, most schools, especially in third-world countries such as SSA nations, remain entrenched in older ideals.

The theoretical beliefs informing this study incorporate modern pedagogical methods articulated in the philosophies of western education. Specifically, John Dewey (1916) established the foundation for student-centered approaches through his theory of constructivism, where students build their own learning through environmental exploration. Dewey's statement that the school system fails to provide children with tools that they can apply to the real world strongly reflects the current situation with SSA education systems, where PSE students experience limited opportunities to apply learning to the real world. In addition to hampering the socio-economic transformation of the region, SSA pedagogical approaches have contributed towards credential inflation, where educational credentials have increased more rapidly than job requirements. This issue has resulted in a workforce filled with overeducated and underemployed graduates (Vaisey, 2004; Van de Werfhorst & Anderson, 2005), many of whom lack the soft skills to develop ideas in the workplace or create entrepreneurial ventures. The governments still lack concrete policies and programs to counter this growing trend despite a workforce that demands graduates with practical skills.

Based on the inability of most SSA university graduates to meaningfully contribute to the economy, SSA PSE pedagogical approaches require a wholesale paradigmatic shift from the traditional teacher-centered pedagogy to a student-centered approach that includes the perspectives of PSE instructors in pedagogical improvement. Such models would enable these nations to introduce the real world into their classrooms by giving students the opportunity to solve realistic

problems as well as acquire skills, competencies, and experiences necessary for meeting contemporary workplace demands. These student-centered learning systems will result in the creation of competent human capital ready for socio-economic transformation in SSA. The transformation towards meaningful learning environments with real-world problems and projects enables diverse learners to construct their own knowledge and to develop their talents in effective and potent ways, thus stimulating the stagnant economies of SSA.

As the subsequent chapter illustrates, student-centered initiatives have been ongoing in developed countries for several decades (Campbell, Robinson, Neelands, Hewston, & Mazzoli, 2007). AL initiatives in developed countries demonstrate the potential for other regions, including SSA, to transform their education systems. Sir Ken Robinson (2009) asserts that education requires transformation to a more personalized and meaningful approach that enables each child to discover his/her talents and passions. SSA countries remain in dire need of human capital with the hands-on skills required to pursue socioeconomic transformation. Accordingly, these nations ought to shift from the traditional, teacher-centered education system to a student-centered system featuring learning methodologies such as AL and IAE. This transformation will empower PSE students with skills that fulfill the social economic demands of the creative economies of the twenty-first century.

Definition of Terms

Authentic Learning (AL): AL refers to a style of learning that emanates from constructivism, where students create knowledge through an independent exploration of their environment (Dewey, 1916). Specifically, AL encourages students to produce and reflect upon a tangible, useful product shared with their world. In this method, teachers or instructors facilitate or guide the process by posing a motivational challenge and providing the necessary resources to support student success. This approach connects theoretical material to real-world issues, problems, and applications to enhance students' opportunities for success in the modern economy (Revington,

2016). Some of the learning contexts for AL include independent study, project-based learning, collaborative learning, experimentation, and real-world experience (Hénard & Roseveare, 2012).

Constructivism: One of the precursors to modern student-centered learning, constructivism was pioneered by John Dewey (1916) and advocated that students created their own learning experiences by independently exploring their environment and building knowledge from it.

Creative Economy: First coined by Howkins (2001), this term describes the modern, knowledge-based twenty-first century economy that involves transactions of creative products. Howkins describes these products as “an economic good or service that results from creativity and has economic value” (p. viii). The soft skills required for the contemporary creative economy include innovation, problem-solving, critical thinking, and collaboration.

Indigenous African Education (IAE): This term refers to a system of education where African children learned by exploring their environment, acquiring knowledge of real-world aspects, and practicing their learning through “doing” rather than “knowing” (Darisoan, 2012)

Instructors: While teachers deliver education to primary and secondary school students, instructors deliver education at the postsecondary level. Thus, this thesis focuses specifically on the education provided by postsecondary instructors rather than teachers.

Postsecondary Education (PSE): Postsecondary education, also known as tertiary education, refers to the teaching and learning experiences provided to students after their graduation of secondary school and intends to prepare students for a vocation or career. This level of education incorporates several different types of institutions, including university, college, and polytechnics. For the purposes of this study, however, PSE refers mainly to university.

Soft skills: Several education reformers have used this term to describe the essential skills required by students and graduates to succeed in the twenty-first century, knowledge-based economy. These abilities include diverse competencies such as civic literacy, creativity, innovation,

global awareness, critical thinking, problem solving, technology literacy, and collaboration.

Although traditional education curricula and goals sometimes neglect these abilities (Naylor, 2011), most employers in the majority of fields require these transferable skills.

Student-centered learning: In contrast to teacher-centered learning, student-centered learning refers to a variety of modern pedagogical methods, such as AL, that place students at the center of the learning experience and guide them to independently discover their own knowledge through explorations of their environment and real-world interests.

Sub – Saharan Africa (SSA): SSA comprises the portion of Africa that lies south of the Sahara Desert, incorporating 48 countries, including Uganda, and one territory. Historically referred to as “Black Africa” to distinguish it from Arabic North Africa, SSA once constituted an area with potential for economic growth. However, the region currently represents one of the poorest and least developed populations in the world, receiving help from international aid agencies (Tyler & Gopal, 2010). Among all SSA regions, this study focuses specifically on Uganda.

Teacher: In this thesis, the term “teacher” refers to the individual(s) that deliver education at the primary and secondary levels or when discussing all levels of education in general.

Teacher-centered learning: In this educational model, teachers or instructors provide standardized education to all students through the uniform method of lectures, the presentation of isolated theoretical facts, and the regurgitation of material on formalized assessments.

Organization of Thesis

This thesis is organized into seven chapters with appendices and references. The current chapter, Chapter One, introduced the study by providing the context for the research that relates PSE challenges in SSA to the need for a comprehensive investigation into the pedagogical experiences of SSA PSE instructors. The chapter further highlighted the study purpose, objectives, research questions, study significance, assumptions, beliefs, and definitions of terms. Chapter Two

reviews the available literature that provided the impetus for this study. This chapter presents a theoretical framework guiding this study and an overview of the context regarding student-centered pedagogical approaches in both developed and developing countries, especially SSA. In addition, the existing theoretical and empirical literature on AL highlights specific research regarding a) the place of AL in SSA PSE policies and practices; b) available examples of teaching and learning through student-centered approaches in SSA; and c) possible reasons behind the inability or reluctance of SSA PSE to embrace and implement student-centered learning as a potential pedagogical approach that contributes to meaningful learning for Ugandan PSE students.

Chapter Three presents a research strategy comprising a qualitative methodology of interpretivism, and specifically, the case study method, to address instructors' pedagogical experiences in the process of teaching university in Uganda. In addition, a detailed research plan highlights a description of the qualitative approach used to produce a comprehensive investigation of instructors' perceived pedagogical experiences. A pilot study precedes the description of the research plan, which includes sampling and population considerations. Subsequently, the data collection and analysis procedures followed by validation and ethical processes are explained.

Chapters Four and Five provide the results from the interviews and classroom observations. Chapter Four presents a case-by-case analysis of each instructor organized around unique themes that emerge from each individual case, resulting in the rendering of six distinct instances of student-centered teaching approaches. The next chapter, Chapter Five, presents a cross-case analysis that compares the six cases on the basis of patterns guided by the four major research questions. Chapter Six relates the findings from the previous two chapters back to the literature review in Chapter Two to address the purpose and objectives of the study. Finally, Chapter Seven, the concluding chapter, suggests implications, strengths, limitations, and future research prior to a brief conclusion.

CHAPTER TWO: LITERATURE REVIEW

While the previous chapter established the background, context, and purpose of the study, this chapter provides a review of the available literature on SSA PSE, with a specific focus on the student-centered methods of AL and IAE. Specifically, the purpose of this study aims to gain further understanding about Ugandan PSE instructors' perceptions of their pedagogical approaches, including the implementation of student-centered instructional methodologies, such as AL and IAE. The first part of this chapter examines the bipartite theoretical framework underpinning the study, illustrating the differences between teacher-centered and student-centered learning along with the evolution of student-centered learning from Dewey's constructivism to AL and IAE. Subsequently, this review provides an overview about the current state of education in SSA and insights into the cross-cultural differences pertaining to student-centered learning. Finally, the latter part of the chapter discusses existing gaps in SSA PSE and proposes feasible changes that these systems can implement to improve postsecondary school pedagogy and prepare graduates for the labor market.

Theoretical Framework

The theoretical framework underpinning this study embraces a twofold approach: student-centered learning, especially AL, and IAE. The first approach, pioneered by John Dewey in the first half of the twentieth century, has expanded into a range of modern student-centered learning methods, including AL (Dewey, 1916). The second part of the theoretical framework, IAE, refers to an informal system of education that encouraged students to explore their environment, acquire knowledge of the real world, and practice their learning through active participation rather than direct instruction (Darisoan, 2012).

Authentic Learning (AL)

The first part of the framework, AL, originated out of the evolution from teacher-centered to student-centered learning. Specifically, AL represents an offshoot of John Dewey's educational

philosophy, constructivism, which mandated that the educational experience begin with the student rather than the teacher. This section begins with a distinction between teacher-centered and student-centered learning before proceeding to discuss Dewey's theory and eventually AL.

From teacher centered-learning to student-centered learning. Traditional methods of education involve teacher-centered learning, where teachers select the material, provide direct instruction through lecturing, impart factual information, provide the same information to mass groups of students, teach students by rote, and assess students by means of paper and pencil tests (Varvus et al., 2011). This style of teaching assumes that all students possess similar strengths, interests, requirements, and learning styles. At the PSE level, teacher-centered learning is delivered through the lecture method. Although Kaur (2017) distinguishes between lecture strategies that involve varying levels of student participation, the lecture method “usually implies little to no class participation” (p. 10) and hence “is inappropriate as an all-purpose method” (p. 9). Furthermore, the lecture method generally accompanies other teacher-centered learning tools, such as the memorization of factual information and standardized assessments. Due to the lack of student participation and the teacher's control of the material, this dissertation classifies the lecture method as a teacher-centered learning method for the purpose of clarity.

In recent decades, many countries, especially those in the westernized world, have replaced these traditional education methods with student-centered learning, where teachers design the curriculum around student interests. Unlike teacher-centered approaches, such as direct lecturing, student-centered approaches challenge students to actively create their own knowledge through real-world experiences as well as activities and assessments of their choosing. In this type of learning, instructors teach students the skills required to discover their own knowledge (Froyd & Simpson, 2008). These skills, which include collaboration, problem solving, and critical thinking, coincide with those required in the creative economy (Sawyer, 2008).

John Dewey and constructivism. One of the pioneers for student-centered learning, John Dewey (1916), based his educational philosophy on the relationship between education and democracy, where learners comprise autonomous entities that can freely engage in their own intellectual inquiry (Kucey & Parsons, 2012). One of Dewey's principles involves the integration between theory and practice (Westbrook, 1993). Dewey opposed the model of students as "blank slates" requiring the input of information; rather, Dewey believed that each student brought his/her unique personal knowledge and experience to the classroom (Dewey, 1916). He proposed that teachers or instructors should build upon students' existing knowledge through scaffolding, where new material builds upon prior information. Dewey suggested instruction through creative approaches, such as problem solving as a means of guiding student inquiry (Dewey, 1916; Radu, 2011; Westbrook, 1993), which forms the basis for one of the methods that student-centered education incorporates today. Dewey's educational philosophy led to the emergence of student-centered learning, where teachers or instructors have the responsibility to engage students in a meaningful, personal, and realistic way.

Student-centered learning. Student-centered learning emanates from constructivism, where each individual learner constructs or builds knowledge based on existing information (Fry et al., 2009). In student-centered learning, students function as co-designers of the curriculum and their learning environments. Specifically, students engaged in this process establish their own learning goals, create a reflective process, and take learning outside of the classroom (Bray & McClaskey, 2015; Campbell et al., 2007). Kanuka (2010) elaborates, arguing that a student-centered approach prioritizes the experience of students over that of their instructors. Teachers and instructors can employ student-centered learning at all levels of education, including primary, secondary, and tertiary schooling. Some features of student-centered learning involve the use of real-world materials, open-ended questions, cooperative learning, active learning, and inquiry-based

investigations as well as the development of critical thinking and problem-solving skills (Barron & Darling-Hammond, 2008; Varvus et al., 2011). While summative assessment tests a student's acquisition of knowledge after a unit of study, formative assessment occurs throughout the duration of a unit and has resulted in better learning outcomes (Stull, Varnum, Ducette, Schiller, & Bernacki, 2011). Based on the general category of student-centered learning, many specific forms of this learning have emerged in the last three decades, including collaborative learning, inquiry-based learning, problem-based learning, project-based learning, game-based learning, question-directed instruction, and peer instruction (Froyd & Simpson, 2008). However, this dissertation focuses exclusively on AL and IAE as important subcategories of student-centered learning.

Authentic learning. Unlike the other forms of student-centered learning, AL extends the students' learning beyond the confines of the classroom and produces a tangible outcome that students share with their community (Revington, 2016). However, the term "authentic learning" contains controversy in the educational literature. Most authors broadly define AL as an educational approach that provides real-life contexts for learning (Renzulli, Gentry, & Reis, 2004). Due to its broad nature, AL encompasses and integrates all phases of the teaching and learning process, including planning, delivery, assessment, and evaluation (Fry, Ketteridge, & Marshall, 2009; Maina, 2004; Peterson, 2002). AL resembles constructivism in its attempt to help students to construct personal meaning out of their learning experiences by connecting previous knowledge with new information (Mims, 2003). While Mattar (2010) classifies AL under the general category of constructivism, Maina (2004) considers AL as a principle that comprises all forms of constructivist learning. However, Revington (2016) departs from these perspectives to differentiate AL from constructivism by virtue of its location in the community rather than classroom. Furthermore, controversy exists pertaining to the ideological placement of AL in conjunction with other forms of active, student-centered learning, such as experiential learning (Knobloch, 2003).

In order to resolve this controversy, this study uses the conceptual framework of AL articulated by Steve Revington (2016). Unlike most other scholars, Revington provides a sound definition of AL and distinct criteria that AL must fulfill. Jan Herrington's model of AL, like that of Revington, articulates specific guidelines for AL environments (Herrington, 2009; Herrington, & Herrington, 2006; Herrington & Herrington, 2007; Herrington, & Oliver, 2000; Oldfield & Herrington, 2012, Oliver, Herrington, & Reeves, 2010; Parker, Maor, & Herrington, 2013). Herrington's criteria include authentic learning contexts; authentic activities; access to expert performances; multiple roles and perspectives; collaborative knowledge construction; reflection to enable abstractions; articulation of tacit knowledge; coaching and scaffolding; and authentic assessment (Herrington & Oliver, 2000). While Herrington's principles, obtained from a wide body of literature and cited extensively by subsequent research (Herrington & Oliver, 2000), represent a more internationally-renowned model of AL than that of Revington (2016), Revington's criteria align more closely with the other major pillar of this study, IAE, as shown in subsequent sections.

According to Revington, AL is "real life learning...that encourages students to create a tangible, useful product to be shared with their world" (para. 1). Revington differentiates AL from other forms of student-centered learning on the basis of its involvement in the community or real world. His elements of AL include a) a tangible product; b) a clearly-defined community audience; c) design-back planning; d) well-defined criteria; e) role playing; f) integrated subjects; g) blended scheduling; h) collaboration; i) personalized experience; j) portfolios; k) master consultation; and l) community involvement (Revington, 2016). Revington's criteria for AL align with some of those articulated by Herrington (Herrington & Oliver, 2000): both scholars emphasize the importance of collaboration, diverse roles, expert consultation, facilitation, and supportive environments. However, Revington takes AL outside of the classroom and into the community, which relates

strongly to the principles of IAE, especially the elements of tangible product, community audience, role playing, integrated subjects, collaboration, master consultation, and community involvement.

When classifying Revington's 12 elements of AL, several categories emerge, including the product, the audience, the planning, the teacher's role, and the student's role. Furthermore, these parts demonstrate an interrelationship to one another, where the teacher plans the AL experience to involve a specific product for delivery to an audience by a group of students. First, a tangible product contains the characteristics of being "original" and "shared with the world," thus indicating the importance of involving the community (Revington, 2016, para. 2). The second element requires a community audience to which the tangible product or service is targeted. In order to achieve this purpose, teachers and students must obtain information from community experts, hence relating to the elements of master consultation and community involvement. Third, the concept of design-back planning begins with the establishment of the target audience and purpose of the product before outlining aspects such as "skill sets, support information, curriculum connections, learning processes, human and material resources" (Revington, 2016, para. 5). The fourth element, the well-defined criteria, corresponds to the planning and the audience as well as includes quality expectations communicated with students and other stakeholders. Unlike Herrington, who emphasizes scaffolding as a linear process through its ability to "take [students] to the next stage" (Herrington & Oliver, 2000, p. 20), Revington (2016) asserts that "skill development resembles spirals rather than rigid steps" (para. 6), hence accounting for mistakes and failures.

Revington's fifth element, role playing, encourages students to fully immerse themselves in the role of another person or profession, thus increasing their motivation and productivity. Role playing relates to collaboration, especially when students assume "a role of a position within a team" with "a specific job description" (para. 7). The element of integrated subject areas relates to the real world, because "in real life situations, most undertakings are not subject specific" (para. 8).

The integration of subject areas teaches students the well-defined criteria highlighted in element four and relates to the seventh element, blended scheduling, where the “subject timetable goes out the window” (Revington, 2016, para. 8). In blended scheduling, teachers set aside large blocks of time to implement and deliver AL activities and experiences rather than specific subject areas, thus allowing “for creativity and deeper focus to flourish” (para. 9). The eighth element, collaboration, involves a team-based approach that fosters the development of team skills through partnerships as well as small-group and large-group activities. Through these scenarios, students learn social interaction and cooperation, skills that are required in the real world and labor market.

The ninth element, personalized experience, provides students with the opportunity to “explore their personal interests and creativity” (Revington, 2016, para. 13). This element not only involves the real-world skill of creativity, thus corresponding to the development of a tangible product, but also acknowledges that different people approach learning with different values, backgrounds, and interests. Personalized experience results in the development of individual student portfolios, which constitutes the tenth element. Portfolios comprise “a collection of papers and artifacts of learning that support student research, record ideas, drafts, consultation notes, lists, diagrams, worksheets, reflection notes, articles, dimensions and even budgets” (para. 15). These tools relate to the labor market because “they are essential in the workplace just as any designer or executive would have them” (para. 15). Revington’s eleventh element, master consultation, encourages teachers and students to “[connect] to experts in the community who can provide quality input” (para. 16), such as “quality skills, expert consultations, quality resources, workmanship, and planning” (para. 16). This element connects to the community element because “students are interacting directly with the real world” (para. 16). Finally, the element of professional development modifies the teacher’s role from “content dispenser” to an “event coordinator, consultant, or facilitator” (para. 17). When planning AL opportunities, teachers gain new skillsets

and learn about new technologies, products, services, or people, thus allowing them to model new skills and processes for students while maintaining a real-world context.

For the purposes of the study, some of the more pertinent requirements include a tangible product, a clearly defined audience, integrated subjects, blended scheduling, collaboration, personalized experiences, community involvement, and master consultation. In addition, role-playing, group work, and portfolio creation represent some of the student activities that Revington advocates within the domain of AL. Teachers desiring to implement AL should apply design back planning, well-defined criteria, blended scheduling, professional development, and expert skill support to enhance the chances of success in this endeavor (Revington, 2016). Based on Revington's criteria for AL, teachers or instructors, can implement AL in several ways: engaging students in complex and lengthy projects; encouraging students to explore issues from multiple perspectives; facilitating collaborative learning groups and events consisting of diverse learners; and integrating content from multiple subject areas within a single task. Some activities that achieve these objectives include problem-solving, educational games, experiential learning, realistic datasets, simulations of realistic situations, role playing scenarios, personal reflections, work placements, and collaborative group learning (Renzulli et al., 2004; Revington, 2016).

Although Herrington's model of AL (Herrington & Oliver, 2000) has received more international attention than Revington's conceptual framework, Revington's work has recently begun to influence subsequent academic and practical studies of AL at various levels of education throughout the world. Bhagat and Huang (2017) extend Revington's framework to discuss the present-day status of AL and the way in which technology can facilitate AL to make learning more meaningful, enjoyable, and effective for students. Similarly, Roseler (2017) applied Revington's definition of AL as "real, tangible, and useful" to the use of technological applications, such as Google Docs, as an authentic education technology (p. 43). More relevant to PSE, Samsudin, Talip,

Radwan, and Yusof (2014) use Revington's understanding of AL as their theoretical framework for evaluating the effectiveness of AL at a community college in Malaysia. This study yielded positive results, showing that AL improved learning outcomes from the perspectives of both the instructors and the students. The success of this investigation thus attests to the appropriateness of using Revington's model in international studies. Another Malaysian study examines Revington's model of AL among other models for implementing in the National Dual Training System for apprentice-based education (Yahaya, Rasul, & Yasin, 2017). Based on recent literature that serves as a relevant precedent to this study, Revington's model represents a contemporary framework for conceptualizing AL on an international basis. The clarity of Revington's theory and the wide international influence of his work therefore justifies the use of Revington as an acceptable theoretical framework for studying the use of AL in SSA PSE.

Authentic learning in postsecondary education. While some studies discuss the use of AL in primary or secondary education, this study focuses exclusively on the implementation of AL in PSE. Despite the shift from teacher-centered to student centered-learning, many postsecondary instructors still use instructivist models that provide lecturing and rote learning (Parker, Maor & Herrington, 2013). Herrington and Herrington (2006) argue that universities implement teacher-centered methods to follow the tradition of formal university teaching, a style more suited to large lecture halls as well as one that maintains the elitist image associated with higher learning (European Commission, 2014). Thus, many university students lack an understanding of the way in which the knowledge and skills that they learn in the classroom translate into professional practice (Herrington & Herrington, 2006; Jones, Casper, Dermoudy, Osborn & Yates, 2010). Accordingly, several authors support the idea that experiential, hands-on, and real-world learning needs to supplant or at least complement the current abstract, formal education that students receive in universities around the world (Cantor, 1995; Lewis & Williams, 1994; Wurdinger, 2005).

Traditionally, AL has been delivered via outdoor or community-based experiences, such as field trips and outdoor education (Hein 1999; Szczepanski, 2006). In the modern era, AL has attracted increased interest due to evolving technology (Oblinger, 2007). Since students communicate largely through digital media, AL must incorporate these tools (Herrington & Herrington, 2007; Lombardi, 2007). However, teachers have been slow to implement Internet technology into their classroom, as they only began to adopt web-based teaching in the late 2000s (Slepkov, 2008). At the PSE level, technology-mediated environments contribute to AL through online student collaboration; access to electronic resources; interactive digital media that simulates realistic environments; and digital formats that facilitate the preparation of material (Royal Roads University, 2014). Oliver, Herrington, and Reeves (2010) argue that the use of AL in online environments has demonstrated several learner benefits, which include increased access, personalized learning, immediate feedback, time-relevant information, increased accountability, and greater collaboration (Kanuka, 2008). Furthermore, Herrington and Herrington (2006) argue that web-based learning mimics the realistic setting of the jobsite in which prospective graduates plan to work and provides students with resources to solve complex problems. Atkinson (2011) asserts that technology can assist in providing AL through digital simulation, collaborative wikis, graphing calculators, virtual technology, social media, blogging, discussion forums, and mobile computing.

Relevance of authentic learning to labor force. In the current era, postsecondary institutions provide the largest influx of workers into the labor market, thus accounting for the importance of these institutions for a nation's economy (Sattler, 2011). Employers require students to learn transferable skills, which they can acquire through authentic rather than traditional learning environments (Oblinger, 2007). Many postsecondary institutions and programs require students to complete a practical component, which may constitute a work placement, practicum, internship, or a cooperative education experience. However, some classes or programs omit these components,

and, even when such practical field placements exist, the instructor or program may fail to fully facilitate the connection between the theoretical and practical parts. Consequently, the theoretical or classroom portion of the course should incorporate some practical components, thus enabling students to acquire skills that they can apply to the modern workforce (Herrington & Herrington, 2006; Sawyer, 2008). Due to the real-life nature of the activity and the presence of community involvement, AL can enhance students' critical thinking skills relevant for the creative economy, including analyzing, synthesizing, designing, manipulating, creating and evaluating information (Sawyer, 2008).

Proposed initiatives for authentic learning in postsecondary education. AL provides advantageous outcomes that prepare students for their prospective careers by simulating their job environment. Herrington and Herrington (2006) maintained that students should engage in sustained complex experiences that reflect a realistic setting and involve professionals in their field. In guiding the students, teachers assume facilitative rather than instructive roles. Some of these learning methods include collaborative groups, interdisciplinary activities, reflection, and research (Herrington & Herrington, 2006). Miron, O'Sullivan, and McLoughlin (2000) proposed an online learning environment for a first-year computer science class. This methodology provides a realistic setting for students to adapt to their desired career and the knowledge-based workforce and economy. Moreover, Hui and Koplin (2011) investigated AL in a finance class, where students researched class material in relation to their choice of country. This task engaged students in the activity and enhanced their ability to understand and solve real-world problems. Clementz and Pitt (2002) discuss the use of the professional portfolio, where students demonstrate their skills and achievements to various stakeholders, including instructors, preceptors, employers, and graduate schools. The portfolio, articulated by Revington (2016) as a necessary component of AL, displays AL by containing a wide variety of artifacts that connect learning to the real world, including work

samples, photographs, digital media, letters of recommendation, field notes, and transcripts (Clementz & Pitt, 2002). Furthermore, Mariappan, Monemi, and Fan (2005) examine the implementation of service learning, a community-based initiative that relates academic material to community issues. These examples demonstrate the effectiveness of AL at the postsecondary level, both with and without technology.

Indigenous African Education

In addition to AL, the other part of the theoretical framework involves IAE. As highlighted in Chapter One, Uganda and other SSA countries first inherited their contemporary education systems from colonizing countries (NCHE Report, 2014). Upon conquering and colonizing African countries in the 15th century, these European colonizers and accompanying Christian missionaries implemented a structured and regimented school system that alienated African children from their belief system and supplanted their culture, religion, and language with European values (Adeyemi & Adeyinka, 2002). Colonizers took various approaches to implementing formal education throughout the SSA countries, including Kenya, Uganda, Tanganyika, and Zanzibar. In all cases, the ultimate objective of the colonizers aimed to indoctrinate African children into the European belief system and replicate the system of slavery through the instilling of hierarchical structures in both education and society (Ssekamwa & Lugumba, 2002). Within this system, PSE in SSA trained students for diminutive roles within colonial governments, such as subordinate clerks and other administrative roles (Mosweunyane, 2013). This European worldview of structure and order eradicated traditional African beliefs that valued community and collaboration over competition, thus resulting in the eradication of African values and spirituality (Lulat, 2005; Tedla, 1996).

Although these missionaries aspired to “modernize” the schools according to the Christian perception of civilization (Lulat, 2005), the pedagogical methods that implement teacher-centered learning approaches currently lack relevance due to their removal from both the appropriate time

and place. As detailed later in this chapter, western countries have moved forward with student-centered learning methods, while SSA remains trapped in an outmoded education system that not only lacks contemporary relevance but also cultural appropriateness. The existing pedagogical challenges in SSA PSE have inspired various scholars to propose a return to the learning methods of so-called 'primitive' societies, such as hunter-gatherers and African tribes, where children learned through observation and experience with minimal adult guidance (Majoni & Chinyanganya, 2014). Thus, the implementation of IAE would return African students to their cultural roots while incorporating modern-student centered principles.

Adeyemi and Adeyinka (2002) state that the word "education," derived from the Latin root words "educare" and "educere," implies the extraction of potential from the student rather than the implantation of indoctrinated ideas into a child's head. This idea suggests that proper education should contain freedom rather than restriction and subjugation. Furthermore, these authors state that education extends beyond the domain of the schools; the entire community holds responsibility for the education of each of its citizens (Adeyemi & Adeyinka, 2002). Ndofirepi and Ndofirepi (2012) state that African "indigenous education is unlike formal western education in that it is very practical and pragmatic and prepares the individual for life, passing on the values of life that have been evolved from experience and tested in the continuing process of living" (p. 19). These beliefs, originating from pre-colonial African traditional education, suggest the need for a return to the roots of education by stripping away the walls and bureaucratic mechanisms behind today's formal schooling systems and replacing them with a more holistic and realistic approach that prepares the student for vocational and community life.

Due to its practical nature, the principles of IAE can, at least to some extent, address the needs of the labor market. While today's creative economy emphasizes the skills of collaboration, communication, creativity, innovation, analysis, and problem-solving, (Sawyer, 2008), IAE took a

similar approach to the teaching of essential skills of the time with its principles of preparationism, functionalism, communalism, perennialism, and holism. Preparationism readies community members to fulfill their future roles, while functionalism highlights pragmatism and the completion of practical tasks. Whereas communalism strengthens the bonds among group members and mandates cohesion rather than competition, perennialism transmits cultural, linguistic, and religious traditions from one generation to another. Finally, holism facilitates the development of a well-rounded individual through education in many areas, including cultural, economic, and political (Mwinzi, 2015). In fact, the principle of holism supported the learning of all aspects associated with a particular trade; for example, students learning the hunting trade learned about animal care, tool building, hunting techniques, methods for cleaning a carcass, and ways of selling the meat. Similarly, when Indigenous youth learned to build a house, they actually covered many subject areas at once, including geometry, physics, and geography (Adeyemi & Adeyinka, 2002).

In addition to its focus on the acquisition of essential skills, IAE resembles AL in its placement of education within the community. Although IAE neglected the aspect of written literacy, its ideas of preparing students for their role or occupation in the community, encouraging inquisitiveness, teaching culturally relevant material, and using practical activities as learning material hold strong relevance in today's society. In fact, the concept of Ubuntu, or social etiquette, entails a practical notion that teaches children or students values and beliefs such as honesty, wisdom, solidarity, humility, courage, fortitude, morality, and respect for elders as well as how to interact in certain social situations (Ndofirepi & Ndofirepi, 2012). In contemporary PSE, this concept can extend to instructing learners about respect and managing conflict with peers as well as preparing university students for the workforce by teaching them professional behaviour or business etiquette, which, as documented throughout this study, many new graduates lack.

Accordingly, Majoni and Chinyanganya (2014) suggest integrating IAE with contemporary western schooling. In particular, they argue that European education inhibits the connection between formal theoretical education and society by compartmentalizing subject areas. This division of curricular content alienates students from the daily aspects of life, occupations, and community (Majoni & Chinyanganya, 2014). As a result, teachers can combine formal education with activities relevant to cultural and environmental experiences. Some of the learning methodologies and activities in IAE include games, drama, song, dance, role-play, mime, proverbs, agriculture, legends, riddles, drumming, and idioms (Majoni & Chinyanganya, 2014). In IAE, students learn in a variety of ways, including direct observation and participation with adults; storytelling, proverbs, or riddles; competitions amongst children; and object construction (Ndofirepi & Ndofirepi, 2012).

However, one crucial ideological difference between African and western cultures involves the concept of individualism versus collectivism. While western education emphasizes individual values, IAE promoted solidarity and communalism (Ndofirepi & Ndofirepi, 2012). SSA PSE must consider these differences in its educational philosophy, pedagogical methods, content, and assessment. Although Majoni and Chinyanganya (2014) focus their study specifically on primary schools in Zimbabwe, their theoretical contributions can extend into PSE in Uganda as well as throughout SSA. The rich pedagogical methods associated with the IAE model, along with the western implementation of AL, provide an appropriate theoretical grounding for the exploration of SSA instructors' pedagogical experiences.

Education in SSA

This section of the literature review discusses the state of education in SSA in order to provide a detailed geographical context for the study region and highlight the need for improved pedagogical practices. Among all regions in the world, SSA lags behind other countries in most

educational measures, including early childhood education; primary, secondary, and tertiary education; adult literacy; gender, social economic and regional parity; and education quality (EFA, 2014). In recent decades, SSA governments have increased their emphasis on education by expanding budgets, programs, policies, and laws. These initiatives have focused most strongly on primary education, increasing the enrollment rate from 57% to 70% over a five-year span. In addition, gender equality constitutes another area of emphasis. Historically, fewer females than males have attended schools and demonstrated adequate levels of literacy and numeracy (United Nations University, 2008).

Although the last 25 years has witnessed some improvement with the Education for All (EFA) global movement, resulting in 90% of children attending primary school and 35% of youth attending secondary school, these numbers still fall far below the educational enrollment in other countries; moreover, many students fail to complete these educational levels due to factors such as low achievement, poverty, and illness (Vavrus et al., 2011). The United Nations (2011) reported that nearly 30 million students in SSA countries fail to obtain the minimum required education levels; 23 million, or one-third, of the pupils that attend school fall below the minimum learning threshold of achieving even basic literacy or numeracy (UNESCO, 2012; United Nations University, 2008; Watkins, 2013). A relatively high proportion of students in African countries have repeated at least one grade; for example, nearly 20% of students in Rwanda have repeated grades in recent years (World Bank, 2011). This crucial lack of foundational student learning can indicate several deficiencies, including teacher performance, the curricular design, or the method of teaching. While higher enrollment rates increase access to education, it lowers the quality of teaching and learning (DFID, 2012). Due to higher enrollment rates, teacher-student ratios have been as high as 1:100 at all levels (Jaffer, Ng'ambi, & Czerniewicz, 2007; United Nations University, 2008; Zwiers, 2007).

While many SSA students lack educational access for financial, cultural, social, or geographical reasons, the educational philosophies and pedagogical methods in these countries may also contribute to the problem. In fact, many students complete their education but lack the basic skills required in the job market (United Nations, 2011). This reality indicates that the curriculum, materials, and teaching methods represent inadequate aspects of the SSA education system. As previously documented, several studies and reports claim that the poor quality of SSA education adversely affects the workforce, which lacks the level of skilled personnel required for many professions (British Council, 2014; Kasozi, 2003; Mamdani, 2007; UWEZO, 2013). The personal consequences of low educational attainment include intergenerational poverty and restricted access to job opportunities, whereas the economic repercussions involve low purchasing power, an unskilled workforce, and an increased crime rate (United Nations, 2011).

Educational Philosophy and Pedagogical Methods in SSA

As previously mentioned, SSA education contains a teacher-centered pedagogy focusing on memorization and rote learning (Vavrus et al., 2011). This system was initially inherited from the colonial period, where missionaries and colonizing governments indoctrinated African students with European language, culture, and religion while alienating these students from their own roots (NCHE Report, 2014; Nsereko-Munakukaama, 1997). Since that time, educational philosophies have remained constant. Otaala, Maani, and Bakaira (2013) found that most teachers attribute their pedagogical approaches to their education and standardized national exams. These results suggest that teacher training, curriculum design, and examination content should undergo revision as a means of moving away from teacher-centered learning. In addition, teachers can enhance the meaningfulness of students' education through the learning of language and culture that helps to reconnect students to their roots. To this end, several authors have proposed a return to IAE, part of the theoretical framework underlying this study, so that students learn through environmental

exploration, demonstrate their learning in a real-world context, and apply their learning to culturally-relevant situations (Adeyemi & Adeyinka, 2002; Darisoan, 2012; Majoni & Chinyanganya, 2014; Ndofirepi & Ndofirepi, 2012). In addition, Alidou et al. (2006) propose curricula revisions that enable African students to learn their native languages. Specifically, these authors suggest that multilingual language models in schools will boost the social and economic development of SSA countries (Alidou et al., 2006). Despite this promising idea, these authors neglect to discuss the incorporation of student-centered learning.

Many SSA countries are only beginning to understand the importance of pedagogical approaches that enhance the relevance of learning to students. Zwiers (2007) showed that fact-based instruction failed to properly educate teachers and students because people lack the ability to remember factual information after graduation. In the past decade, SSA nations have begun to realize that teachers and instructors need to apply interactive learning approaches and aim to promote skills such as analysis, creativity, problem solving, and critical thinking (UWEZO, 2013; Vavrus et al., 2011). Zwiers (2007) implemented a teacher-training program in Ethiopia that focused on the development of active learning methods in areas of limited resources. This program enabled teachers to critically reflect about the effectiveness of various practices. The results indicate that AL methods enhanced the effectiveness of student learning through active engagement in realistic topics. In addition, this approach promoted the necessary involvement in traditional and community home education practices (Zwiers, 2007). The success of this study reveals the need for other regions, including Uganda, to incorporate similar studies in both teacher training and PSE.

Postsecondary Education in SSA

According to Bloom, Canning, and Chan (2006), SSA countries have the lowest rates of postsecondary enrollment in the world, with a gross enrollment ratio of only five percent. However, the British Council (2014) reports that, “between 2000 and 2010, enrolments more than doubled” in

African postsecondary institutions (p. 2). Despite this recent expansion, the funds designated towards education initiatives have focused mainly on primary and secondary schooling levels to ensure that these students have mastered basic literacy and numeracy skills. Although PSE enrollment has increased, this level of education has experienced challenges with resource and infrastructural limitations (NCHE Report, 2014). An increase in the funds devoted towards tertiary education would greatly assist in the alleviation of poverty and the improvement of economic growth. The British Council (2014) states that additional investments in PSE will increase the skill level of the SSA workforce and avoid unemployment. The anticipated increase in GDP growth rates of 0.24% from investments in PSE would more than offset the initial costs of this funding (Bloom et al., 2006). Other benefits to improving PSE in SSA include the technological advancement of society, improved health and wellness of the citizens, and overall higher quality of life (Materu, 2007). Some proposed changes for enhancing PSE include an increase in publicly funded universities, student loan schemes, partnerships, and private sector involvement (Ssentamu, 2013). These avenues represent additional funding sources that allow SSA universities to manage rapidly growing enrollment rates while increasing the quality of education.

Due to the shortage of funds, PSE institutions in SSA lack adequate resources for providing a quality education, leading to crowded lecture halls, limited facilities, and infrastructural deficiencies (Bunoti, 2010; Traxler & Dearden, 2005; United Nations University, 2008). For example, only one in twenty students has access to computers and only one in nine students can access relevant textbooks (NCHE Report, 2014). In addition, poor quality instructors and outdated teaching methods impede students' ability to learn. Ugandan students report that the instructors exhibit unprofessional behavior, lack adequate preparation, and dictate notes from handouts (Bunoti, 2010), thus showing the perpetuation of teacher-centered approaches in SSA PSE. Teferra and Greijn (2010) report that postgraduate programs merely expand the undergraduate material

rather than specialize and train students for their future careers. In fact, many students move out of the region to pursue PSE in developed countries, leading to “brain drain” and depriving the local or national economy of skilled workers (British Council, 2014, p. 3). Employers increasingly require employees to possess a new range of abilities in the creative, knowledge-based economy (Materu, 2007; Sawyer, 2008); however, many SSA graduates lack employable and transferable skills (British Council, 2014). The low quality of PSE in SSA nations exerts detrimental effects on all parts of the workforce, most notably that of the health care sector. For example, SSA countries experience 24% of the world’s diseases yet constitute only four percent of the world’s workforce, thus illustrating significant gaps in healthcare education (Binagwaho et al., 2013).

Another obstacle to the implementation of student-centered learning in SSA involves the use of technology, which lags behind the rest of the world due to limitations associated with resources and knowledge. Traxler and Dearden (2005) conducted a pilot study that aimed to use Short Message Service (SMS) technology to support teacher education in SSA. This project aimed to develop a distance-based learning program that reduced the geographic isolation of learners and delivered education in a cost-effective and sustainable way. Despite the inconclusive nature of the results, the findings suggest many promising opportunities for enhancing learning and communication as well as fostering greater connections among students, teachers, technologists, administrators, and policy-makers in SSA. Some of the suggested delivery methods include conferences, content delivery, links, reminders, learning resources, and asynchronous conversations (Traxler & Dearden, 2005). However, additional studies are needed to show the effective implementation of technology in the SSA classroom.

Not only do PSE institutions in SSA nations suffer from low funding, enrolment, and resources but they also lack high-quality learning experiences. At the postsecondary level, rare examples of student-centered learning exist. Jaffer et al. (2007) argue that SSA countries need to

implement ICT in order to overcome resource-related barriers, poor teacher training, multilingual student needs, and inadequate curriculum design. Kandiero and Jagero (2014) recently proposed an application of AL, Emerging Technologies, to teach a business mathematics undergraduate course at Africa University in Zimbabwe. These authors found that this approach increased students' motivation to learn yet failed to address the full impact of the methodology due to time limitations. Similarly, Jaffer et al. (2007) suggested the use of spreadsheets for developing mathematical literacy. In her conference paper, Campbell (2013) found that students in a first-year mathematics class provided with access to a database of multi-language video explanations improved their exam results (Campbell, 2013). While these studies demonstrate successful initiatives of AL in SSA PSE, such efforts represent isolated and fragmented examples rather than wholesale changes. In addition, they neglect to solicit the opinions of instructors.

Cross-Cultural Comparison of Authentic Learning

In order to provide a geographical context that demonstrates teaching and learning gaps in SSA, this section discusses the way in which western nations, including Canada, United States, Australia, New Zealand and European countries, have implemented student-centered learning, especially AL, into their classrooms. Subsequently, some developing countries, especially those in Asia and the Middle East, have begun to apply these new learning theories. Since IAE represents an instructional style unique to SSA nations, this section omits a consideration of IAE.

Developed Countries

Emile Durkheim's *Division of Labor in Society* provided the impetus for the gradual workforce shift towards more specialized forms of labor (Durkheim, 1893). This work not only provided the foundation for subsequent sociological theories based upon the study of organizational behavior but also led to developments that initiated a change in educational philosophy (Dobbin, 2009). The notion of student-centered learning began entering the school system approximately 30

years ago in North America. In addition to the influence of Dewey's constructivist theory, this movement was inspired by the requirement for specialized knowledge and skills, such as communication, collaboration, research, synthesis and analysis (Barron & Darling-Hammond, 2008). Humes (2013) echoes this workforce shift and the way in which traditional educational methods fail to prepare graduates to deal with new economic realities, such as the shift to a more creative and specialized economy, where new products and services have been constantly emerging (Howkins, 2001; Sawyer, 2008).

The discrepancy between workforce skills and educational requirements inspired and facilitated changes in education, resulting in curricula and teaching methods that encourage student-centered learning. Many studies have suggested that student-centered learning provides better outcomes than teacher-centered education (Barron & Darling-Hammond, 2008). Most schools that initially incorporated student-centered learning were private, elementary schools that featured small student-teacher ratios, hands-on activities, and cooperative learning, (Depalma, Matusov, & Smith, 2009). However, these schools catered mainly to middle and upper-class families capable of affording the lofty tuition fees. Since that time, student-centered learning has been integrated more thoroughly into the curricula of public schools throughout Canada and the United States. Sattler (2011) discusses the inclusion of work-integrated learning in Ontario's postsecondary sector. This framework sought to enhance linkages between students, instructors, institutions, employers, and community organizations through apprenticeships, professional practice, internships, service learning, fieldwork, and research projects (Sattler, 2011). These policies provide a centralized systematic approach to ensuring that such experiences become embedded into the curricula of western school systems and thus widespread throughout education.

In addition to Canada and the United States, Australia, New Zealand, and many European nations have integrated student-centered learning into the classroom. European postsecondary

institutions have begun incorporating online and interactive learning into the traditional bricks-and-mortar lecture halls. These tools allow teaching and learning to become personalized to each individual student and increase the access of PSE to a wider range of students (European Commission, 2004). Errington (2011) suggests the implementation of scenario-based classroom learning as an alternative or supplement to professional placement programs. This learning strategy provides a transition between the theoretical class material and the workplace. Despite these initiatives, European countries need to alter their philosophical mindset, which conceives higher learning as an elitist institution with limited rather than universal access (European Commission, 2014), in order to make wholesale changes that integrate student-centered learning in PSE.

Stein, Isaacs and Andrews (2004) discuss meaningful student-centered learning experiences in Australian universities, where an instructor attempted to bridge the gap between the artificial nature of the university environment and the real world in a business management course. The implications of the study suggest that postsecondary instructors need to reexamine their beliefs about the nature of student learning and devise a realistic set of learning experiences (Stein et al., 2004). Similarly, Faulkner and Faulkner (2012) examine the implementation of AL for software engineering students, including the use of industry case studies, software tools, and media stories, in an Australian university. These authors contend that such educational experiences provide students with increased motivation and engagement. Oldfield and Herrington (2012) focus explicitly on the use of the mobile tablet for delivering AL experiences to an undergraduate information systems course. In conjunction, these studies demonstrate that universities in Australia, New Zealand, and Europe have implemented student-centered learning approaches in classrooms at the PSE level.

Developing Countries

Despite their history of poverty, many countries in Asia and the Middle East are experiencing emerging economies due to globalization and information technologies. The education

systems of these nations have evolved in response to such technological and economic changes. Today, more than half of the students in South Asia enter secondary school (Watkins, 2013). While developed countries have used student-centered learning for several years, developing countries are only beginning to incorporate these approaches. In fact, Asian countries have been largely influenced by their growing trade connections with western countries, leading to the transmission of educational knowledge amongst these countries (Humes, 2013). Westbrook et al. (2013) found that in developing countries, instructors' use of communication strategies helped to facilitate interactive teaching methods, which subsequently improved learning outcomes. This study found instructors' positive attitudes towards their practice and their students provided them with the ideal mindset for using interactive teaching tools in their classrooms. Some of these practices included sustained feedback, incorporation of student experiences, creation of a safe environment, cooperative learning tasks, real-life materials, student questioning, demonstrations and explanations, use of local languages, and variation of lesson sequences (Westbrook et al., 2013). These examples provide proof that countries with resource limitations can still take advantage of student-centered learning approaches in an effective manner.

In the UAE, Zualkernan (2006) provides a unique framework for the incorporation of student-centered learning, which includes pedagogical design, architectures, environmental context, and learning material. He discusses various AL experiences in the educational environment, including problem-based learning, inquiry-based learning, role-play simulation, game-based learning, case study-based learning, and project-based learning. Safuan and Soh (2013) examine a Turkish initiative in which the implementation of AL with Facebook assisted students in developing analytical thinking, problem solving, and collaboration skills. Neo, Neo, and Tan (2012) studied the use of technology to complement student-centered learning, such as creativity and problem solving. These authors report that although the initial results of such endeavors demonstrate positive student

attitudes towards learning and improved academic results, instructors still lack the knowledge and confidence for designing technology-based learning environments for their students. Focusing on mobile technology, Conejar and Kim (2014) investigate the way in which devices such as phones, tablets, e-readers, apps, and online learning platforms can improve educational access, equity, and quality on a global scale. These authors found that mobile technologies help instructors by supporting their educational practice and improving lesson delivery as well as providing student benefits. The high cost of such devices will continue to decrease, enabling their use in underdeveloped countries (Conejar & Kim, 2014). These studies illustrate that despite successful implementation, instructors require education on the use of these devices.

Despite the limitations experienced in SSA regions, including overcrowding, poverty, and scarce resources, the communication strategies used by teachers and instructors can greatly improve student outcomes (Westbrook et al., 2013). A United Nations report (2011) suggested that underdeveloped countries should learn from the experience of developing countries, especially in the method of delivering education to students. The greater ubiquity of online and mobile technologies will allow learners from all over the world to access resources, thus enhancing educational attainment rates in underdeveloped nations (European Commission, 2014). The European Commission (2014) suggests that online educational resources should comprise free and open access to learners across the world, thus reducing the financial burden of education. These technologies can also enable greater professional development for teachers and increased collaboration among stakeholders of education (European Commission, 2014).

Gaps and Suggested Changes to PSE in SSA

The remainder of this chapter analyzes the current conditions of PSE in SSA countries. While this section discusses the challenges associated with implementing student-centered learning approaches, the final part suggests possible ways of overcoming such barriers.

Barriers to Implementing Change

Several challenges currently exist to the implementation of student-centered learning in SSA. As shown in the following sections, these challenges demonstrate an interdependent relationship with one another, where social, cultural, academic, economic, linguistic, and physical challenges all exist alongside one another.

Limited resources. Many SSA nations face challenges in terms of their financial and human resources. Due to the relative poverty of these areas, many students lack access to education. Although the number of schools has increased throughout Africa, the continued rising rate of population has offset this initiative, with increased enrollment decreased educational quality (Bunoti, 2010). Moreover, health concerns such as malnutrition and illness interfere with the cognitive development and learning potential of pupils. In addition, children in SSA regions are engaged in the workforce, preventing them from attending school (Watkins, 2013). These limitations exist not only with educational facilities but also within the overall infrastructure. Traxler and Deardon (2005) discuss infrastructural barriers in SSA, which include inadequate roads, postal services, electricity, water supply, phone lines, and Internet bandwidth. These challenges affect a teacher's ability to teach and a student's ability to learn (Bunoti, 2010).

Furthermore, the limited technological knowledge and devices for interactive learning present obstacles to implementing student-centered learning approaches in SSA (Barron & Darling-Hammond, 2008; British Council, 2014; Hennessy et al., 2010; Kandiero & Jagero, 2014). The implementation of many AL approaches requires the use of modern technology to permit interaction between the student and the material (Herrington & Herrington, 2007). Conejar and Kim (2014) state that mobile development labs, otherwise known as tech hubs, have recently been implemented in SSA. These authors propose that the personalized learning method entitled Bring Your Own Device (BYOD) can be implemented in underdeveloped nations through subsidies

(Conejar & Kim, 2014). Likewise, Traxler and Dearden (2005) propose a cost-effective method for delivering education via SMS technology.

In order to overcome the limitations associated with technology in SSA, Hein (1999) suggests the possibility of using AL experiences, such as field trips, which have been implemented for several decades in developed nations. While this option represents an inexpensive solution to address needy nations and communities, it may lack feasibility in areas without these community resources. Alidou et al. (2006) propose an interactive experience based on students' work with local animals, which not only provided real-world experiences for the children but also allowed the children to earn money and thus help alleviate poverty concerns. More studies are required to investigate the effectiveness of similar experiences.

Philosophical challenges. In addition to limited resources, SSA nations face philosophical and ideological challenges that resist the implementation of student-centered learning. African education systems lack original ideas and rely heavily on importing foreign ideas and materials, such as languages, curricula, research, and publications from Europe and North America (Teferra & Greijn, 2010). Furthermore, Paludan (2006) discusses the concept of educational inertia, which involves the difficulty of overcoming established values and infusing new ideas into a particular industry or institution (Paludan, 2006). In addition, the extreme cultural, ethnic, religious, and linguistic diversity among students as well as the history of oppressing and segregating demographic groups has hindered the development of new teaching methods (Rudman, 2013).

Due to these ideological challenges, the dominant educational philosophy in SSA remains teacher-centered due to the belief that student-centered learning undermines the authority of the teachers (Paludan, 2006). While Westerners place heavy emphasis on the individual, East Asia and African countries focus on the group or community as a collective entity (Vavrus et al., 2011). African students perceive teachers as distant authority figures that disseminate knowledge rather

than equals or peers that merely facilitate learning (King, 2011). From this perspective, Africans believe that student-centered learning places undue emphasis on the individual and thus undermines the cultural and sociological values of the region (Zwiers, 2007). Many African nations view the purpose of education as a means of preparing students for their integration into community life, where collective values supplant individual interests. Hence, in contrast to Western nations, where individuals obtain education to attain self-sufficiency and compete in the workforce, African students acquire knowledge to contribute to home and community life (Tedla, 1996). Moreover, SSA teachers believe that they need to teach to the test and cover all of the information in the curriculum. These misconceptions prevent teachers from realizing their potential as facilitators of AL (McTighe, Seif, & Wiggins, 2004).

Educational policy. Due to their controlling influence on curriculum development, educational policies remain one of the barriers to educational reformation in SSA. These countries are currently experiencing pressure to reform educational policy that reflects the needs of industry and economy (Jaffer et al., 2007). Major political disasters, such as the Rwandan genocide of 1994, have stalled the progress of education in SSA regions (Republic of Rwanda, 2003). The Republic of Rwanda (2003) suggests that existing education policy undergo subdivision into various policies aimed at each level of education as well as different components of education, including curriculum, teacher training, language instruction, and scientific research. Subsequently, detailed strategies should reflect each sub-policy area as well as monitoring and evaluation tools (Republic of Rwanda, 2003). Alidou et al. (2006) suggest that educational policy in SSA incorporate the teaching of multiple languages. Currently, the dominant languages in African constitute the European languages of English, French, Spanish, and Portuguese. As a result, political ideologies mandate the production of educational materials solely in these languages (Alidou et al., 2006).

At the postsecondary level, current educational policy aims at restructuring the curriculum to incorporate multidisciplinary and interdisciplinary programs (Jaffer et al., 2007). These revisions address an AL approach due to the real-world emphasis on multiple fields of study. The DFID (2012) notes that the statistics showing increased enrollment are based on national averages, which fail to capture inequalities amongst various demographic sectors, such as sex, geographical region, and socioeconomic status. These funding programs require modifications to account for the disparities between males and females as well as various socioeconomic groups (DFID, 2012). In addition, African governments need to create effective institutional policies that improve national knowledge bases and innovation, thus leading to the creation of original knowledge (Teferra & Greijn, 2010). Therefore, the research on current educational policies in SSA demonstrates the need for greater cohesion among stakeholders.

Teacher training. Most of the teacher education and recruitment programs in SSA remain inadequate and fragmented. The institutions and structures that recruit teachers lack standardization and government regulation in both pre-service and in-service training (University of London, 2010). This factor can be overcome by the development of government policies and standards pertaining to the knowledge, pedagogical approaches, and credentials required for teacher training. Many teacher education programs in SSA still use the teacher-centered learning approach, which emphasizes the use of specific technical skills to deliver curricular material, rather than the reflective practitioner model, which encourages teachers develop their own teaching style (Otaala et al., 2013; Vavrus et al., 2011). In addition, teacher education programs contain significant gaps, including lack of proper training for teacher educators, minimal opportunities for reflective practice, and restricted focus on linguistic development (Jaffer et al., 2007; Vavrus et al., 2011). Otaala et al. (2013) highlighted that examinations influence pre-service educators to adopt the teacher-centered pedagogical model upon entering their practice. As a result, teachers in SSA countries, on average, possess a level of

knowledge equivalent to that of a twelve-year old (Watkins, 2013). Based on the large number of local and dominant languages in SSA, Alidou et al (2006) suggest that teachers' lack of fluency with foreign languages impedes their ability to transition from a teacher-led method of instruction to student-centered learning. In addition, limited resources and infrastructural issues lower the quality of teacher education (Alidou et al., 2006; World Bank, 2011).

In addition to teacher training, several sources have highlighted the inadequacy of teacher performance. The vast majority of teachers and university instructors lack the appropriate credentials; a report revealed that only 50% of instructors have their required PhD degree (NCHE Report, 2014). Ruto and Rajani (2014) discovered that teachers are absent from school ten percent of the time, and Bunoti (2010) found that postsecondary students complained about the quality of their instructors, especially in terms of absenteeism, unprofessional attitudes, and poor lecturing skills. At least part of this absenteeism epidemic results from poor teaching conditions, such as low pay, lack of quality training, work overload, high staff turnover, large class sizes, and lack of support (Watkins, 2013; World Bank, 2011). These factors partly account for students' poor academic performance and highlight a potential lack of motivation on the part of teachers. In addition, Both Ruto & Rajani (2014), also mention poor pedagogical approaches to learning and assessment, such as organizing students by grade and focusing on learning outputs and they conclude their discovery by strongly suggests that teachers need to adopt more student-centered learning approaches.

Lack of accountability. Most education systems in SSA countries foster, at best, weak connections between stakeholders, such as governments, parents, teachers, administrators, schools, and community organizations. Many SSA countries lack a system of accountability for teachers, resulting in unexplained teacher absences, inequitable treatment of students, physical or sexual abuse of students, and other forms of professional misconduct (EFA, 2014). In particular, parents

and administrators possess apathetic attitudes towards student outcomes (Watkins, 2013). This indifference results from a paucity of qualified education ministers and administrators, who lack the required training and knowledge necessary to monitor and evaluate educational outcomes.

In addition, the government has neglected to establish processes to assess the quality of teaching and learning (World Bank, 2011). Teacher Training Colleges (TTCs) are independently run institutions that lack accountability to local area schools and to the Ministry of Education (Vavrus et al., 2011). This lack of connection between the various components of the education system represents a major gap. While teacher training contains inadequate performance measures, the actual performance of teachers has recently begun to undergo assessment. DFID (2012) reveals the lack of attention to student learning outcomes in SSA. However, these countries have recently implemented UWEZO at Twaweza, a system of household-led, citizen-based assessments, initiated in India, that identify children's learning proficiencies. This system has determined that children in SSA are failing to obtain the literacy and numeracy skills specified in curricula (Ruto & Rajani, 2014), indicating the need for increased accountability. Based on the challenges of poor accountability, limited teacher training, educational policies, philosophical restrictions, and resource deprivations, the following section discusses the suggested changes that can overcome barriers to education in SSA.

Proposed Improvements

As shown in the preceding section, many gaps and inadequacies remain in the SSA education systems despite efforts to initiate change. This section of the chapter presents a review of the literature addressing proposed changes that can overcome weaknesses inherent in the schools and suggest ways of implementing student-centered learning approaches.

Additional funding. Although many international countries and organizations, such as the World Bank and the African Development Bank, have provided funding to education in Africa, additional efforts are required to raise the quantity and quality of education to at least a minimum standard (Watkins, 2013). The World Bank and IMF require loan repayment, which impedes the ability of these countries to fund their own education (EFA, 2014). Global educational aid reached its peak in 2010 and has since fallen sharply. Most of this drop has resulted from the world's richest countries, indicating the availability of funds to reverse this trend (EFA, 2014). To increase funding, EFA (2014) proposes the establishment of strict national and international targets for funding; for example, national governments should devote 6-7% of their funding to education, while international bodies and donors should aim for at least 20%. In addition, national governments and local businesses can increase their contribution to education (Watkins, 2013). However, King (2011) cautions against the involvement of Western nations in promoting education policies in developing and underdeveloped countries; he suggests that western-based institutions may lack cultural awareness of these nations and their interpretation of education.

Another issue involves the proper allocation of funds to target the groups, countries, and resources most in need. The EFA (2014) indicates that much of the global education budget has funded university education in developing countries such as China. However, some of this funding can be targeted towards improving educational access for disadvantaged groups, such as lower-income families, females, students in remote areas, and students with special needs (British Council, 2014; United Nations, 2011). In addition, funding institutions have traditionally allocated lower amounts to post-secondary education (Ssentamu, 2013). Materu (2007) proposes that the World Bank and other development partners direct their funding towards the improvement of quality assurance programs, including strengthening regional links, improved quality standards, international audits, and the training of qualified professionals.

In addition, funding should address students' basic needs. Mihindou (2011) maintains that students require adequate learning environments to succeed. The United Nations University (2008) has suggested a food program, where underprivileged students receive food to alleviate their hunger and enhance their learning capacity. Similar efforts may also target students' healthcare needs. In addition to providing direct funding to schools, some money should also address inadequacies with infrastructures, utilities, and communication networks. Without these changes, many students lack access to quality education and experience interruptions to their studies (British Council, 2014). Thus, some of the funding towards SSA education should improve basic living arrangements, including food, medical care, electricity, and infrastructure.

Improved teacher training and recruiting. A report by the United Nations (2011) shows that African countries require an additional 1.2 million qualified teachers to provide an acceptable quality of education. Although many teachers in SSA countries possess some training, growing numbers of teachers with limited training and government contracts have been recruited (University of London, 2010). Many individuals in SSA lack motivation to enter the teaching profession and many teachers leave their jobs due to poor working conditions, such as high student-teacher ratios, the presence of disease and poverty, and low pay (World Bank, 2011). As a result, a UNESCO Report (2009) identifies four main objectives for increasing the availability of qualified teachers: improved status and working conditions, enhanced teacher management and administration structures, the development of appropriate policies, and improved professional development. Specifically, governments need to increase teacher pay to meet basic living standards or provide them with additional benefits such as subsidized living and non-monetary incentives, such as recognition, awards, and promotion opportunities (EFA, 2014; World Bank, 2011). EFA (2014) demonstrated that a 15% rise in teacher pay increased student performance by 6-8%. These

initiatives would reduce the turnover in the education sector and attract more teachers to the profession.

SSA also needs to improve current teacher training programs and recruit additional teachers for training. King (2011) shows that such initiatives are already underway in some countries. For example, Ethiopia has recently implemented a mandatory teacher training program known as the Higher Diploma Program (HDP), which includes five main components: a teaching placement, reflective activities, active learning methodologies, continuous assessment, and a major research project (King, 2011). This program can undergo subsequent use in other African countries. Watkins (2013) suggests that SSA governments examine educational models from other countries to incorporate their strategies; however, teacher training methods and curricular designs should consider the unique environment, economy, and constraints in each SSA nation.

Furthermore, teacher education should include the ability to speak fluently in multiple languages, thereby facilitating teachers' comfort with the instructional language (Alidou et al., 2006). The teaching of reading, writing, and literacy in the mother tongue has produced positive results in Zambia, heightening students' literacy skills and academic achievement. Teacher training colleges should revise their curricula to promote teaching systems that center on the student, encourage collaboration amongst professionals, and maximize available resources (United Nations University, 2008). Kangai and Bukaliya (2011) argue that distance education for teachers can increase the number of qualified teachers and reduce problems associated with teacher shortages. Finally, the implementation of information and communication technology in classrooms requires teachers' familiarity and knowledge with such devices, networks and platforms. Hennessy et al. (2010) suggest that teacher education should address these deficits by using these devices in education programs and instructing the teachers on their effective use.

Increased professional development opportunities. In addition to focusing on pre-service training, teacher education programs in SSA should address in-service professional development. A review of the research shows that teachers should receive increased professional development opportunities through additional workshops, professional learning communities, and greater connections between teacher education programs and local area schools. One of the proposed ideas involves the development of professional forums, where teachers work collaboratively with administrators, faculty, and staff of PSE institutions. These forums aim to support faculty in evaluating and restructuring their courses and pedagogical practices (Potts & Schlichting, 2011). Kanuka (2010) studied the effectiveness of teacher development centers for PSE instructors. She identified four practices that will maximize the efficiency of centers: learning strategies, a multilayered approach, working with existing limitations, and understanding processes. The implications of this investigation suggest that professional development initiatives must carefully consider program initiatives and undergo continual evaluation (Kanuka, 2010).

Furthermore, teacher education programs in SSA must establish mentorship connections. Westbrook et al. (2013) advocates for greater support from teacher supervisors and peers. Norodine-Fataar (2011), who examined a South African university with hierarchical and peer mentoring, found that mentoring provides academic and psychosocial benefits in teacher education practices. This research suggests that other teacher training programs throughout Africa should implement supervisor and/or peer mentoring. Teachers should not only establish connections with one another but also within the community (Varvus et al., 2001; Zwiers, 2007). These seminars and conferences could teach educators to implement active learning strategies in their classroom and engage in reflective practice (Westbrook et al., 2013; Zwiers, 2007).

Reitsma and van Hamburg (2013) have suggested peer evaluation to ensure accountability amongst teachers. This form of peer assessment involves rigorous evaluation based upon strict

criteria. Although the panel members that participated in the study did not receive compensation, both the evaluators and the teachers reported several positive benefits, including increased personal development, additional opportunities for professional development, and improved teaching practice (Reitsma & van Hamburg, 2013). This strategy represents a cost-effective way of improving motivation and professional development. In order to ensure their effectiveness, these professional development opportunities require alignment with the promoted pedagogy, curriculum, and forms of assessment (Westbrook et al., 2013).

Several authors have suggested digital or online professional development courses, which can undergo delivery through a variety of mediums and methods. The use of technology in teacher education increases participation, as teachers can schedule their learning around their lives while minimizing commuting time (Kanuka & Nocente, 2002). These authors found that Internet-based courses provide teachers with updated information while also creating dialogue amongst teachers. Diamond and Gonzalez (2014) proposed a professional development program known as the digital badge system. In this program, teachers can increase their credentials by taking various subject-specific courses. While some courses are independent, others operate on a prerequisite system. Each course provides teachers with classroom materials to incorporate into their practice. This unique approach addresses the criticism that professional development courses provide mainly theoretical material that lacks direct relevance to practice (Diamond & Gonzalez, 2014). Kanuka and Braga (2011) suggested that online and in-person professional development activities incorporate dialogue amongst various teachers. This idea stimulates collaboration amongst teachers, which enhances the knowledge of all teachers attending these sessions and increases the motivation of teachers to attend professional development sessions.

Revised curriculum. Jaffer et al. (2007) argue that SSA faces challenges in curriculum design at all levels of education. The content of the curriculum, instruction, and assessment methods as well as educational methodologies should change to incorporate more student-centered approaches (Vavrus et al., 2011). Garry and Phillips (2013) suggested the use of the backward curricular design, which establishes objectives before determining pedagogical methods and assessment measures. Such learning objectives should form the basis of all educational initiatives, including curriculum design, lesson delivery, and assessment (DFID, 2012). In addition, Teferra and Greijn (2010) suggest the development of curricula that demonstrates a clear integration and overlap between disciplines and subject areas to portray a more accurate reflection of real life.

Assessment methods should align with curricular material (EFA, 2014). Specifically, these approaches should combine formative and summative measures as well as demonstrate consistent standards (Vavrus et al., 2011). In addition, teachers should incorporate a wide variety of assessment approaches that extend beyond the typical teacher-student evaluations. Campbell (2010) suggests student self and peer assessments to supplement traditional teacher-based assessments. These methods align with the essential skills of student-centered learning, including critical thinking, problem solving, and cooperative learning as well as complement certain pedagogical tools, such as interactive learning (Campbell, 2010). Zwiers (2007) maintained that curricula should honor community-centered cultural values in both instruction and assessment. He suggested ways in which the revised curriculum should incorporate active learning while addressing the following values: active participation in community issues, studying the history and culture of the community, building communication skills, and establishing positive personal qualities. Another innovative approach involves multi-grade classrooms that allow children of various age groups to interact and learn together (Ruto & Rajani, 2014). This arrangement uses minimal resources and facilitates cooperative learning with different curricular objectives.

At the postsecondary level, the government should develop a few strategic disciplines based upon a national knowledge base rather than maintaining fragmented programs (Teferra & Greijn, 2010). The curriculum should also incorporate a shift from a theoretical to a practical orientation in order to provide graduating students with employable skills (Bunoti, 2010). Specifically, curricula should mandate the teaching of skills such as teamwork, problem solving, interpersonal skills, flexibility, and leadership (British Council, 2014). Postsecondary programs should include practical components that provide students with the opportunity to connect the theoretical knowledge gained in the classroom to practice within their desired field or career.

The recent explosion of information technology enables enhanced communication and simultaneous access to data. As a result, students need to use this technology for increasing their employment prospects (Teferra & Greijn, 2010). Curricula at all levels should implement and address information technology as teaching and learning tools. Allen-Ile & Scholtz (2011) suggest the use of standardized assessment approaches in PSE throughout Africa. These authors propose that such standards should involve national or international assessment methods as well as ways of assessing educational outcomes and teacher performance (Allen-Ile & Scholtz, 2011). However, the implementation of such suggestions requires the coordinated cooperation among all stakeholders in the various SSA education systems.

Teaching methods. In order to transition to a student-oriented method of instruction, teachers need to develop new pedagogical approaches. The literature acknowledges that students possess different learning styles; accordingly, teachers need to understand and address this variety of ways in which students acquire and process information (King, 2011). The use of blended approaches, which combine personalized learning with direct instruction, can address this gap by envisioning teachers as facilitating student learning rather than providing direct instruction (Garry & Phillips, 2013). Brooks and Young (2011) suggest that teachers should empower and motivate

students by providing them with greater choice and control over their learning content and materials. Since this concept, based on the self-determination theory, requires minimal resources, teachers in underdeveloped countries can implement this approach.

However, King (2011) cautions against teachers' use of cultural assumptions in educational delivery. His study demonstrates that students' cultural background greatly influences their learning style, implying the necessary role of teachers in recognizing their own cultural background and that of students (King, 2011). To address this potential obstacle, teachers should instruct students about fostering understanding and respect for different cultures. By increasing tolerance, teachers and students will improve their capacity for knowledge sharing and cooperative learning (Evans, 2010). Since SSA includes individuals with a wide array of cultural backgrounds (Alidou et al., 2006), the dissemination of greater cultural knowledge can increase learning outcomes. Some strategies for increasing the acceptance of cultural diversity include reducing prejudice and increasing tolerance, recognizing the existence of white privilege, searching for cultural roots, and celebrating the existence of multiculturalism (Beyer, 2010). Lastly, the United Nations University Report (2008) suggests that additional educational research will improve several areas of education, most notably teacher training and teaching methods.

Despite resource limitations, Zwiers (2007) suggests that teachers can increase the quality of student learning by changing their questioning style. He classifies questions into three categories: surface-level, or fact-based questions; under-the-surface questions, which require long answers; and finally, life application questions, which apply to students' lives. Zwiers maintains that teachers should ask the second and third type of questions to stimulate deeper-level thinking about the real world. In addition, teachers can use problem-solving methods that link theory and practice by addressing real-world problems of the country or region, such as managing diseases, reducing poverty, limiting conflict, and dealing with natural disasters (United Nations University, 2008).

Other AL opportunities include collaborative learning groups, such as Think-Pair-Share and Jigsaw Groups, and role-playing activities, where students assume the role of animals. Teachers can also increase kinesthetic connections with students by using physical gestures and encouraging movement (Zwiers, 2007) or implement outdoor activities, which improve motivation, learning, and health (Hein, 1999; Szczepanski, 2006). The EFA (2014) suggested teaching children practical lessons that involve adopting recycling systems, alternative energy sources, planting and gardening, and waste management. Another idea proposed teaching high school students debate and conflict mediation skills to help refugees (EFA, 2014). These actions not only address important curricular areas but also provide realistic, AL experiences that will ultimately help the workforce and the nation as a whole.

Implementation of technology. SSA nations can improve education by implementing modern technology, which can overcome deficits such as poor teaching. Specifically, the use of technology can improve teachers' management of large classes (Jaffer et al., 2007) and facilitate distance learning, which increases access to education (Ssentamu, 2013). However, the limited financial and human resources plaguing SSA countries present major barriers to the incorporation of technology. Most SSA countries still lag behind the rest of the world in their knowledge and utilization of modern technology. However, some authors have suggested that SSA can implement educational technology at a reasonably low cost. EFA (2014) proposes interactive radio to provide distance education, hence addressing the needs of poor, special needs, and rural-based students. Despite infrastructural challenges, SSA countries boast effective mobile phone networks, which can be adapted for educational purposes (EFA, 2014; Traxler & Deardon, 2005).

Garry and Phillips (2013) suggest that digital learning can enable the reallocation of expenditures from paper products to the purchase of devices such as computers and tablets. Conejar and Kim (2014) propose the use of grants and subsidies from national and international

governments to fund technology in the classrooms. Moreover, Traxler and Deardon (2005) assert that SMS technology, which can be accessed via mobile phones, tablets, and computers, provide teachers and students with multiple access options at a fairly low cost. SMS technology represents an attractive fit in SSA countries due to its low cost, communication efficiency, extensive coverage, ease of use, and flexibility (Traxler & Deardon, 2005). In addition, the use of both SMS and digital technology can overcome access barriers to students living in rural remote areas (United Nations, 2011). Ssentamu (2013) discusses the use of Internet Laboratories for students of all faculties in PSE institutions. However, Bunoti (2010) reports that current technological facilities are inadequate for the number of students that require access, thus indicating the need for alternative approaches.

Greater accountability and integration among stakeholders. One of the greatest challenges in improving educational policies entails a lack of coordination amongst stakeholders (UNESCO, 2009). Improvements to SSA education systems require sustained efforts to establish linkages between various stakeholders in the system. For instance, policies, plans and budgets should be linked appropriately with one another. In addition, available resources must be matched with resource requirements (Republic of Rwanda, 2003). Some African governments, such as those in Rwanda, assume a decentralized approach to education, where the national government establishes, monitors, and evaluates policies, while local governments implement the policy, perform educational activities, and administer schools (Republic of Rwanda, 2003). This approach requires precise coordination between both levels of government to maximize the efficiency of the system and limit resource wastage.

SSA nations can improve their education systems through increased attention to original research and innovation. Teferra and Greijn (2010) maintain that due to their position as heavy consumers and minimal producers, African countries remain in a position of global subordination. In order to improve the strength of their economy, and, the education system that ultimately drives

that economy, African countries need to develop, organize, and disseminate their own knowledge, information, and technology (Teferra & Greijn, 2010). Specifically, the United Nations University (2008) proposed increased research that targets efficient policies in the areas of education, innovation, human resources, financing, and technology.

Watkins (2013) argues that political leadership represents the first step in SSA educational reform. This system of accountability allows governments to assess and improve the value of their expenditures as well as to deploy a systematic analysis, including setting objectives, implementing policies, monitoring progress, assessing results, and proposing improvements (DFID, 2012). SSA has only recently begun to implement quality assurance in post-secondary education; however, these efforts have focused on regulating the educational sector rather than accountability and quality improvement. Future initiatives should focus on the compliance of individual institutions as well as the establishment of links between quality assurance, objectives, processes, outputs, and funding allocation (Materu, 2007). Other potential efforts involve advocacy and lobbying as well as working with teacher unions (EFA, 2014).

Furthermore, the use of information technology will help to bridge the gap between the stakeholders. Student-centered learning implemented through digital media enhances the connection among teachers, parents, government, and community organizations (AIR, 2013). Vavrus et al. (2011) suggest the development of an independent body to write school curricula and syllabi. This body can comprise a combination of governmental and non-governmental members, such as retired teachers, teacher educators, school heads, and inspectors. This hybrid composition would facilitate links between teacher education programs and other stakeholders while still ensuring accountability. Similarly, Alidou et al. (2006) suggested a greater integration between both government-based and non-governmental bodies that comprise stakeholders in education.

In order to implement mobile and computing technologies, several stakeholders, policymakers, technology developers, educators, and teachers or instructors must contribute in order to bridge the existing gap (Traxler & Deardon, 2005). DFID (2012) recommends the involvement of communities in monitoring and promoting education to provide accountability and diverse perspectives in educational debate. Moreover, the United Nations (2011) identified private sector companies as key stakeholders in education, as these businesses possess an understanding of emerging sectors, labor shortages, and occupational requirements (United Nations, 2011). The private sector can impart necessary information to the government and ministries of education, who can incorporate this knowledge in designing the curriculum. While the efforts of the national governments represent the first step in improving accountability, all other stakeholders must participate accordingly. Along with improved accountability, other potential changes to the SSA education system can include the implementation of information and communication technology, better teaching methods, improved recruiting and teacher training, greater professional development opportunities, and more funding.

Recapitulation

This literature review highlighted the inadequacies that exist in the SSA PSE education systems. These challenges impede the ability of graduates to enter the labor market in the modern creative economy and create skills gaps in many sectors and professions. These failures result, at least in part, from the continued use of outmoded teacher-centered methods for delivering instruction. In order to adequately prepare students for the workforce or entrepreneurial ventures, stakeholders need to consider the use of student-centered methods, such as AL and IAE, which have shown success in developed and developing countries. While the literature describes some instances of student-centered learning at the postsecondary level in SSA, these instances consist of isolated examples that have been instructor-initiated rather than implemented nationwide.

Furthermore, a paucity of literature exists on student-centered learning in Ugandan PSE, and these examples are presented from the perspective of researchers rather than instructors. Thus, few studies address student-centered learning through the pedagogical approaches of SSA PSE and even fewer studies document the voices of SSA postsecondary instructors sharing the perceptions of their experiences about postsecondary school pedagogical approaches implemented in SSA universities.

Due to the significant barriers hindering successful PSE in Uganda, the creation and implementation of student-centered teaching methods require collaboration amongst all stakeholders, including government, policymakers, educators, deans, instructors, employers, and students. Through collaborative efforts, these stakeholders can create knowledge together with an understanding of working life and reformulate postsecondary school pedagogical methods. Specifically, universities can forge tighter connections with community and industry partners through academic projects, competitions, and placements that provide AL opportunities to learn both generic and professional competencies as well as to build networks and pathways for employment after graduation. Although researchers emphasize the barriers that impede the implementation of student-centered pedagogical approaches in SSA, very few successful initiatives have occurred, especially in terms of interpreting and responding pedagogically to the requisite of preparing students and graduates for a world of employment characterized by greater uncertainty, speed, risk, complexity, and interdisciplinary working.

Based on existing SSA scholarship, this study surveys uncharted territory, especially in the case of Uganda. To the best of the author's knowledge, no existing studies have explored instructors' perceptions of their experiences with student-centered PSE pedagogical approaches. In addition, the review of literature has confirmed that SSA experiences a dearth of scholarship offering a comprehensive understanding about the desires of postsecondary school instructors to continue exploring student-centered learning as postsecondary school pedagogical approaches and

practices. Consequently, this study is an effort to depict pedagogy from the standpoint of postsecondary instructors. In addition to ascertaining instructors' perspectives on AL and IAE, this study sought to provoke a conversation among PSE stakeholders about improving postsecondary school pedagogical approaches that may trigger a more enabling education system supporting meaningful learning. The following chapter outlines the methodology, which includes the general paradigm of qualitative research, the interpretivist approach, and the case study method. In addition, data collection, data analysis, and other considerations are also described.

CHAPTER THREE: RESEARCH METHODOLOGY

The purpose of this study aimed to gain further understanding about PSE instructors' perceptions of their pedagogical approaches, including the implementation of student-centered instructional methodologies such as AL and IAE for postsecondary schools in Uganda. This chapter includes a detailed description of the research methodology that was employed in this study and is organized into various sections that provide a framework within which to describe the research plan. A preliminary pilot study is described before a thorough delineation of the research plan. Subsequently, the chapter examines trustworthiness, ethical issues, and limitations/delimitations. The chapter ends with a summary to demonstrate the connections among the main sections presented as part of the research methodology and to provide a preview of upcoming chapters.

Research Methodology

This part of the chapter discusses the overall paradigm of qualitative research followed by a discussion of interpretivism.

Qualitative Research

Qualitative research has been defined in various ways. Strauss and Corbin (1998) identified qualitative research as

Any type of research that produces findings not arrived at by statistical procedures or other means of quantification. It [qualitative research] can refer to research about persons' lives, lived experiences, behaviors, emotions, perceptions and feelings as well as about organizational functioning, social movements, and cultural phenomena (p. 10-11).

These authors elaborated that researchers ideally employ qualitative research when the methods (a) complement the preferences and personal experiences of the researcher; (b) align with the nature of the research problem; and (c) explore previously unexamined areas. Miles and Huberman (1994) expanded upon this definition to indicate that qualitative research (a) confirms previous research on

a topic, (b) provides more in-depth detail about a previously known aspect; (c) gains a new perspective or a new way of viewing an idea; and (d) expands the scope of an existing study.

Based on this collection of reasons, qualitative methods were deemed appropriate for this study. In particular, this study explored the perceptions of postsecondary school instructors to gain understanding of a “naturally occurring phenomena,” which involved student-centered learning methods “in their naturally occurring states” (Patton, 1990, p. 73) and the instructors’ experiences with such methods. In an effort to investigate postsecondary instructors’ pedagogical experiences, this study sought an improved understanding of the implementation of student-centered learning approaches, especially AL and IAE, in Ugandan postsecondary pedagogy. Marshall and Rossman (1999) examined the wide variety of qualitative research genres, each of which contains its own assumptions, methods, procedures, and considerations. These authors describe qualitative research as naturalistic, interactive, humanistic, emergent, and interpretive. Although qualitative research contains an emergent and flexible design, this study required at least a basic research plan to guide its exploration. Accordingly, the following section contains a detailed description of this plan along with an overview of interpretivism and the case study method.

Interpretivism

The research methodology of interpretivism naturally aligns with qualitative methods. In fact, Miles and Huberman (1994) classify interpretivism, along with social anthropology and collaborative social research, as one of three qualitative approaches for data analysis. Interpretivism, in its simplest form, constitutes an ideal means of exploring individuals’ interpretations of their experiences when faced with certain situations or conditions (Woods & Trexler, 2001). Within the context of social science research, interpretivism attempts to understand the meaning of what Schwandt (2001) refers to as “social action” (p. 133). Social action, in contrast to natural scientific phenomena, involves subjective experience rather than objective causes.

Interpretive research considers the theoretical position of the researcher and his/her role in constructing the analysis (St. George, 2010). This statement implies that along with the subject of the research, the interpretivist researcher plays a role in creating the meanings involved in the study.

To gather qualitative data in accordance with an interpretivist paradigm, two sets of semi-structured, individual interviews with participants were conducted: one main interview and one follow up, which purported to fill the gaps left from the original sets of interviews. In addition, both interviews underwent triangulation with the addition of classroom observations, discussed in more detail in later parts of this chapter. The process of triangulation facilitated the removal of any subjective biases or interpretations on the part of the researcher. These observations, in conjunction with both sets of interviews, aimed to explore the use of student-centered learning methods, especially AL and IAE, at the postsecondary level in SSA education.

Furthermore, the qualitative nature of the study allowed for a discussion of teaching and pedagogical experiences to undergo analysis according to the themes and patterns that emerge from the interviews. Themes constitute important features that distinguish a case (Gall, Borg, & Gall, 1996), while patterns refer to the observed variations in the phenomena that systematically relate to each other (Yin, 1993). The division of the results into two chapters, Chapters Four and Five, reflects the prevalence of both themes and patterns, subsequently referred to as categories, in this qualitative study. While Chapter Four explores the emergence of themes from each case, Chapter Five provides a cross-case analysis that identifies patterns or categories across the cases. Multiple methods of data collection, analyses, or theories serve as a way to ensure the validity of the data and establish trustworthiness. The process of verifying information from various data, termed triangulation (Gall, Borg, & Gall, 1996), undergoes further discussion later in this chapter.

Case Study Method

The research method that framed this study was based on the case study method. According to Creswell (2007), the case study method “involves the study of an issue explored through one or more cases within a bounded system” (p. 73). Case studies can explore a single bounded system or multiple bounded systems, the latter of which comprises the multiple case study method (Creswell, 2007). The multiple case study method corresponded appropriately with both the qualitative research paradigm and the interpretivist approach. Educational researchers commonly use case studies in order to clarify their understanding of teachers’ actions towards students (Stake, 1995). Case study methods generally involve multiple sources of information (Creswell, 2007), which, in the case of this study, involves interviews and observation. Case studies align with interpretivism due to the focus on interpreting participants’ experiences in relation to a certain theme, which, in this study, constituted PSE teaching methods in SSA. Since the study sought to ascertain diverse perspectives on pedagogical methods in SSA university instruction, the study used the case study method, which included a sample of instructors teaching at Makerere University in Uganda. However, due to the extensive time commitment required for the in-depth descriptions contained in the case study method (Stake, 1995), the sample selection was limited to a total of six participants.

Research Plan

The following sections consist of an outline used for this study. After discussing the preliminary pilot study, this part continues with descriptions of sampling procedures, data collection, and data analysis as well as steps to establish the trustworthiness of the results.

Pilot Study

Prior to the actual investigation, a pilot study was conducted to ensure the interview guide attached in Appendix D could gather data that addressed the research questions. This pilot study involved three members at the University of Alberta, all of whom have had experience teaching in SSA postsecondary institutions. The interviews lasted approximately one hour with each pilot study

participant. The collection, transcription, and analysis of data were performed according to the data collection and data analysis procedures described in subsequent sections of this chapter. The results of this process yielded a refined version of the interview guide that was used with the participants in this study. In addition, the experience of conducting the pilot study attested to the necessity of adding the classroom observation and follow-up interview stages, thus leading to a redesign of the research plan and solidifying the need for triangulation. Finally, the pilot study verified the list of themes found later in this chapter and providing the basis for the analyses in Chapters 4 and 5.

Participants

This study recruited postsecondary instructors that taught at Makerere University's College of Education. Specifically, six active university instructors who, at the time of the study, taught at Makerere University's College of Education and expressed their interest to participate in a study about Ugandan postsecondary instructors' perceptions of their pedagogical approaches, were selected, contacted, and interviewed, as described further in the sampling procedures. The final six participants were all male, with their ages ranging from 45-56. Three of the participants were associate professors, while the other three held the rank of full professor. Although, at the time of the study, Makerere's College of Education had a total of three female instructors, none of these three women expressed interest in the study topic, hence resulting in a pool of all male participants.

Makerere University comprises the oldest and largest PSE institution in East Africa, commanding an enormous community of instructors and educational managers. For many years, Makerere has represented a destination for many students and scholars from SSA and the rest of Africa (Makerere University, 2016). Makerere University was chosen for the site of the study because of its rich history and potential ability to typify the learning processes and pedagogical methods of most SSA PSE institutions. Since Makerere University comprises the largest university in Uganda, this school not only serves students from Uganda but also those from most SSA

countries; accordingly, this location provided diverse perspectives from the participants, thus enabling a broad array of information about pedagogical methods. In addition, the perception of Makerere as an elitist university makes it an ideal institution to study due to the traditional association of elite universities with lecture-centered methods typical of most SSA universities (European Commission, 2014).

The study participants have taught education students and pre-service teachers, transmitting their pedagogical practices through lecturing and role modeling. Since pre-service teachers learn teaching approaches from their education instructors, these student teachers subsequently teach to students at all levels of education, including primary, secondary, and tertiary. Thus, education instructors at Makerere University's College of Education represent the primary source of most teaching in Uganda. By potentially changing the practices of education instructors, the results of this research can ideally make progress towards changing the practices of their future teachers from teacher-centered to student-centered methodologies, using AL and IAE teaching strategies.

Sampling Procedures

As previously described in the participant section, this study used purposive sampling to recruit individuals who have experienced the research phenomenon under investigation. Purposive sampling aims to conduct an in-depth exploration of an individual's experience rather than generalizing the experiences of select individuals to a larger population (Lincoln & Guba, 1985). In this study, which examined instructors' experience with various pedagogical methods, postsecondary instructors were recruited from Makerere University's College of Education. Specifically, the participants targeted for the study supported or demonstrated enthusiasm towards student-centered pedagogical methods such as AL and IAE, thereby allowing the investigation to focus exclusively on participants that have direct experience with the topic under study or had expressed their interest to participate in a study aiming to gain further understanding about Ugandan

postsecondary instructors' perceptions of their pedagogical approaches, including the implementation of student-centered instructional methodologies, such as AL and IAE for postsecondary schools in Uganda. As per the multiple case study method, which aims to ascertain a diverse array of perspectives on a single issue (Stake, 1995), a decision was made to choose instructors that hold unique viewpoints in terms of their experiences with and understandings of student-centered methods such as AL and IAE.

Accordingly, the study began with a sample of six instructors from Makerere University's College of Education as the initial set of research participants. In the event that contacted individuals lacked the willingness to participate in the study, other potential participants from the university were then contacted from a large pool of potential participants. To ensure sufficient participants, two rounds of notifications were conducted. These notifications included requests to participate with the aim of targeting as many potential participants as possible for inclusion in the study. The final set of instructors used for this

Participant Selection

An invitation to participate in the study was extended to all postsecondary instructors from Makerere University's College of Education who supported or demonstrated enthusiasm towards student-centered pedagogical methods such as AL and IAE. This initial letter allowed the investigation to focus exclusively on participants that have had direct experience with the topic under study or had expressed their interest to participate in a study aiming to gain further understanding about Ugandan postsecondary instructors' perceptions of their pedagogical approaches, including the implementation of student-centered instructional methodologies, such as AL and IAE for postsecondary schools in Uganda. The participation package circulated to participants included the Letter of Initial Contact (Appendix A), which was accompanied by both the Informed Consent Form (Appendix B) and Confirmation to Participate in the Study Form

(Appendix C). This latter document required participants to sign the form and email it back in order to indicate their willingness to participate in the study. Additionally, the letter stated that a follow-up phone call would be provided to the participants who failed to respond to the package within three weeks. Interested participants were requested to make contact via the contact information listed on the consent form developed for distribution to all potential participants.

The initial letter resulted in a response from 28 of the professors, who expressed their willingness to participate in the study. Due to the limited number of participants required in a case study (Stake, 1995), the purposive sampling technique was used to identify participants that were in a position to provide diverse perspectives on pedagogical methods in SSA university instruction. This technique focused on selecting the participants that expressed the greatest amount of interest in the study as well as obtaining a representative sample of instructors showing a variety of viewpoints on student-centered learning. However, due to the extensive time commitment required for the in-depth descriptions contained in the case study method (Stake, 1995), the sample selection was limited to a total of six participants.

Once individuals were selected for inclusion in this study, consideration was provided to participant accessibility. In consultation with each participant, an initial meeting place, time, and date were determined, taking into consideration the convenience of both researcher and participant. After the meeting place was determined, space was reserved at Makerere University's College of Education depending on availability and participant preference as well as consideration for minimizing distractions. Once participants confirmed their agreement to participate and administrative issues were resolved, individual interviews were conducted.

Establishing Contact

To ensure that interviews proceeded smoothly, a meeting location that provided adequate space and necessary equipment, such as tape recorder, batteries, and writing pad, was secured and

verified. On the day before the interviews, confirmation of the meeting time and place with the interviewee was established. The establishment of contact began with the initial interview. Specifically, the interviews began with an introduction of the participant, followed by a review of the study's purpose and consent form to verify and confirm their willingness to participate. The initial interview proceeded with the collection of demographic information.

Data Collection

Marshall and Rossman (1999) classify qualitative data collection methods into four types: (a) participation in the setting; (b) direct observation; (c) in-depth interviews; and (d) document analysis. This study incorporated three of these methods by utilizing in-depth, individual semi-structured interviews with six instructors, direct observations of the instructors' lessons, and participation through continuous involvement in the field of study. Coffey and Atkinson (1996) suggested that researchers conduct data collection and analysis simultaneously in qualitative research to allow for the necessary flexibility. Based on this suggestion, this study conducted data collection and analysis in a cyclical process until concepts and themes became detailed and redundant, while new information ceased to emerge (Miles & Huberman, 1994). At this point, data saturation, which determines the point at which to stop interviewing participants, began occurring (Fusch & Ness, 2015; Mason, 2010; Strauss & Corbin, 1998). Once themes started to reappear in participant responses to the questions, the interviews were concluded.

Specifically, the data collection procedure in this study involved three steps: in-depth individual interviews, classroom observations, and follow-up interviews.

In-Depth Individual Interviews

In order to gain a comprehensive understanding about the participants' perspectives of their postsecondary pedagogical experiences, individual interviews were conducted, each lasting approximately one hour. These interviews were semi-structured in nature and audio taped. Both

general and specific questions were asked in order to capture the progression of participants' postsecondary pedagogical experiences while teaching at university; these questions were summarized in the interview guide, shown in Appendix D. Although the questions followed a narrative form, follow-up questions were asked when deemed necessary to prompt respondents to clarify or expand upon their experiences. In selecting the data for inclusion in the analysis, similarities and differences were highlighted based on the coding of the themes.

Each interviewee's experience was captured in the following order: a) the reasons that these participants decided to seek a teaching opportunity with the university; b) the characterization of participants' experiences in teaching at university; c) the participants' perceived experiences of the pedagogical approaches implemented at their university; d) the participants' perceived experiences of the degree to which student-centered learning is implemented and supported at the university level; e) participants' knowledge of IAE; and f) the participants' perception of the way in which teaching and learning in Ugandan PSE can undergo improvement. Lawrence-Lightfoot and Davis (1997) state that in order for the qualitative researcher to confirm the comprehensiveness, importance, richness, and relevance of the interview, they must perform certain checks and guidelines to ensure that this view concurs with interpretivism. Therefore, in this study, it was ensured that the following questions were answered during the semi-structured interview:

- Has contextual information been included as a clarifying introduction to and an edifying backdrop?
- Has the participant's voice been sufficiently revealed and modulated so that it informs but not distorts the interpretation?
- Have relationships been respected and faith kept with the actors throughout the entire process?

- Have the identified emergent themes resonated throughout the language and culture of the actors and did they adequately scaffold the interpretation? (Lawrence-Lightfoot & Davis, 1997, p. 265)

Relevant themes and patterns. Prior to conducting the interviews, a list of potential themes and keywords were made in a reflective journal, discussed in the subsequent section. These themes contributed towards fulfilling the research purpose and answering the research questions developed at the outset of the study. During the interviews, any mentioning of these themes from the respondents as well as any patterns and trends that emerged from the interviews were noted in the journal. The data transcription and analysis process involved intentional scanning for these words, phrases, and ideas. Some of these words, phrases, and themes that were pertinent to this research are listed below. However, this research also allowed the possibility for themes to emerge inductively as well as deductively, which meant that this list was, by no means, comprehensive.

- | | | |
|------------------------|------------------------|-----------------------|
| • Student-centered | • Teacher-centered | • Pedagogy |
| • Teaching methods | • Authentic learning | • Traditional |
| • Real-life/real world | • Realistic | • Meaningful |
| • Indigenous education | • Culture | • Business, industry |
| • Entrepreneurship | • Innovation | • Community |
| • Problem solving | • Methodology/approach | • Entrepreneur |
| • Tangible product | • Sub-Saharan Africa | • Employer |
| • Creative economy | • Collaboration | • Audience |
| • Practical | • Assessment | • Communication |
| • Stakeholder | • Education | • Training |
| • Instructor | • Economy | • Student |
| • Orientation | • Resources | • Government |
| • Postsecondary | • Curriculum | • Infrastructure |
| • Policy | • Technology | • Teacher |
| • Philosophy | • Funding | • Modern/Contemporary |
| • Perception | • Labour Market | • Knowledge |
| • Experience | • Product/Produce | • Work |
| • Challenges | • Barriers | • Interaction |

Reflective Journal

At the beginning of the data collection process, a reflective journal was introduced and used throughout the study. The researcher used the journal on a daily basis for a wide variety of purposes. The journal recorded the activities, ideas, decisions, and reflections that occurred during the research process as well as served as a calendar of events that captured interview appointments and deadlines while identifying the stages of research progress. Additionally, the journal represented a personal diary of notes about perceptions, feelings, and interactions with participants, thus separating participants' perspectives from the thoughts and feelings of the researcher in order to omit any researcher bias in the analysis. During the classroom observations, the journal was used to record all aspects of the observations, thus serving as raw material for the observation sheets found in Appendix E. Finally, and most importantly, the journal recorded gaps in the interviews or questions that were required for the follow-up interviews. Much of the information in the notes helped to inform the case studies, cross-case comparisons, and discussion in Chapters 4, 5, and 6 of this study. In Chapter 4, the classroom observations that appear at the conclusion of each case were created from material entered into the reflective journal while classes were unfolding; this material subsequently contributed to the formation of the cross-case comparison and discussion.

Classroom Observations

After the initial in-depth interviews, multiple classroom observations were conducted for each instructor and this process was guided by a Classroom Observation Guide - Information about the observation to students (Appendix E). The purpose of the observations sought to create a relatively objective and rich description of the participants' teaching methods and cases (Stake, 1995) as well as offering a means of triangulating the data (Lincoln & Guba, 1985). With the exception of one participant, who did not have any classes scheduled during the observation period, each participant's classroom was visited at least twice during instruction periods. A relevant

observation session constituted a time where the instructor led classroom activities for the majority of the hour, thus discounting classes during which tests or examinations occurred. If uncertainties or ambiguities remained after the first two observation periods, a third observation session was arranged. Each observation period lasted one hour. During this time, notes were made in the reflective journal, which included information about the instructors' plans, pedagogy, instructional methods, learning activities, and assessments.

After the observational periods, notes from the initial interviews were compared with classroom observations in order to examine the extent to which the participants' interview responses corresponded with the observations. Subsequently, questions were formulated for each individual case; these questions centered on the differences between the way in which the participant reported his/her teaching methods and the observations of such methods. Research shows that contradictions exist between an instructor's perception of his/her methods and the reality of those pedagogies (Stake, 1995). Accordingly, such questions sought to explore the thought processes behind these differing perspectives and to identify any contradictions.

Follow-up Interviews

After at least two hour-long instructional periods were observed, follow-up interviews were conducted with each of the six participants. Notes that were formulated from the observations and initial interviews were used to construct a list of questions for each instructor. The questions sought to explore any contradictions between each participant's reported teaching methods and any conflicting observations; hence, a different set of questions were posed for each participant. In addition, the follow-up interviews provided a means of gaining additional information about gaps that appeared in the original interview. As in the case of the initial interviews, the follow-up interviews were also semi-structured, as they allowed each participant to expand on his/her experiences or thoughts as per the methodology of interpretivism while providing ample

opportunity to prompt the participant for further clarification or elaboration (Woods & Trexler, 2001). During these interviews, the transcripts were recorded and observational notes were taken in the reflective journal for subsequent data analysis.

The final products of the data collection involved written and oral transcripts from both interviews as well as extensive notes from the observation periods. Following data collection transcription was performed and the recorded audiotapes were transferred from spoken to written words in order to enable the analysis process. The following sections delineate the data analysis procedures that were implemented in this study.

Data Analysis

In qualitative research, data analysis has a twofold purpose: (a) to understand the participants' perspectives and (b) to answer the research question. Marshall and Rossman (1999) defined qualitative analysis in terms of organizing and attributing meaning to the data. To accomplish these tasks, this study followed the three-phase procedure described by Miles and Huberman (1994): (a) data reduction; (b) data display; and (c) conclusion drawing and verification.

Data Reduction

Data reduction comprises the first phase of qualitative data analysis (Miles & Huberman, 1994). This step involves the process of selecting, simplifying, and extracting themes and patterns from written field notes, transcripts, and other available resources. To accomplish this task, interview transcripts were read and re-read to search for recurring themes within each case as well as patterns that emerged across the different cases. The identification of themes for each case corresponded with the concept of codes, which constitute categories under which similar themes fell and facilitated a cross-case analysis (Creswell, 2007; Yin, 2002). Based on list of keywords provided under the relevant list of themes and patterns in the data collection section, common themes were grouped from these categories. Specifically, code names were assigned to all identified

themes and then organized into categories of related topics, patterns, concepts, and ideas that emerged from the participants' perspectives.

Data Display

As the second phase of data analysis, data displays constitute tools for presenting the results of data reduction (Miles & Huberman, 1994). Displays incorporate information into an accessible summary to facilitate the subsequent step of drawing conclusions. The main display techniques include matrices and networks. Matrices constitute rows and columns of data that have been extracted from coded transcripts. These matrices are organized according to themes for each individual case, complete with supporting quotations that provide evidence of such themes.

While matrices facilitate the identification of themes within each case, networks allow for the discovery of patterns across cases. Networks summarize information into charts by providing a picture of reduced data within the context of participants' perspectives. According to Miles and Huberman (1994), form follows function, which implies that particular techniques depend upon the results of the research questions and emergent concepts. The final decision regarding the technique(s) employed in this study was made following the results of data reduction. Once the appropriate technique was identified, data displays were created for each individual as well as across each case to demonstrate findings from all available sources of information.

Conclusion Drawing and Verification

The final phase of data analysis, according to Miles and Huberman (1994), consists of drawing initial conclusions based on cross-case data displays and then subjecting these initial conclusions to verification procedures. These procedures aim to verify the appropriateness of findings before such findings are labeled as conclusive results. Specifically, the process of verification includes returning to certain passages to reexamine them and triangulating the passages with the results of the observations (Stake, 1995). Creswell (2007) discusses the necessity of using

both direct interpretation, which involves making meaning from a single example, and naturalistic generalizations, which compare each case to the other five. This step helps to guide the cross-case analysis performed in Chapter Five. In qualitative research, findings are verified and deemed appropriate by evaluating their trustworthiness, which is discussed in the following section.

Trustworthiness

Qualitative research is evaluated by its trustworthiness. This term was originally coined by Guba (1981) and subsequently used by Lincoln and Guba (1985) to represent several constructs including (a) credibility; (b) transferability; (c) dependability; and (d) confirmability. A description of each of these concepts is provided in the following paragraphs.

Credibility

Lincoln and Guba (1985) as well as Miles and Huberman (1994) suggest that research findings should be scrutinized according to three basic questions: (a) Do the conclusions make sense? (b) Do the conclusions adequately describe research participants' perspectives? and (c) Do conclusions authentically represent the phenomena under study? In this current study, triangulation and other checks were used to enhance credibility. According to Lincoln and Guba (1985), triangulation involves the process of corroborating findings with alternative sources of data. In this investigation, the case study method ensured triangulation by following the interviews with classroom observations and subsequently conducting a second interview with the participants. Thus, the initial interview results were validated and compared with at least two sets of subsequent data. Any data that showed a discrepancy between the interviews and classroom observations was mentioned in the results.

Transferability

In qualitative research, transferability seeks to determine the relationship between the findings and other contexts (Lincoln & Guba, 1985; Miles & Huberman, 1994). In this study,

transferability was enhanced through a thick and rich description of the contexts, perspectives, and findings that surround participants' experiences. Through the provision of adequate detail to create a well-defined context, readers have the opportunity to decide whether or not the findings can transfer to other circumstances. A detailed field log of all activities, contacts, and procedures as well as a reflective journal of the research experiences were kept and used to give sufficient description that enhanced the transferability of the findings.

Dependability

Dependability refers to the consistency of the findings over time and across researchers (Lincoln & Guba, 1985; Miles & Huberman, 1994). To address dependability, consultation with a peer debriefer was performed. The peer debriefer commented on all aspects of the study, particularly the data collection, analysis, and results, to determine if his or her conclusions resemble those found in the study. The peer debriefer also commented on the clarity of the research plan and its potential for consistency over time and across researchers.

Confirmability

Confirmability assumes that the findings reflect the participants' perspectives as demonstrated in the data rather than reflecting the researchers' perceptions or biases. In this study, confirmability was enhanced by stating assumptions about the topic of interest. In addition, the researcher reduced personal biases, such as refraining from influencing participants in such a way as to elicit responses that the researcher believes a given person should hold based on that person's background and experience with postsecondary school pedagogical approaches. Thus, the researcher carried the responsibility of promoting objectivity in the study. In an effort to clarify the researcher's preferences and ideas, a discussion of the researchers' personal beliefs as they related to the overall topic of interest were captured and shared as beliefs underpinning the study. Confirmability was also ensured when the researcher checked with participants to determine if the

researcher's interpretations of instructor perceptions matched with those of the participants. In particular, the researcher shared the transcripts, themes and analysis with each participant to perform member check.

Ethical Considerations

This study was conducted according to the ethical guidelines established by the University of Alberta. Before undertaking this investigation, the proposal and ethics application was submitted to the Ethics Review Committee in the Department of Educational Policy Studies, who subsequently examined both documents. The proposed study met the standard for the ethical treatment of human research participants and received approval. Several other measures were taken to comply with the University of Alberta's research standards. First, ethical clearance was sought to conduct the study from Makerere University, which indicated, by way of letter, the participants' awareness, support, and approval of this study. Finally, consent was sought and received from the selected participants to acknowledge their participation in the study. The following section addresses several ethical issues listed in the document entitled *Standards for the Protection of Human Research Participants*. In particular, the issues of informed consent and confidentiality are considered.

Informed Consent

Fully informed and voluntary consent was obtained from each participant in this study. All participants were provided with a contact letter regarding the purposes and procedures involved with the research; an example of such letter is provided in Appendix C. Participants were given as much information as possible regarding the reasons for their selection as well as the time and place of the interviews. The letter in Appendix C informed participants of the expectations for their involvement and provided them with an opportunity to ask any clarifying questions or sign any necessary forms. In addition, participants had the opportunity to decline their involvement or

withdraw from the study at any point with an assurance of confidentiality. Additional information was communicated regarding participants' time commitments, rights in the study, maintenance of confidentiality, and explanations of whom they should contact in case of any questions.

Confidentiality

Participants in this study were assured of complete confidentiality. The real names of the actual participants were changed to fictitious names for ethical and legal reasons while incorporating other safeguards to ensure confidentiality, such as omitting or fictitiously altering any situation that might disclose personal details. All recordings were transcribed and the data was discussed with only the research supervisor. Great care was exercised in obtaining, transcribing, and storing the raw interview data. Specifically, all raw data was stored in a locked cabinet in the researcher's home office. In addition, all transcriptions were performed immediately following each of the interviews and transcription data was not discussed in any way with any other individual apart from the supervisor.

Delimitations and Limitations of the Study

Delimitations

Study delimitations involve boundaries placed on the scope of the study. The study had imposed the following delimitations:

1. This study was delimited to SSA postsecondary school (university) instructors from the College of Education at Makerere University, in Kampala, Uganda. Specifically, the investigation was delimited to instructors with knowledge and experience involving student-centered learning methods, especially AL and IAE.
2. Due to the great number of student-centered learning methods and terms available for analysis, including personalized learning, experiential learning, project-based learning, and collaborative learning, the study was delimited to AL and IAE.

3. The terms provided in the definitions at the end of Chapter One were used in that context rather than in any other context unless clarified by the participants.
4. The terms “student-centered learning” and “interactive methods” were used interchangeably in the interviews. Both “authentic learning” and “Indigenous African Education” were considered subgenres of student-centered learning.

Limitations

The limitations comprise the restrictions over which the researcher has little to no control in the study. This investigation features the following limitations:

1. The accuracy of the findings was limited by the subjective opinions obtained through the interviews with postsecondary school instructors.
2. The accuracy of the findings was limited by participants’ abilities to accurately convey their experiences; in particular, participants’ inability to remember experiences, attitudes, and feelings may have represented a limiting factor.
3. In addition, participants might have potentially chosen to withhold information due to their lack of comfort with revealing sensitive information or to refrain from saying something that they think ‘society’ might disapprove or that may jeopardize their professional responsibility and status in their organization.

Recapitulation

This chapter has presented a research strategy comprising a qualitative, interpretivist framework that addresses Ugandan instructors’ postsecondary school pedagogical experiences through the case study method. In addition, a detailed research plan has been described, highlighting descriptions of the preliminary case study and the approach used to guide the identified methods for producing a comprehensive investigation into perceived experiences of SSA university instructors. In addition, the chapter has outlined a clear path to ensure trustworthiness of findings.

In order to adhere to the ethical considerations mandated by the University of Alberta, proper consent was obtained and the participants were assured the confidentiality of their information. Finally, this chapter has outlined the limitations and delimitations defining the scope of the study.

The remainder of the thesis presents the findings from the research plan and data analysis procedures followed by a discussion of these results as well as an indication of future work. Based on the necessity of ascertaining both themes within each individual case (Gall, Borg, & Gall, 1996) as well as patterns that relate the cases to one another (Yin, 1993), the results section will comprise two chapters. According to the information gathered from the initial interviews, follow-up interviews, and classroom observations, Chapter Four provides a case-by-case analysis based on the narrative depiction of each instructor's unique experience with educational pedagogies and the themes that emerge from each of these cases. In Chapter Five, the study examines a cross-case analysis of the different patterns or categories that relate the responses of observations of each individual case. Chapter Six presents a discussion of the findings by relating the study results back to the literature review, purpose, and objectives. The final chapter, Chapter Seven highlights the implications for PSE in SSA as well as discusses limitations and future research in this area and provides a conclusion that summarizes all of the work completed in this dissertation.

CHAPTER FOUR: RESULTS – CASE-BY-CASE ANALYSIS

While the previous chapter provided an outline of the methodology guiding this study, this current chapter presents a detailed synopsis of the data gathered from each of the six respondents. The overarching objective of this chapter seeks to ascertain what Gall, Borg, and Gall (1996) refer to as “themes” emerging from the interviews and classroom observations of each respondent, a Makerere University instructor. The data from each respondent, as presented in the following section, subsequently undergoes analysis in the next chapter, Chapter Five, in order to identify patterns that speak directly to the research questions guiding the study as well as the individual questions posed to the respondents (Yin, 1993).

As mentioned throughout the study, the research questions guiding the study asked instructors about the following:

1. What are instructors’ perceptions of their experiences with postsecondary pedagogical approaches or instructional methodologies implemented in their university?
2. What are instructors’ perceptions of their experiences with the degree to which AL is important, implemented, and supported at the university level?
3. What are instructors’ perceptions of the IAE pedagogy and how they relate it to their current postsecondary instructional methodologies?
4. How do instructors perceive the way in which teaching and learning in Ugandan PSE can undergo improvement?

In order to answer the above questions, the respondents were asked a series of both general and specific questions in semi-structured interviews. The questions are summarized in an interview guide found in Appendix B. After an introductory conversation, each participant was asked questions relating to the following aspects: a) the reasons that these participants decided to seek a teaching opportunity with the university; b) the characterization of participants’ experiences in

teaching at university; c) the participants' perceived experiences of the pedagogical approaches implemented at their university; d) the participants' perceived experiences of the degree to which student-centered learning is implemented and supported at the university level; e) participants' knowledge of IAE; and f) participants' perception of the way in which teaching and learning in Ugandan PSE can undergo improvement. After interviewing the participants, classroom observations were conducted for each of the six participants and notes were made in the reflective journal. Finally, the follow-up interviews provided an opportunity to query each respondent and record the responses for future transcription. The rest of this chapter captures themes that emerged from the combination of interviews, follow-up interviews, and classroom observations.

Data Analysis

This section of the chapter presents an interpretive case for each respondent. True to the form of a case study, each main part of this section focuses on a particular participant, thus fully revealing the responses from each participant before proceeding to highlight the next respondent. Within the analysis of each respondent, the sub-sections correspond to each of themes that emerged during the various parts of the interview. In order to maintain the confidentiality of the participants, pseudonyms were assigned to each of the respondents and identifying information was removed.

Ned

The first instructor, Ned, completed all of his education at an African institution. Ned stated that he “always loved teaching” and “had for long aspired to be part of” the teaching field. Ned joined Makerere University when he noticed an advertisement for a teaching position advertised in the local newspaper.

“Propelled” into teaching. Although Ned elaborates upon his love for education, he was, at least in part, drawn out of his former job in an administrative area of the university and “propelled...into teaching” by the limited promotional opportunities, relatively short career span, and lack of flexibility in his former position. Consequently, he “applied to switch departments

because [he] felt that [he] enjoyed the classroom.” After receiving his PhD, he progressed through the promotional process and eventually transitioned into his current role. In comparison to administration work, “the promotion criteria are very clear for teaching” and “there is also more flexible time in teaching. Once you complete your work at the school, you can go home and complete your work there.” Despite the obstacles that Ned has encountered in teaching, as elaborated upon in subsequent sections, he “believe[s] that [he] made the right choice to leave administration and switch to teaching.”

Mental stimulation. Ned admits that he takes genuine pleasure in the practice of teaching. He states that “the activity of teaching is interesting...I like teaching.” In particular, Ned asserts that teaching provides him with mental stimulation, especially through the opportunity to learn about new developments and trends in educational research. He maintains that “the activity of teaching...allows you to keep stimulating your mind, and you are reading all the time. You know whatever developments are taking place, so that is quite interesting.” This statement implies that despite the lack of resources and older teaching methodologies practiced at Makerere, as discussed below, Ned still continues to pursue professional development, thus attesting to his genuine love of teaching. In fact, Ned has updated his knowledge of AL through research, discovering that “it is the type of teaching that enables students to learn in a real-life context...[it] encourages students to practice effective communication, collaboration, teamwork, critical thinking, and interpersonal relations.” Thus, Ned acknowledges the mental stimulation involved in teaching and in AL.

Along with engaging in professional research, Ned enjoys other activities associated directly with the practice of teaching. He states that he “like[s] to prepare information to share with [his] class.” He also attests to his enjoyment for interacting with his students: “I learn about them as I interact with them. I learn from them and I learn how to handle them better with time.” The process of learning from students recalls an aspect of student-centered learning in which teachers encourage

students to share their knowledge rather than dictating information to students. In addition, Ned expresses his enjoyment for shaping students and producing successful graduates, stating that it provides him with a sense of personal gratification. He refers to “the aspect of sharing information, nurturing students, and producing a competent graduate” that enables instructors to think that they “produced that person...made that person what he or she is today.”

Heavy workload. Throughout his interview, Ned continually emphasizes the heavy workload that he faces as an instructor. In addition to his role as an instructor and department head, he supervises graduate and undergraduate students, coordinates school practice in different districts, and serves on several committees. In his primary instructor role, he faces challenges regarding the lack of teaching or tutorial assistants; he explains that, “we don’t have TAs because of the sheer number of students. When I was here as an undergraduate student, we used to have TAs, but as the numbers increased, that system was abandoned.” Ned elaborated that “there are more than 1000 first-year students, 900-1000 second-year students, and nearly 900 third-year students.” Due to these large numbers, Ned asserts that professors have tight timelines and often fall behind in their marking, which puts the students at a disadvantage, as they require feedback before completing their next assignment or test. Moreover, the heavy workload that Ned encounters through his multiple roles and responsibilities may prevent him from implementing AL. As he states in the interview, “I have seen some of my colleagues using this authentic learning methodology, but like I said it takes one’s willingness to sacrifice much to plan and implement this methodology.” Ned reiterates the difficult challenge of implementing AL, especially with limited resources and administrative support, throughout the interview.

Limited resources. Ned states that although he enjoys the mental stimulation that teaching provides, he finds teaching challenging due to the paucity of material, technological, and infrastructural resources. As he states succinctly: “I think this syndrome of no money has killed

everything.” For example, Ned repeatedly discusses the absence of a public-address system and poor Internet connections as well as the lack of books and other materials. Due to the lack of resources, instructors struggle to implement student-centered learning despite Makerere’s granting of pedagogical freedom. In addition, Ned believes that funding issues prevent Makerere from implementing student-centered learning as well as providing instructors with pedagogical retooling and orientation to the university, both of which are discussed in subsequent sections.

In addition to discussing Makerere’s insufficient resources, Ned addresses the issue of asset management. He believes that “there is money in this university but it is mismanaged,” hence arguing that Makerere administration has the potential to use their funds more efficiently, which includes acquiring resources to enable AL opportunities. For example, the school provides full writing booklets for the students, yet several of these booklets remain mostly unused; as Ned asserts, “I have rarely gotten a student writing even half of the booklet. This person used only one out of 6 sheets, which is actually 12 pages.” In this instance, Ned illustrates how, even with limited resources, the university poorly uses these valuable and costly learning tools. In addition to discussing inefficient resource management, Ned explains why Makerere may claim to lack adequate funds. “The university focused on quantity; they increased the numbers [of students], but they did not consider the implications of large numbers; they did not plan effectively.” Despite growing enrollment numbers that result in high tuition fees, Ned suggests that among instructors, there is “a general feeling that there is money here, but that it is mismanaged.” Overall, Ned creates the narrative that Makerere’s resources are not only insufficient but also poorly managed.

“Study by rumors.” As a result of the resource limitations, the students encounter several limitations in their own learning. Due to the large class sizes, Ned describes the situation in which some of [the] students say they study by rumors. What that means is that if you are teaching a class of 250 or 300, the conference hall can be packed to capacity, so after the lecture, the

students ask what the lecturer said and other students tell them, so that is a rumor; they study by rumors.

As Ned explains, the large class sizes combined with the poor acoustics, such as the lack of a public-address system or adequate speakers, renders the students at the back of the hall unable to hear the instructor. The concept of studying by “rumors” underscores the extreme lack of resources at Makerere as well as the way in which these limitations impede student learning.

In addition, to studying “by rumors,” the students also rely on memorizing photocopied sheets of paper. This expectation puts undue pressure on the instructors, who must make notes for the handouts; otherwise, “the students will say that you are a bad lecturer,” thus indicating the expectation that students have to learn by rote-based, lecturer-centered methods. Ned recounts that “when the students have lecture notes, they will cram the information in the hand out and information for the exams, forgetting everything the following day.” In fact, Ned repeats this process of cramming, reproducing, and forgetting throughout the interview, thus attesting to his strong awareness of its detrimental nature to student learning. At one point, he states that “the problem [with education] cuts across the entire education system of lecturing, cramming, reproducing, and forgetting the following day.”

“No interaction” in large classes. The large classes at Makerere, which can amount up to 1000 first-year students in a single foundational course, result in a high student-teacher ratio. The vast sizes of these classes and the corresponding large student to instructor ratio results in “limited communication [among] students [and]...a lack of teamwork.” Due to the large class sizes, Ned attests to the lack of interaction between students and instructors as well as among students: “in classes of this size, there is no interaction.” He states that students approach professors only to dispute a grade or ask an administrative-related question. As a result, the instructors use mainly the lecture method, which, as previously described, constitutes a teacher-centered method of learning,

where teachers lecture to students and provide the students with supplemental notes to follow along. Although some instructors have attempted to use class presentations, the large number of students necessitates the formation of large groups, where many students choose to refrain from participating in the group assignment. As mentioned later in the interview, Ned believes that large class sizes prevent him from implementing AL.

Unmotivated students. According to Ned, many students seem unmotivated to learn. Specifically, he mentions that they seem focused solely on grades and degrees. “Students want to get degrees with minimum input...they only care that they have got a degree, and they hope that the rest of it will take care of itself.” Specifically, students lack the motivation to complete the work that professors assign to them. In fact, Ned implies that cheating has become more common at Makerere: “things like cheating on exams were rare during our times; we had to read and prepare for exams, but these days, times have changed.” The lack of student interest in learning, along with the increasing trend towards academic dishonesty, suggest the negative effects of a teacher-centered learning system, which, as previously described, contains lecturing, memorizing, and regurgitating.

Part of the issue with unmotivated students may result from large class sizes, which inhibit student participation. He explains that “in order for all students to present, we are going to have each group consisting of 20 students. In a group of 20, maybe 5 will participate, and the other 15 will not participate.” Hence, even if students wanted to actively engage in their own learning, the large class sizes, and correspondingly, large group sizes, undermine this opportunity by preventing all students from fully participating. This arrangement potentially leads to a lack of student motivation and reinforces the teacher-centered learning method. In addition, the lack of motivation among students learning through student-centered methods such as collaborative group work may result from the fact that students have never experienced these methods before, possibly creating confusion. Ned hints at this possibility when he states that in order to effectively implement AL at

Makerere University, “learners might also need the skills, to be re-oriented to the methodologies and the learners, they might need to be re-oriented.” Additionally, Ned perceives that students lack an appreciation for the work of instructors: “they don’t know that you are doing so many things. They never appreciate the amount of work that instructors have.”

Teaching success determined by “right” or “wrong.” On a short-term basis, Ned assesses his own teaching success based on whether the students answer questions correctly or incorrectly as well as the way in which students apply their lessons to school practice. He states that, “when I see a student following the advice I have given in class, I think that student is an effective disciple preaching the gospel according to me.” This quotation doubly displays the effect of a deeply-entrenched system of teacher-centered learning; not only does Ned judge his teaching ability on the extent to which students follow his advice, but he also uses figurative language, where he envisions himself as a “disciple preaching the gospel” to demonstrate the prominent role of teachers in robotically dictating material to compliant students.

Over a longer term, Ned determines the success of his teaching on the basis of students’ commitment to the education program. When students complete their bachelor degree and apply for their masters, he considers his teaching successful; alternatively, when students leave the education program, he considers his teaching a failure. Ned maintains that

personally, when I am teaching, I try to encourage students to progress in their career, finish their bachelors, and come back for their masters. So, when I see some of them coming back, I feel that my work and encouragement has yielded some results.

Ned’s desire to push students towards fostering passion for their aspired career demonstrates his own love of teaching and his efforts to succeed in spite of the limitations he faces. However, he also implies his desire to uphold the strong reputation of Makerere. After a student fails at his/her school practice, Ned wonders:

if this student went through the School of Education...society out there tends to evaluate Makerere or its School of Education through the products. So, whatever mistake a graduate makes, [society] will think that the products of Makerere and the School of Education are inferior.

Ned's desire to uphold Makerere's reputation relates to the elitism surrounding the university.

Elitism. In conjunction with the perception that Makerere has relied on outdated teaching methods, Ned discusses the aura of elitism, which he terms "the commercialization of education." Ned recounts the way in which Makerere's association with elitism has led to the university receiving blame for the fact that other levels of schooling, such as primary and secondary school, have failed students. Although education students spend only three years at Makerere, "they have been in primary school for 7 years, and secondary school for 6 years, for a total of 13 years" which Ned considers "unfair." This particular discussion indicates Ned's awareness of how all levels of schooling in Uganda, and likely other SSA countries, provide a subpar level of education. However, universities, especially Makerere due to its longstanding tradition, have been associated with elitism, raising the expectations of the institution and exerting additional pressure on instructors.

In addition, Ned discusses how the elitist mentality associated with a university education at Makerere creates a correspondingly negative perception with vocational training. He states that in Africa, "there is a feeling that vocational education is for failures. Those who have failed to succeed in their seniors are the ones to take the vocational route." From this perspective, elitism represents one of the barriers preventing Uganda's policymakers and Makerere administrators from providing students with a more realistic education, as the "old school mindset" prevents instructors from implementing AL in the curriculum and classroom. Ned suggests that Makerere change its business model, focused on elitism, to promote learner-centered education.

No orientation or training. Ned mentioned that Makerere neglected to provide him with a proper orientation. He stated that the department head assigned him to a class and merely pointed him in the direction of the classroom:

He pointed out where the classroom was and told me that the students attend lectures from there. If you are lucky, he will come and introduce you to the class. If you are not, they will just tell you to go to [a certain room at a certain time]. Nobody will transition you into that. Ned mentions that this situation exists throughout the entire university, where employees must start work immediately and figure things out for themselves; in fact, earlier in the interview, he indicates that this method partially contributed to pushing him out of administration work.

In Ned's opinion, Makerere expects teachers to rely on the knowledge that they gained during their own education. Although the college has been developing programs to train instructors, "it is not like they do it every year; they have this program maybe once every 2 or 3 years." Similarly, despite the lack of pedagogical retooling, Makerere has begun to develop initiatives, such as an online course on competency-based learning; however, even this course requires basic infrastructure that many people in wealthy countries take for granted: a laptop and internet connectivity. "There is no money, so such opportunities would be there, but funding is the challenge. Colleagues sought the refresher courses, but there is no money." The constant theme of "no money" is emphasized throughout the interview, thus illustrating Ned's persistent belief that the lack of funding represents the root of all impediments to effective teaching.

Despite the lack of funds and material resources, Ned believes that orientation, in addition to pedagogical retooling, will help instructors to better implement AL in their classrooms. He states, "I think that training, especially staff training, is important." Ned also mentions the paucity of administrative support from policymakers and Makerere administrators. Although Ned refrains from explicitly mentioning the extent of Makerere's administrative support, he implies that lack of

support through his statement that “things can be different though if we had the support of education administrators, educational policy makers...and government in general to enable us instructors to implement a curriculum and teaching methodologies that support student-centered learning.” Similarly, he asserts that

policy makers need to be at the forefront to ensure that policies initiate and support this kind of teaching and learning methodology and curriculum developers need also to collaborate with us, the instructors, to bring authentic learning to life. It is also important to note that education managers should be willing to step up and support the implementation of authentic learning.

In addition, he comments about the infrastructural limitations that he believes administration can fix: “they should construct the necessary infrastructure and increase the number of lecture rooms, install working internet, build core computer labs with functional computers, and buy the necessary text books.” Since Ned acknowledges that Makerere can increase the support that they provide to lecturers, he believes that they can improve their efforts to foster the development of AL initiatives.

“You have to choose between two undesirable options.” During the interview, Ned describes his position as one in which he feels divided between two equally difficult alternatives: to continue with the lecture-centered method or to implement AL despite the obstacles associated with resources and time. However, due to these insurmountable challenges, he feels compelled to continue using the teacher-centered lecture method: “I myself don’t like it because I know that on its own it does not translate into effective learning for students.” Ned explains that although Makerere has granted him and the other professors pedagogical freedom, this freedom contains irony in that the funding and resource limitations restrict his freedom to teach in his desired manner.

Unlike primary or senior levels, at the postsecondary level, instructors “decide what to teach in a certain unit and how to teach it. However, in teaching [his] unit, [he] need[s] certain facilities

that are not in place, so [he] remain[s] with the lecture method.” This quotation implies Ned’s desire to divert from the traditional teacher-centered approach and adopt new and innovative methods of teaching, methods that require the establishment of funding and infrastructure.

Secondly, Ned’s persistence with teacher-centered approaches shows the way in which financial restrictions impede instructors’ ability to adopt student-centered methods. Ned’s frustration with this situation becomes palpable when he describes it “like being in chains and then someone locks you in a room and tells you that now you are free,” so that “choice loses meaning.” In the follow-up interview, Ned further elaborates that, “I would like to be implementing a real-life learning pedagogy, but it requires a lot of sacrifice on my side especially in the absence of support from education managers, education policy makers and employers from the business and corporate sector.” Due to his already enormous workload, as discussed in previous sections, Ned apparently lacks the time to procure his own resources. From this perspective, Ned seems divided between the desire to implement AL and the difficult challenges of using this method without support or resources.

Teacher-centered learning “does not consider the student at all.” While Ned acknowledges that he and other instructors rely primarily on the teacher-centered method of instruction, which, as previously mentioned, includes lecturing, note-taking, memorization, and regurgitation, he recognizes the detrimental nature of this pedagogy: “the teacher-centered approach does not consider the student at all; it does not consider the opinion of the students.” Ned believes that at the university level, professors “are teaching mature people. [Students] can form an opinion of a given topic or given issue at hand” and student-centered “methodologies would give them that chance.” From this perspective, Ned believes that students should be positioned as “knowledge makers” rather than “knowledge receivers.” Thus, while teacher-centered methodologies neglect the perspective of the student, including the adult learner, student-centered methods extract the

thoughts of students and “help them think and be creative.” In contrast, with the teacher-centered method, instructors “don’t really see critical thinking and problem solving happening.” Most importantly, however, the teacher-centered method “doesn’t put the students in control of their own learning” and alienates students from the real world, as discussed in the subsequent section.

In addition, Ned witnesses the way in which his students pass this method of teaching on to their own students. He states that “sometimes they will challenge us and argue that since we taught them by using the lecture method, they are confused when we tell them to vary their teaching method.” While the aspect of the students “challenging” instructors shows that the students possess the ability to conduct independent thinking apart from the teacher, their confusion at learning a new teaching method demonstrates an overreliance on teacher-centered learning. Not only does the lecture-centered method translate to a new generation of learners but it also causes confusion for students that learn by one method and receive instruction to teach in a completely different way, especially when they lack practical experience in that particular method.

Disconnection between teaching and real world. In addition to a lack of consideration for student opinions and needs, the teacher-centered method of general lecturing, which, in most cases, consists of reading from prepared notes, exists in isolation from reality; as Ned states, “the lecture method is not related to real life experiences.” As a result, education “involves teaching skills, some of which are not necessary.” Ned expresses his realization that at all levels of education, the lecture method fails to connect students to the real world. Even in elementary school, SSA children still learn foreign concepts that relate to colonial rather than local realities. He elaborates that

For a child in Uganda, the sun rises every day at 6 a.m. and sets at 7 p.m. in the evening.

However, you are telling him that during winter, the sun rises at midday and by 4 p.m., it is already dark. That is outside the imagination of this child.

In this instance, Ned pinpoints the colonial takeover of African education as one of the culprits for the failure of the education system to connect students to reality. Following the western colonization of African countries, students learned mainly about European culture rather than their own. Since Ugandan students, and ostensibly students from other SSA countries, learn about western history and geography, they lack the ability to relate the information to their own country. The disconnection between the western experience about which SSA students learn and the students' own actual local experiences undermines the authentic nature of their education.

At the postsecondary level, although the mandatory school practice component of the program connects students to the real world, the college and its instructors make no other attempts to provide students with an education grounded in real life. Conversely, Ned realizes that the labour market requires graduates with “hands-on” skills, rather than the abstract theories and ideas that Makerere provides to its students. He states that “the labor market requires somebody who is more practical, more hands-on, but the school system has not bothered to produce such a student because of the challenges within the school system.” In contrast to the traditional, teacher-centered methods employed at Makerere, the Indigenous methods taught practical skills and involved students directly in their future trade or profession while omitting theoretical, artificial, or useless skills. For example, Ned recounted that “if you were to become a blacksmith, you would work with this person and produce an item.” Ned asserts that Makerere should draw from Indigenous methods, as they are “far better than this current system.”

As one of his ideas for improving the connection between the classroom and the real world, Ned suggests that Makerere consider collaboration with corporate partners. He provides an example of this collaboration in an agricultural society, the Karamojongs, who not only learn about farming methods but also their school hours arranged around their agricultural responsibilities. Another solution he offers involves collaborative partnerships with corporate partners, who can help schools

by “tell[ing] [instructors] what skills the employer wants and how we can partner with them in terms of funding. They can help the universities so that we can work together.” Along the same lines, Ned suggests the creation of partnerships with other universities to share knowledge about AL methodologies. Finally, he suggests collaborating with community schools to “work towards securing teachers from those schools who are willing to support my students as mentors.” This process will ensure that students gain practical experience in real-world AL methods.

Classroom observations and analysis. During the observation period, Ned taught a second-year class. The classroom consisted of a blackboard at the front of the room with many rows of students seated in traditional arrangements of chairs and desks. Ned brought a few pieces of chalk with which to write and stood at the front of the room throughout most of the class.

Prior to the class, Ned had provided students with articles to read in preparation for the class discussion. Ned began the lesson by providing a very brief review of the previous class before proceeding to introduce a new topic. While introducing the new topic, Ned asked his students a few prompting questions to guide the students towards particular answers. Then, Ned proceeded to lead the lecture; however, he intermittently asked prompting questions to involve the students while allowing students to ask questions for clarification. When students asked questions, Ned redirected the response to other students in an attempt to play the role of facilitator.

While Ned remained mostly at the front of the class, he moved occasionally; however, he moved mainly in the direction of students engaged in participation by asking or answering questions. Since the students seated near the front of the class seemed the most interested and engaged in the topic, Ned’s bodily position likely influenced their participation level. Specifically, while few students raised their hands to offer contributions or ask questions, students near the front of the class were much more likely to raise their hands to participate in the discussion. In contrast, the majority of students, especially those seated near the back, remained quiet and inactive. In fact,

these students seemed distracted and engaged in private conversations for the majority of the class. Ned showed enthusiasm for the subject matter and seemed to particularly enjoy his role of dispensing knowledge to the students. Conversely, Ned seemed taken aback by any contrary viewpoints raised by students and exhibited minimal enthusiasm towards their unique contributions.

Ned's questioning strategy may have influenced the students' choice to participate in the discussion. In particular, his body language and speech suggested the potential of bias towards students that showed interest in the material while largely neglecting students that lacked engagement. The students that lacked apparent interest or engagement seemed confused, which suggested that Ned may have provided them with more attention. When Ned received questions from students, he transferred them to other students, thus acting as a facilitator in some respects. However, this approach seemed to discourage students from asking questions, as those that posed queries seemed to want a direct response rather than a redirection.

The classroom observations suggest that Ned used mainly the lecture-centered method of teaching. In particular, Ned's position at the front of the room, minimal movement, control of the discussion, and low level of student involvement suggested that the class displayed mainly characteristics of the teacher-centered approach or methodology. Ned made a few attempts to initiate student-centered learning through his use of higher-level questioning, which prompted students to think critically about the answer; however, the minimal extent of student participation suggested the ineffectiveness of this attempt. In addition, Ned's provision of a student activity prior to class presented the potential for student-centered learning, but his questionable timing, which left students without adequate time to complete the activity, eliminated the opportunity for increased student participation in a debate or other interactive learning approach.

The lack of student-centered, interactive, or AL in this particular class may have resulted from a combination of student expectations, resource shortages, and teaching methodology. The

student response to Ned's attempts to facilitate the class showed that they expected more of a teacher-centered approach that encouraged direct right or wrong answers. While the paucity of materials and poor lighting clearly impeded Ned's ability to implement student-centered learning, Ned still possessed some capacity for initiating debate through the timely provision of student activities and improved body movement or positioning. In addition, Ned may have used interactive strategies with limited resources, such as a whole-class debate, role playing, or collaborative group work, all of which can occur with minimal technological resources.

Ned also seemed to mostly neglect the inclusion of IAE in his teaching methodologies. During the class, he voiced his frustrations with his perception that instructors must use outdated teaching methods. He also discussed his displeasure with colonially-imposed western teaching methods that effectively alienated students from their culture and their local communities. Although he mentioned the importance of practical education in his lecture, hence showing his recognition of AL and IAE, he largely ignored both methodologies. The gap between Ned's understanding about the necessity of practical learning and his inability to effectively implement these styles suggests that several factors play a role, including personal knowledge, resource limitations, student expectations, and administrative barriers.

Craig

The second instructor, Craig, graduated from a SSA University and western institutions. He completed most of his education in western universities before returning to teach at Makerere. As a specialist in his area, Craig teaches different levels of students and fulfills various administrative roles. In addition to his teaching and research responsibilities, Craig has worked outside of the university in education-based positions. Craig began his teaching tenure at Makerere when another professor contacted him.

International experience beneficial. Throughout the interview, Craig discusses the way in which his international experience has helped him to develop active and interactive learning approaches to implement in his own classroom. During his studies, he “received the opportunity to take strong and relevant courses across the university; these courses really oriented [him] and gave [him] a firm foundation for returning to Uganda and making a difference in the education sector.” This assertion implies that Craig acknowledges how western education provides more opportunities for student-centered learning, thus indicating that instructors at Makerere and other SSA postsecondary institutions can draw upon methodologies from western universities as a means of introducing more effective teaching approaches, especially those that involve student-centered learning. In fact, Craig continues to “collaborate with colleagues” from several different parts of the world.

Craig credits his western experience for the way in which he teaches “differently from [his] colleagues.” He informs that in western countries, “it is more of a learner-centered approach right from the start” where students have “a clear picture” of the syllabus and course outline. Accordingly, Craig strives to implement a learner-centered approach in his classroom by assigning the students to read and prepare discussions in advance of class rather than simply lecturing. However, Craig believes that if he lacked exposure to western methods of teaching, he “might be teaching in the traditional way,” the typical teacher-centered method of educational delivery, thus implying the beneficial nature of his foreign experience.

Based on his positive international educational experiences and in implementing the student-centered methods that he acquired from these countries, he suggests exchange programs that send instructors to western countries will help Makerere to train instructors in AL. He recommends that instructors spend periods of at least four months teaching and learning in foreign universities as a way of improving their knowledge of AL “because these universities use hands-on

teaching.” Conversely, he maintains that internal staff development is not possible because some instructors can resist change. In particular, “they feel that since their approach to teaching has worked in the past, they have attained the title of a professor, and they have been teaching for 30 [years], they have no reason to change.” This conservative attitude represents one of the many obstacles that Craig perceives as limiting Makerere’s implementation of AL.

Teaching is “a great experience!” When asked about his experience at Makerere University’s College of Education, Craig called it “a great experience” in teaching students. In fact, when Makerere hired Craig, they invited him to participate in school practice, where he “successfully supervised 30 student teachers and [he] enjoyed the experience very much.” Craig enjoys peer teaching. When he and another colleague have similar educational backgrounds, “in a way, there is an alignment” between himself and the other instructor. However, he feels that the lack of pedagogical knowledge among Makerere professors prevents more instances of team teaching. Subsequent sections of this particular interview elaborate upon the “lack of knowledge” theme, which Craig identifies as a major barrier to AL.

In addition to team teaching, Craig finds that his teaching is most successful when students provide him with positive feedback about the usefulness of his methods and the fact that “they gained so much and they are always very excited to take [his] next course.” Moreover, Craig maintains that he experiences satisfaction in teaching when he sees his students take jobs in the education field or teach at the university level, as he expresses that he has been “touched” in these instances. In particular, he enjoys the fact that “many people that work or have worked with my former students are praising them for their competence.” Overall, Craig feels happiest about his job when he positively influences others.

Initial negative perceptions of student-centered methods. Craig mentions that his students initially held negative perceptions of student-centered learning methods due to their lack of

familiarity with such approaches as well as the extra work these methods involved. He states that “at first, some students think it is a joke, but eventually they realize there is a lot of learning taking place and they have to really get serious.” Throughout his interview, Craig reiterates the way in which students express reluctance to engage in AL because students “find [it] very difficult to adjust to.” For instance, when implementing project-based learning, further discussed in subsequent sections, Craig reported that students “initially found it very challenging to identify an instructional problem.” The challenge that students experience in adjusting to AL methods speaks to the rarity of such approaches in SSA education; since students “are used to just listening to a lecture and writing an exam,” new methods of teaching and learning cause them confusion and hesitation.

However, by the end of the course, the students appreciate this teaching style and realize significant learning from this approach. He states that

In terms of the feedback I receive from students, their initial opinion is negative because of the hard work required and their lack of experience with my teaching methodology.

However, at the end of the course, they state that they gained so much and they are always very excited to take my next course.

The positive feedback that Craig receives from his students provides him with encouragement for the success of these methods. He relays that some of his students use his in-class activities as ideas for their master’s projects, and, upon graduation, “some of [his] former students have been absorbed” in the education field or teaching at the university level, thus attesting to the usefulness of the student-centered methods that he provides to his students. Thus, despite the initial adjustment that AL requires from students, this method clearly connects students to the labor market, which they eventually appreciate.

“Students have become increasingly lazy.” Craig reports that some of his least successful teaching experiences relate to his frustration with the fact that “students have become increasingly

lazy,” which, as he repeatedly emphasizes, causes him significant frustration, especially when attempting to implement student-centered methods. As discussed, Craig’s students initially reacted negatively to his project-based methods. While part of the reason for this challenge, as previously mentioned, involved their lack of familiarity with such methods, the other part involved their reluctance to engage in hard work. Part of this reluctance may emanate from the fact that many students lack basic skills or lag behind in educational measures. In fact, Craig states that the students “do not want to read and [they] do not know how to write,” so they “come to class unprepared.” This explanation indicates that students’ hesitation to learn through new methods may result from their lack of mastery with basic skills rather than merely laziness. Since students lack confidence with basic literacy, they feel reluctant to engage in a learning method that requires them to use their reading and writing skills. Not only do Makerere students lack basic literacy but they also struggle with critical thinking and analytical skills. When Craig provided his students with project challenges, “it could take them weeks because they have to think very deeply.” The lack of basic literacy and soft skills, as well as the unfamiliarity with student-centered methods, create resistance from students in responding to new instructional approaches.

“Produce something I can see.” Craig states that he considers his teaching successful when the students “produce something that [he] can see,” which he later clarifies as “a tangible outcome.” This tangible outcome relates to the real-life method of Indigenous education, in which people physically work with the products of their learning rather than simply learning abstract theories about such products. For example, in Indigenous education, “if you make pots, [elders] would make sure they teach you all that you need to know about the whole process of making pots and the business side of this trade.” The concept of a tangible product therefore relates to not only the product itself but to the potential profit that may result from the product. As a result, Craig

believes that instructors can borrow from Indigenous methods by “emphasiz[ing] the alignment of knowledge, skills, and attitudes of trainees to current local needs of society.”

As another authentic instructional technique, Craig involves his students in the assessment procedure by encouraging them to set questions for examinations and review the questions to ensure that they make sense. He reports that “through this method, many of my students go to a higher level in these different areas.” This statement demonstrates the effectiveness of student-centered learning in preparing students for an uncertain labor market, as the practical activities that students perform in class provides them with the knowledge and skills that they can subsequently apply to their careers. Despite efforts to implement student-centered learning, Craig “still feel[s] that there is a lot lacking in terms of relating/connecting with the real-life labor market needed skills.” In particular, he suggests that students attend organizations to observe work taking place, which would better help graduates understand the labor market. Consequently, he believes that AL can be improved by “creating space for students to help them interact with the real world of work during and throughout their training...[to] help them develop the relevant skills needed.”

Prominence of technology in education. Despite the challenges with internet and computer availability at Makerere, Craig emphasizes the importance of using technology to deliver education. For example, he uses an online platform that resembles Moodle. In this platform, he posts assignments, facilitates discussions, and communicates electronically with his students. He maintains that this model works effectively for students geographically dispersed through different regions and their busy working lives. Craig remarks that students “can supplement their learning with online discussion, and by the time they come back [to class], there is a lot of dialogue going on, so that platform has been very useful.” This perspective of using technology contrasts with the opinions of other interviewees, many of whom had expressed that Makerere lacked adequate resources for implementing effective teaching methods.

Although Craig discusses his use of technology at Makerere, he proposes greater possibilities for incorporating technology in an effective manner by gaining knowledge from outside the university, especially internationally. He states that after an orientation on AL methods, professors “try using the internet more, especially the young Ph.D. graduates.” This statement implies that younger professors display less resistance to change, partly because “they do not have the fear of technology.” In contrast, “the old professors... are lagging behind in terms of technology...[and] are not willing to try to change.... They get stuck with the old methods of delivering, which centers mainly on the lecture method.” Since technology has become an essential element in education, especially for the implementation of student-centered methods, the reluctance of older professors to adapt to technology represents a significant challenge at Makerere.

Real life projects. In addition to his use of technology in the classroom, Craig also provides his students with projects. He states that “for many of my courses, I require my students to examine real life situations, challenges, or problems.” With these projects, students conduct research about problems and identify solutions while fulfilling the role of an instructor or school administrator, which represents a potential position in their aspired career. In particular, Craig enjoys providing his students with research projects that force them to identify gaps and find evidence-based solutions. He explains

For [one] course, we require students to identify an instructional problem, and then, throughout the semester, we try to come up with a blueprint where a student will create an instructional design course that provides a solution to this problem.

Since this teaching approach allows students to essentially role play their future positions and engage in practical problem solving about real challenges, the provision of real-life projects constitutes a student-centered or AL method. Towards the end of the interview, he maintains that

these projects will allow students to address “real-life...problems,” hence tuning students’ skills into labor market needs.

No oversight. While Craig expresses his appreciation for the pedagogical freedom that Makerere grants their instructors, he believes that in some ways, this freedom is excessive, as it involves a lack of oversight. Craig recounts that once an instructor has been hired, they “create [their] own agenda and start teaching, but I think that is problematic.” In particular, he mentions that educational managers, policymakers, and Makerere administration fail to provide any support or oversight for instructors. He speculates that

they may not even be aware that I am implementing these methods in my class. In the last 10 to 15 years that I have taught in the university, nobody has ever come to my class to see how I teach.

As a result of this lack of oversight, Craig feels that he lacks critical feedback for his teaching methods, as “nobody has come to [him] and told [him] that the way [he’s] teaching is wrong.” This lack of constructive feedback can stunt the professional development of instructors, not only stymying their own growth but also perpetuating the use of ineffective, instructor-centered methods. Although Craig states that he makes a genuine effort to implement AL, the lack of support he receives inhibits these efforts and fails to aid him towards further improvement.

Training and pedagogical retooling needed. In concurrence with most of the other participants, Craig attests to the lack of orientation and pedagogical training that Makerere gives to its instructors. He remarks that “staff development is a very critical issue” yet elaborates on the limited training and orientation that instructors receive. Speculating on the viewpoint of Makerere’s administration, he states, “I think they assume that when you come back with a Ph.D., you are good enough to start teaching.” This assumption runs throughout the university but especially in the College of Education, where the administration takes for granted that instructors have already been

well-versed in methods of educational delivery. However, he asserts that “staff development, teacher orientation, and probably teacher support are required,” thus insinuating the erroneous nature of the assumption about adequate instructor preparation.

Accordingly, he suggests that Makerere needs to develop programs for orienting instructors into the university and providing training opportunities. One such program, a two-week workshop in methods of teaching adults, has already been piloted. Craig proposes extending this program into a full course after obtaining opinions on its success from former attendees. Finally, Craig suggests that once professors have received retooling, especially from an international perspective, they will overcome the inertia traditionally associated with the teaching profession; “once people obtain that orientation, that exposure when they go out and train from outside the university, upon their return, their approaches tend to be changed.” Thus, Craig believes that pedagogical retooling can help instructors to overcome their resistance to change.

Money is no obstacle. Unlike other instructors that cite financial and material resources as an obstacle to implementing student-centered learning, Craig fails to perceive money or resources as a barrier to AL. In response to the idea that most professors consider money shortages as an obstacle to AL, he retorts: “I disagree that it is a question of resources.” Subsequently, he presents two reasons, or rather two scenarios for this belief; first, he mentions the fact that a professor can have the proper resources yet fail to implement them effectively to facilitate AL. In this case,

I can have 2 or 3 computers, projectors, white boards, and overhead projectors, but having those in place does not guarantee that I will use them to facilitate learning if I do not have the knowhow and competence to do so.

Since Craig believes that professors can possess learning materials yet fail to use innovative instructional methods, he discredits the position of resources as the root of the problem.

When discussing the fact that many Makerere University professors continue in the traditional methods of teacher-centered delivery, “even with the advanced stage of technology and many of the new possibilities that are available,” Craig suggests that sufficient resources exist at Makerere for the implementation of AL. Secondly, he argues that instructors can use minimal resources to implement AL successfully. Similar to other professors, he echoes the connection between AL and creativity:

The student-centered method really takes innovation and creativity rather than resources. We have a lot of resources in our local communities that can be used, but people do not make good use of them because they do not know how to be creative.

Craig repeats the necessity of providing instructors with “the ability to utilize the local resources in our communities” at a later part in the interview, thus pinpointing knowledge rather than resources as the problem. Craig elaborates on this second possibility by stating that as a means of improving teaching and learning at Makerere, and, generally, in SSA, teachers need to receive orientation into AL methods rather than procure additional resources.

“Lack of knowledge” main barrier. As mentioned, Craig pinpoints a lack of instructor knowledge as the barrier in preventing AL. “I think the problem is not resources but lack of insight, lack of knowledge.” In fact, Craig believes that “teachers tend to teach the way they have been taught,” which implies that since other instructors have learned through the teacher-centered method of delivery, they tend to continue teaching in this manner. Because most SSA university professors lack exposure to the student-centered approaches, they prefer the traditional, lecture-centered mode of instruction. Although the delivery of AL is possible with limited knowledge, “it takes a lot of energy to plan in advance, making it very difficult to plan when you do not know how to shape your lesson in this way.” Since most instructors suffer from extreme time limitations,

especially with the multiple roles that they fulfill, their limited knowledge inhibits their efforts to implement student-centered learning.

In addition to instructors, Makerere students lack knowledge of AL. While Craig includes AL as an instructional topic, the lack of foundational learning among both students and instructors accounts for his inability to execute and deliver this method to its fullest capacity. As previously mentioned, Craig's students struggled to adjust to AL due to their lack of previous exposure to it.

For instance, Craig recounts that when attempting to involve his students in assessment, he

discovered that there is no way to come up with a good question about authentic learning when you do not know anything about this type of learning. So, you need to know about authentic learning before you are able to formulate a good question about it.

In this instance, Craig reveals that his students lack knowledge about AL, which impedes his ability to not only deliver material through this method but also teach his students about AL methods that they can subsequently apply to their own students. As he mentioned earlier, students do what they have learned, which implies that students who fail to understand AL will continue to teach in dysfunctional ways, passing teacher-centered methods to new generations of students.

Today's education "irrelevant and useless." Craig remarks that in contrast to older methods of teaching and learning, such as IAE, today's mainstream education teaches students "skills [that] are irrelevant and useless within the context of our communities." These skills, as previously discussed, include memorization, cramming, and regurgitation on examinations. Craig perceives that part of the problem relates to instructors' philosophy of teaching: "If people believe that their philosophy of teaching involves lecturing, then it will continue to be the same way." This statement suggests that by changing the philosophy of teaching, Craig believes that instructors can implement more practical methods of teaching.

In contrast, Craig elaborates that Indigenous education provided a practical and holistic way of teaching students about real-life skills and preparing them for all aspects of their future trade. This type of learning “provided skills that yielded a solution to real life situations; in other words, students needed to learn and get the skills to solve a problem.” Accordingly, Craig asserts that Indigenous education “is contextualized in the real world, in what we understand.” Based on his perception of its usefulness, Craig believes that instructors should strive to incorporate Indigenous education into the classroom. He states that “we need to integrate some of those basic principles of Indigenous education in the main stream curriculum.” Subsequently, he lists three ways of integrating Indigenous education: a) inviting experts into the classroom; b) requiring students to visit organizations; and c) assigning projects that relate to real-life problems. He maintains that these methods, among others, will connect students more strongly to the corporate sector.

Classroom observations and analysis. In this class, Craig and a colleague co-taught a course. Craig provided a copy of the syllabus and course outline in order to facilitate an assessment of the way in which the outline aligned with the instructional topic. The topic designated on the day of the classroom observation seemed to coincide with the discussion that unfolded during that class. Throughout the duration of the class, the instructors used a fairly wide variety of teaching strategies, including a small amount of lecturing to segue the various segments of the class. While the instructors lectured, the students appeared to take notes on the material and copy notes from their peers when needed. However, the instructors used several interactive strategies, including group discussions, handouts, debates, and collaborative learning. The utilization of different instructional strategies personalized the students’ learning by allowing them to debate, collaborate, or apply course content to real-life situations.

At the beginning of the class, the instructors provided the students with directions and clarified the objectives of the session. Specifically, they asked the students to form teams to create

or improve upon an education-based project currently relevant to a community school of their choice. The instructors directed students to share their plan with the rest of the class for feedback from both the instructors and peers. Once students began working in their teams, the instructors moved about the room in order to spend time with each student group. While meeting with the groups, the two instructors checked to make sure that each group was on the right track and addressed any questions or concerns. When providing feedback to the whole class, the instructors used samples of student work as positive models of success. Similarly, they called upon students to provide answers to other student questions.

Both the instructors and the students generated significant enthusiasm for the course and the material under study. The students seemed excited during the group discussions, and the instructors encouraged their enthusiastic attitude by making themselves available to answer questions. Students asked questions that were relevant to the course material and to the instructions provided by the instructors. Similarly, the instructors used questioning techniques to solicit answers from students. In particular, both Craig and his colleague used probing questions that encouraged students to go beyond superficial or incomplete answers. In addition, the instructors asked both centering and redirecting questions to respectively focus the students' attention and solicit clarification or agreement from other students. When asking higher-level questions, Craig and his colleague encouraged students to compare and contrast certain situations and concepts or to analyze information and apply it to real-life circumstances. When instructors received questions that presented a different worldview, they respected contrary opinions or perspectives.

Many of the instructors' strategies appeared to support real-life or AL. First, Craig and his colleague held a collegial relationship with their students, providing students with control over the material by allowing them to work in groups and using conversational tones and gestures with students. The instructors freely mingled with the student groups and moved throughout the room to

situate themselves with the students rather than relying on students to approach them. Although the instructors used some lecturing, this strategy served to convey instructions and share information rather than to dictate the material to students. Furthermore, the aspect of collaboration and the freedom of the groups to design courses that relate to real-life instruction demonstrates a tangible outcome or product that occurs in a community context. The students also pursued expert consultation in the community by seeking teachers that required their assistance, and the students' ability to share their projects with the class relates to the design of material for an audience.

In addition to displaying aspects of AL, the teaching method also highlighted some elements of IAE. Not only did the instructors link the material back to real-life situations in their future field of work, but they also encouraged the students to explore their respective communities and identify gaps that pointed to the need for change. Moreover, the students served the role of apprentice when shadowing or learning from expert teachers in the field. By shadowing and receiving guidance from teachers or other professionals, students learn all aspects of their potential career, thus adhering to the holistic aspect of IAE. Similar to AL, IAE requires that students learn by doing or through a hands-on approach. Since students learned directly by shadowing, observing, and interacting with professionals as well as engaging in aspects educational design, the instructors implemented both AL and IAE in their teaching methodology.

Mathew

The third interviewee, Mathew, lectures and fulfills an administrative role. He held other career aspirations, yet his second choice always involved education: "I just said to myself, if I do not [fulfill my first aspiration], then I should become a teacher." Since Mathew narrowly missed the cutoff mark, he pursued a career in teaching. In fact, he even worked as a type of unofficial teaching assistant in his second year, where "some of [his] lecturers somehow trusted" him to dictate notes and explain examples to his classes. This experience enhanced his passion for teaching, resulting in

his eventual appointment at Makerere. Due to his high GPA in the education program, Mathew was offered an assistant lecturer position as a “recommendation from former lecturers,” which eventually became a full-time teaching position.

“Not a clear-cut process.” In describing the way in which he pursued a career in teaching along with a position at Makerere University, Mathew stated that it was “not a clear-cut process.” He describes the process by which Makerere recruits and hires new teachers. Internally, Makerere recruits exceptional students into the teaching staff once they graduate, while the university’s external hiring process involves “an appointment board” which handles advertisements, applications, and interviews. Mathew elaborates that

If there is a vacancy, it is advertised; people submit their applications, but as a department, we also try as much as possible to identify some of our good students whom we feel can join us on the teaching staff.

From this perspective, Mathew implies that Makerere uses several procedures for hiring teachers rather than simply relying on a single recruitment strategy. In addition, he indicates that Makerere intentionally monitors the more promising teaching candidates:

We encourage the whole group, but when it comes to these ones we have identified, we give them that extra care to see that they are molded and shaped into the kind of people or staff that we want to have.

Later in the interview, Mathew discusses the inconsistency surrounding Makerere’s policies for teacher credentials. For example, he states that “people that are appointed to teach here at Makerere must get their Ph.D. within the next 6 years of their appointment; however, we have colleagues who have spent 15 years of teaching without getting their Ph.D.” As a result, Mathew indicates his desire for Makerere to invest in more human resources at the admin level.

Initial experience of teaching “somehow challenging.” Mathew recounts that his first few years of teaching at the university involved challenges, especially since the reality of his initiation into the profession contradicted his expectations. In particular, his first assignment involved teaching a group of unconventional students. He states that “at first, I thought I was not going to the lecture room right away. I assumed that I would probably start by doing some minor activities.” Thus, similar to other professors, Mathew expected a gradual transition or orientation into his role rather than being immediately thrust into full lecturing responsibilities. This lack of orientation speaks to a common theme among Makerere instructors. In fact, Mathew reports that “if I had started with the conventional students, the undergraduates, it would have been probably fair to me.” Mathew’s implicit suggestion, that Makerere’s expectations of new instructors seems unfair, echoes the experiences of other professors.

In addition to the challenges of an abrupt orientation, Mathew explains that he experienced a learning curve in regards to his relationship with his students. As recounted in a subsequent section, Mathew initially experienced resistance towards his efforts to implement student-centered learning, which contrasted with his expectations. He recollects that in his early days of teaching, “I would go into the lecture rooms with high hopes that they must have read the article because the extract was about 4 pages; however, I discovered that less than a quarter of the class had read the excerpt.” This experience caused him frustration, where he ‘was fighting with [his] students...asking them why they don’t read.” Mathew’s teaching inexperience taught him the danger of assumptions, as he learned that his students lacked the motivation, time, or ability to read the assigned articles. This realization enabled him to adjust his teaching methods to integrate AL in a more effective manner.

Enjoys interactions with students. Despite Mathew’s initial misperceptions and frustrations with students’ reading ability, he indicates that overall, his experience with students has been mostly positive. He recounts his teaching history: “I think my experience with the students has

been good; I have never had any truly negative experiences with the students.” Mathew credits his positive experience to his own efforts to “respect [his] students and their ideas,” which encouraged them to respect his role as an instructor and follow his directions. Mathew’s description of teaching as a “two-way relationship” not only refers to his transaction of respect with his students but also the information exchange between the instructor and the students as part of an interactive teaching approach, which also coincides with AL. Mathew elaborates upon the ways in which he involved students in AL, including collaboration, communication, critical thinking, and problem solving.

Mathew’s positive attitude towards teaching stimulates his desire to see improvement in the profession, especially concerning attitudes towards the teaching profession. He informs that, “people have a negative attitude towards education as profession. In this country, we feel that people who have not performed well can still join the profession.” This revelation accounts, at least in part, for the reportedly low quality of teachers at all education levels in SSA. Conversely, Mathew believes that “for this country to develop, it needs higher quality teachers,” a statement that speaks to Mathew’s understanding of the strong relationship between education and the economy.

Uses interactive teaching methods. Mathew states that he has always used interactive teaching methods, which he himself learned during his postgraduate diploma. This approach emanates from his own teaching philosophy in which “learning is an interactive process; you do not just go and speak to someone and expect them to learn,” an assumption ingrained within the teacher-centered lecture method. Consequently, he explains that

I tried as much as possible to make my teaching interactive, and, of course, that goes back to my undergraduate level training, where we were encouraged to bring our students into the learning process, to make sure that they are given opportunity to say something and to come up with ideas about a particular topic.

In this example, Mathew describes student-centered learning, which involves “bring[ing]...students into the learning process” by inviting their ideas and feedback. In addition, he indicates that he learned to teach with such methods in his own education, possibly suggesting that in some cases, SSA teachers do instruct students about such methods. Although Mathew’s education provided him with some international experience, he expresses his desire to embark on exchange programs in foreign countries.

Throughout the interview, Mathew reveals that he uses a variety of different interactive or student-centered methods. While some activities require students to read materials prior to class, other methods include technology, which he mentions that students enjoyed because of “that way of interacting with anyone regardless of where they are, as long as they are connected to the internet.” Mathew’s comment hints at the spotty internet service throughout Makerere University as well as Uganda and possibly all of SSA. As another interactive technique, Mathew requires students to read materials before the lecture and asks them to share information with groups of other students as a pre-lecture activity. He reports that the use of interactive technology increased their interest and participation, even that of introverted students, who “would knock on my door to ask about specific aspects that they feel they should know or even read about.” This statement seems to suggest that Mathew’s use of technology not only enhanced student interest and participation but also motivated them to engage in reading, a generally disliked pursuit among SSA students. In fact, he even mentions that he helps other teachers with interactive technology by lending them projectors or helping them to access the internet for the purposes of implementing interactive teaching methods.

“The reading culture is low” at Makerere. Despite his attempt to implement interactive teaching methods in the classroom, Mathew initially struggled with student receptiveness to his new methods, mainly due to the students’ inability or reluctance to read assigned materials. He states that “there are times when I introduce a topic and then expect these students to have read

something. I tried to bring in those interactive techniques, and, at times, no student volunteered to say anything.” Mathew elaborates upon the possible reasons for this lack of student response, including their lack of initial knowledge on the particular topic or the fact that “the reading culture is low in this part of the world,” meaning SSA. As other instructors documented, the lack of literacy and student knowledge represents one of the barriers to implementing student-centered learning.

After realizing the shortcomings of his initial approaches to integrating AL, Mathew reorganized the structure of his teaching by providing interactive activities after rather than before the introduction of a new topic. He explains that

I think that in many of my lectures, especially after introducing a particular topic and telling students to read on that particular topic, I discovered that the methods I employ to teach them, especially those interactive approaches, have actually worked.

Mathew’s adjustment of his teaching approach not only shows the extent to which the lecture method, and students’ dependence upon it, has been ingrained into the system, but it also demonstrates the low levels of reading and critical thinking skills at even the university level.

Lecture method is most common. As is the case with the majority of instructors, Mathew reveals that the majority of Makerere professors use the lecture method as the main mode of instruction. Mathew states,

At the university level, we basically just use the lecture method. A professor, a doctor, or a lecturer stands in front of a class and talks about his subject matter to the students and then leaves the classroom. Sometimes, the students are not even given an opportunity to say something.

Mathew’s description of the lecture method paints a clear picture of the way in which Makerere instructors relay material to their students, which ultimately alienates the students from the learning process by their inability “to say something.”

In fact, Mathew includes himself among the majority of professors who implement teacher-centered learning, as he has done so during most of his tenure at the university. Mathew highlights one problem involved in the perpetuation of the lecture method; “it is a bit unfortunate that our students are expected to practice using interactive methods when we, as lecturers, still employ the lecture method.” Although students are required to understand student-centered teaching approaches, their lack of exposure to such methodologies impedes their learning.

Mathew explains the limitations that influence Makerere instructors to continue using the lecture-centered method. In particular, he points to the “huge numbers of students, especially at the undergraduate level,” which along with the faulty infrastructure, impedes him from implementing student centered-methods. Despite successfully implementing technology with smaller classes, Mathew realizes his inability to use this strategy with larger groups; “though the computer lab has over 100 computers, more than $\frac{3}{4}$ of those computers are not working.” As articulated by other instructors, funding represents another obstacle, as it not only prevents Makerere from obtaining sufficient material and technological resources but it also impedes instructors from taking courses to upgrade their knowledge, especially about innovative teaching methods. As a result, these resource limitations “can cause frustrations and discourage innovations.” Finally, Mathew mentions the extremely tight deadlines and busy schedule that he faces, which leave him with very limited time to plan AL activities. In this sense, Mathew’s identification of material limitations corresponds to the observations of other instructors.

“Several limitations” to the lecture method. While Mathew realizes that instructors feel relegated to using teacher-centered learning, he elaborates upon the limitations of the lecture method. He identifies the greatest shortcoming as “the fact that students are not given an opportunity to interact with the content. We believe that they have ideas, but they are not given the opportunity to express their views to the lecturer.” Without the opportunity to interact with the

instructor, students' "learning is incapacitated," indicating a disconnect in the communication between the instructor and the student. This gap in the interaction prevents students from responding to instructors, which, in turn, would facilitate the growth of both student and instructor since the student can provide the instructor with feedback about his/her teaching while the instructor can provide the student with feedback about his/her ideas. From this perspective, the "lecture method...becomes really difficult to help learners to construct learning."

In addition to the lack of student-teacher interaction, the lecture method has other limitations. Mathew reveals that when soliciting feedback from supervising teachers in the schools where students conduct school practice, Makerere instructors learn that the "students have the content but cannot teach. In other instances, ... students do not have the content but can teach." This revelation shows that while the students may possess some fragments of knowledge, they lack the complete skillset of a teacher. The gaps that exist in a students' knowledge, especially in their inability to deliver material in an efficient manner, demonstrates the negative effects of the teacher-centered lecture method, which students simply replicate at their school practice.

"Weaknesses with the process" of mentorship. As is the case with other instructors, Mathew discusses the weaknesses within Makerere's system of orientating new instructors. He reports that Makerere neglected to provide him with an appropriate orientation into teaching; as a result, he "would say that [he has] mostly learned on the job." Although Makerere has recently devised a system of mentorship for training new instructors, as described below, Mathew did not receive this type of training. Rather, he received a call to come to Makerere the next day, where he was simply "shown a course outline telling [him]...to teach certain topics." Mathew further reports that Makerere provides a two-day orientation session for administration members but not teachers.

While Makerere has begun to mentor new professors, Mathew states that "there are some issues with [new instructors'] mentorship or orientation into the staff." However, unlike the reports

given by other participants. Mathew describes a process of mentorship by which new instructors work with experienced professors. He states that “basically, we attach these new staff members to mentors, senior colleagues, so that the senior colleagues could take them through the process of becoming a university lecturer.” Specifically, this mentoring process involves experienced instructors that “keep an eye on them, [and] encourage them.” Although Mathew relays the notion that Makerere has a solid mentorship program in place, such a program fails to completely bridge the gap between “do[ing] their school practice in secondary schools” and “turn[ing] into lecturers.” Consequently, Makerere staff has spent the last five years trying to plan a program that will improve the teaching skills of new recruits.

“University is a type of experiment.” When queried about the extent of academic freedom Makerere grants their instructors, Mathew proffers that “university is a type of experiment.” This statement may suggest that Makerere administrators provide professors with leeway in their pedagogical methods or that instructors should take a flexible approach towards their approaches. Echoing the sentiments of other interviewees, Mathew finds the concept of freedom ironic in that although the instructors can choose their own method, they experience limited support from academic managers, who “do not go the extra mile to supervise colleagues and find out if they are really using what [they] have talked about in the workshops.” This lack of support leads some instructors to revert to older methods of teaching, namely, the lecture-centered method: “some teachers, as we have said, attend these workshops and then return to the old methods of teaching because they are convenient for them.” The convenience of using teacher-centered methods points to the lack of support for student-centered approaches and the obstacles preventing their use.

Mathew discusses the way in which, in his administrative role, he possesses certain freedoms and advantages that allow him to attend continuing education programs, workshops, or conferences, and subsequently “experiment with [his] innovation[s],” which include both student-

centered learning methods and the use of interactive technology as a means of supporting the former. He states that “if I come up with something new or whenever I want to travel for a conference, no one has denied me that opportunity.” Unlike other respondents, Mathew seems to indicate that the university provides administrative support alongside pedagogical freedom as “the environment within the university has enabled [him] and other colleagues to experiment with innovations that [they] feel are good for the university and [the] students.”

Opportunities for real-life learning. According to Mathew, both instructors and students have legitimate opportunities for real-life learning. In fact, Mathew defines AL as “teaching and learning that are grounded in the real-world environment,” where “learning must not happen in the classroom alone but should be extended to places where real-life activities are happening.” He reports that students gain AL at their school practice, which occurs for three months per year. He explains that, “school practice is one avenue that helps [instructors] take [the] students to schools, where they practice for about 3 months per year or 6 months of their total academic period.” In addition, students have the opportunity to attend national conferences, where they can “listen to teachers, their challenges, [and] how they have been able to create opportunities for learning in their classrooms.” Finally, students in other departments can visit cultural sites and or learn via fieldwork; however, the College of Education lacks practical learning opportunities or placements outside of school practice, which limits the extent to which students can practice their learning.

In addition to students, instructors also have opportunities for professional development. Mathew explains that he learned about AL by conducting research. Also, instructors have the option to attend workshops and seminars, including those that teach AL. He states that “we always conduct workshops on interactive methods of teaching and other contemporary approaches to teaching but only some instructors choose to attend such workshops.” The fact that only some instructors have attended the workshops attests to the lack of interest or time limitations facing the professors, thus

pointing to other challenges that exist alongside a lack of knowledge. Later in the interview, Mathew states that some departments in the College of Education have made some attempts to teach instructors pedagogical skills that involve interactive methods. Even amongst the instructors that attend the workshops, as stated above, the lack of administrative support discourages the teachers from trying new methods; the resulting apathy may influence them to return to the old methods “because they are convenient.”

Aside from seminars and workshops, both graduate students and instructors can take advantage of other training programs. Specifically, Mathew reports that Makerere has spent the last five years attempting to plan an orientation program to initiate new instructors into their role. The university also offers training programs that “provide research method workshops for supervisors of students and lecturers,” which, similar to the pedagogical retooling workshops, feature mixed participation rates. Mathew also mentions that funding limitations prevent Makerere from sending more instructors on conferences to further their knowledge.

“Mismatch” between pedagogical methods and labor market. Mathew confesses the existence of a “mismatch between the way that we train our students and the changing trends out there” before explaining that Makerere is currently in the process of attempting to make adjustments to the process. In order to clarify this “mismatch,” Mathew differentiates between different models of learning, including the “Craft Model” and the “Applied Sciences Model.” As a postgraduate student at another university, Mathew experienced the Craft Model, “which involves on-the-job training.” Although Makerere’s College of Education initially followed this model upon its origin in the 1990s, the university has since adopted the Applied Sciences Model, “where we first bring students into the university, teach them for some time, and give them content; then, after two years, we take them to school practice.” However, Mathew relays that the Craft Model contains

its own weaknesses, which include the fact that “sometimes experience does not make someone a master teacher,” especially one “who has stagnated in the profession.”

He further elaborates upon the distinction between these two models when discussing IAE. Indigenous education employed the Craft Model, where “grandparents used to teach their children within the specific working environment.” He believes that Makerere should “borrow from the African setting” to “move in that direction.” Although the idea of fully implementing all aspects of Indigenous education with the university environment is impractical, Mathew suggests that Makerere combine the Craft Model with the currently-used Applied Sciences Model. In particular, he suggests that when Makerere sends education students to school practice, they can completely shadow their “master teachers” to learn all aspects of the teaching profession:

They could accompany their teachers to classes and to the staff room. When they are marking, they could spend time together, so the major responsibility of the master teacher was to take the student teacher through the various activities that the teacher believes will enable the student to become a good teacher.

Similar to the holistic nature of Indigenous education, Mathew suggests that students learn all aspects of the profession rather than simply the classroom portion.

Improved coordination amongst stakeholders. When asked about some of the major improvements that Makerere can make in implementing student-centered learning approaches, Mathew emphasizes the need for greater collaboration amongst the various stakeholders. First, he expresses his desire for all stakeholders to “recognize that we are no longer in the 19th century and appreciate the fact that we live in the 21st century where everything has changed including the labor market demands.” This explanation implies Mathew’s understanding of the crucial connection between education and the labor market as well as the mismatch between the two aspects. In addition, his emphasis on modern technology explains his usage of interactive teaching methods.

However, Makerere lacks a policy mandating that professors implement AL, as individual instructors can use their method of choice. In order to achieve more uniformity in this regard, Mathew encourages instructors to “accelerate advocacy for these initiatives” to stakeholders, so that educational managers and government can support AL. In fact, he even suggests that Makerere should partner with employers “to give students opportunities where they learn by doing, implementing real world activities, and gathering and obtaining the experiences needed.”

Mathew explains that while some areas of the university have been attempting to “spearhead interactive methods,” other aspects, such as funding and infrastructure, frequently cited by other interviewees, have impeded such efforts. In particular, he expresses the need for more staff members at both the instructional and administrative levels, as “the staff is thin in many areas.” Mathew conveys an image of Makerere as an institution that constantly undergoes change; similar to the way in which the university switched among different teacher education models, Makerere changes policies, such as teacher credentials and staff development. He believes that Makerere’s implementation of policies also lacks consistency, as “there is a lot of laxity when it comes to implementing certain policies,” such as those concerning instructor credentials and ICT. Moreover, he calls for greater intradepartmental organization to achieve better allocation of responsibility.

One way in which the instructors and administration have attempted to achieve this objective involves “interact[ing] with the administrators, head teachers, deputies, and directors of studies” at the feeder schools. However, the internal environment within Makerere needs to achieve greater collaboration. For example, he argues that interdepartmental collaboration can improve the orientation, training, and knowledge of new instructors:

the Human Resources Department must induct newly appointed staff rather than leaving this task for the individual departments. Human Resources could work hand-in-hand with

departments; for example, with two new teachers that were appointed last semester, Human Resources could inquire into the department's efforts to induct the new staff.

With greater coordination and more effective collaboration, Mathew believes that Makerere could establish an environment conducive to AL. In addition, Mathew advocates for greater collaboration amongst external stakeholders. He states that "the major [educational] stakeholders somehow work in a fragmented manner," including the lack of oversight by the National Council for Higher Education and The Ministry of Education's reluctance to implement quality assurance programs.

Classroom observations and analysis. During the observation period, Mathew taught a class that was significantly smaller than most classes in the College of Education. The class took place in a room where students sat face-to-face across a large table. This structure facilitated greater interaction between the instructor and his students as well as among the students.

Prior to the class, Mathew had assigned his students reading homework that formed the basis of the discussion topic. The class under observation therefore appeared as a continuation of the previous class, where students had engaged in preparatory work. At the beginning of the class, Mathew instructed his students to design a project based on a real-life education situation. Then, Mathew encouraged his students to form collaborative groups and begin working on their plan. Students had previously visited schools to gather data and consult with teachers in rural secondary schools and other professions. Once students had completed a certain portion of their project, Mathew invited them to engage in role-playing and peer-to-peer teaching as a way of practicing.

During the class, Mathew fostered a collegial relationship with his students by engaging with them in a calm and conversational tone rather than dictating to them in an authoritarian way. However, he varied the tone of his voice depending on his relative positioning among the students and the activity at hand. While the students worked in groups, Mathew circulated throughout the classroom to meet with each and every student in order to check their progress, provide

suggestions, and answer questions. Mathew used positive and engaging body language with his students, using gestures to support or enhance his words and making eye contact with students that make inquiries. When students raised legitimate points or clarified ideas, Mathew nodded his head to encourage them, which subsequently enabled other students to make inquiries of their own.

In addition to encouraging student questioning, Mathew used questions of his own to prompt students and encourage a full-class debate. Mathew's questions mainly intended to facilitate students' independence in their own learning. In particular, he focused his inquiries on higher-level questions that stimulated critical thinking. His questions contributed to personalized learning by targeting the individual learning needs of each student and catering to their personal circumstances. Mathew invited students to speak about their personal experience, which connected their classroom learning with their real-life background. In addition, he used questions for the purpose of attaining student feedback about the class to ascertain their opinion and solicit their contributions. When responding to student questions, Mathew expressed positive and receptive body language and voice tones that showed his encouragement of student queries. When responding to student questions, he confirmed their thoughts or ideas, probed them for further exploration, and redirected questions to other group or class members as a way of encouraging student contribution. Similarly, Mathew appeared quite receptive to contrary viewpoints and student suggestions or feedback.

Mathew employed a variety of strategies, including whole-class discussion, collaborative learning, peer teaching and role play. In addition, Mathew referred to specific technology during the class, which attested to his attempts to implement technology among his teaching approaches. The students responded positively to Mathew's active teaching methods by demonstrating engagement with and enthusiasm for the material. Mathew also responded to student participation with enthusiasm and eagerly responded to student inquiries. By varying his teaching approaches,

Mathew maintained the students' interest and alleviated any potential boredom from prolonged listening periods or long activities, thus proactively eliminating any distractions.

Based on the observation of Mathew's class, Mathew employed AL in several ways. First, Mathew actively involved students in the learning process by acting as a facilitator or event manager. During the process of collaborative student learning, Mathew visited student groups and provided suggestions or feedback while prompting students to explore their learning further. Furthermore, Mathew relates the students' classroom work to real-life situations. In order to complete their activity, students had visited the schools in the community and consulted with experts to gather useful data for their projects. The process of consulting with experts and integrating the community into the classrooms corresponds AL. Finally, the students created a tangible outcome in the form of their design plan and shared this with their peers. In conjunction with AL, Mathew employed personalized learning, another student-centered instructional approach, by connecting students' personal experiences to the material taught in class.

In addition to employing a variety of AL strategies, Mathew incorporated some principles of IAE. The provision of practical activities and the concept of their usefulness within the context of the community aligns with the objectives of IAE. Furthermore, Mathew addressed the holistic nature of education by providing students with a long, intensive research project that integrated the various parts of their prospective career. In particular, the students collected data in the schools and consulted with expert teachers, thus fulfilling the role of apprentices observing and interacting with masters as the case in IAE. Students completed other practical activities relating to their aspired profession of teaching, including simulating the roles of students and teachers, engaging in practical teaching with their peers, and working in a collaborative context. In fact, the process of collaboration fulfills the aim of working together in a community as per Indigenous learning.

Carlton

Carlton first began teaching at Makerere University, when, similar to another interviewee, he “came to learn about the teaching opportunity from the local newspaper here in Uganda.” Carlton transferred from another African postsecondary institution to Makerere because “Makerere offered the best opportunity for [him] to re-contextualize all the knowledge [he] had gathered during [his] studies” at a western university. Like other interviewees, Carlton stresses the benefits of international learning as a way of gaining exposure to innovative learning methods. As a major in another discipline, Carlton had the distinct advantage of holding previous knowledge in this field as a way of learning about student-centered educational methods, such as AL. In order to enhance his knowledge, he attends conferences and peruses reading materials. Similar to other interviewees, Carlton explains that his original aspirations involved a career outside of the education field.

Motivated by problems in education field. Despite his initial aspirations to pursue a career in another field, Carlton explains that he felt motivated by some of the controversy surrounding the teaching profession. In his previous major, he had accumulated a specific outlook that he believed education would especially suit. As he reveals, “education would be the most exciting and challenging way of putting into practice my dreams for a more pragmatic and constructionist worldview.” The constructivist worldview to which Carlton refers echoes the constructivism of John Dewey, a predecessor to today’s student-centered and AL.

Moreover, Carlton explains the contrast between the educational change occurring throughout the rest of the world and the conservative environment at Makerere. While “outside of the university, it was very controversial in the fields of psychology, sociology, and the humanities,” Makerere “was a settled environment, traditional, conservative, and things were always running the same. The courses were planned the same way as they have always been.” The contrast between the

educational change outside of Makerere and the stagnation within Makerere points to Carlton's belief in the outdated nature of the university, as "many things were not even slightly advanced."

Collaborative teaching and learning. Carlton discusses his extensive involvement in collaborative or team teaching. In one of his projects, Carlton and another instructor initiated their collaboration efforts by starting a program that addressed local events. Since both instructors had many connections, they attracted donors and extended their collaboration to other universities throughout SSA. This concept relates to AL because it provides education students "with skills relevant for coping with students, teachers, head teachers, and parents/guardians." Carlton explains that "the process of co-organizing something new is not easy, but we stuck to our guns...some people immediately adopted our methods."

Carlton believes that instructors should not only engage in collaboration but also foster collaboration among students. He argues that, "with the old method of teaching, students would not talk to each other," but with AL methods, such as group discussions, "the groups and the discussions bring them together. They form a class, and so there is a likelihood they will help one another." Carlton elaborates upon the necessity of restructuring the classroom environment: "seating arrangements can be a problem...[students] should [be] closer to each other with tables surrounding each other. Some students were a bit far from each other, so you could see that there are gaps." Moreover, Carlton states that his teaching yields success when he witnesses students teaching one another: "it really makes my day when I see a student ask a relevant question and the other students are engaged in answering it...I don't have to answer the question because students attack the problem from many angles." The engagement between students in creating their own learning, along with the facilitation role of the instructor, corresponds to student-centered learning; hence, Carlton believes that collaborative learning methods can enhance AL.

“**So many isms.**” When discussing the abstract nature of Makerere’s teaching methods, Carlton asserts that education courses provide students with solely abstract knowledge. He maintains that instructors “are giving students idealism, realism...[and] some existentialism. [Instructors] give them so many isms and then ask them to reproduce them, to understand them.” The repetition of “isms” signifies the elitist, academic nature of Makerere, reinforced in different parts of the interview. In fact, Carlton reveals that Makerere has “a top-down structure” that starts with the Ministry of Education. He explains that when British colonists built the university, they wanted to establish a real colony. They wanted to produce teachers for the existing system, like eggs in a tray or bottles in a crate. They wanted everybody to fit where they are supposed to fit so that the whole system works efficiently.

The idea of fitting ostensibly identical specimens in a uniform space echoes the one-sized-fits-all homogenized approach to education that precludes student-centered learning.

Moreover, the theme of reproduction and memorization occurs throughout most of the interviews, which shows the consistent belief among Makerere instructors that these processes, which comprise teacher-centered learning methods, represent the dominant mode of teaching at Makerere. In fact, Carlton explains that some courses are “the most abstract thing that you just had to perhaps memorize and get whatever you got out of it and then forget about it.” In this quotation, Carlton summarizes the process of teacher-centered learning, where students listen, memorize, and forget. This belief emanates from the top of the educational hierarchy, where administrators “believe that Makerere instructors should just lecture and pass students through the system.”

Furthermore, Carlton underscores the major role that photocopiers, a poignant symbol of reproduction, played within the teacher-centered learning paradigm. He maintains that “all [students] wanted were precise notes given to them so that they could give them back to [us] on the exam, get their degrees, and leave.” Consequently, “photocopiers were a big business here” because

“notes had to be photocopied. If you did not photocopy the official notes, you were crazy.” The dependence that students and instructors held on lecturing, photocopying, memorizing, and reproducing notes attests to the prevalence of the lecture-centered methods at Makerere and suggests the challenges of changing a system so deeply ingrained in the university.

Lack of personalization. As mentioned by one or two other interviewees, Carlton believes that Makerere focuses on the wrong objectives. Some members of university’s administration and instructors “tend to think of the money.” Carlton, in agreement with another instructor, states that Makerere’s model emphasizes profit by attracting large numbers of students without sufficient teaching resources. “The school is too expensive; it is all about making money. Nobody from the ministry cares about the quality of education.” Similarly, Carlton claims that professors collect a paycheck without attempting to improve their teaching. He asserts that, “I want to stop this mentality of saying teachers are poor and complaining that no government will give us money.” Unlike other interviewees, Carlton argues that instructors’ heavy workload fails to represent a significant obstacle, concurring with his subsequent assertion that teachers will intentionally remain mired in older methods of teaching. In fact, even today’s education students perceive the discipline in a negative light because of the apparent lack of money in the profession. “In the School of Education, many students get accepted but they reject [education] in favour of FEMA. The students that do accept [this] offer come with this negative feeling.” This “negative feeling” results from the materialistic culture that Makerere, and perhaps even SSA society, has embraced.

The material culture of the university results in a lack of personalization. Carlton describes that

There is no personal contact. You never know your students; they have never spoken to you. They just have names or numbers, and then you make papers and attach marks to those numbers. That is it. This is education, and you are an educator; it is so impersonal.

The impersonal nature of teaching leads to a teacher-centered approach that distances instructors from students. In fact, Carlton relates the lack of personalization to the lecture method in his assertion that “this impersonal kind of education is lecture-centered.”

Conversely, Carlton associates a greater level of personalization with AL. He states that the student-centered teaching approach “has allowed the situation to become so personal, because in the discussion, [instructors] sometimes divert from the syllabus. In this instance, [instructors] ask what is happening outside of the classroom, after [students] graduate.” The repeated emphasis on collaboration and networking further highlights how increased personalization and personal contact connects students with the real world. Carlton recounts how “some [students] invite us to see what they are doing on their farm. When we go there, we feel a sense of insignificance. They have such potential.” The personal contact between instructors and students extends to the real world in which students can succeed with interpersonal skills.

We need to “bring down the walls.” At various parts throughout the interview, Carlton emphasizes the need to “bring down the walls” between the university and society. Specifically, he repeats this phrase when discussing the role of the labour market and the need to return to some of the principles underlying Indigenous education. He first mentions the concept of a school without walls when referring to “a kind of creative economy” towards which Makerere should ideally aspire. He states that “for the creative economy, we do not need buildings. I will take you to a garage where they are training young people to be mechanics. There is no building; it is just a garage.” The fact that students learn in a garage rather than a school recalls the apprenticeship approach used in IAE as well as the Craft Model mentioned by another instructor. Both approaches coincide with student-centered learning, which provides students with hands-on experience.

In addition, Carlton associates the lack of walls with Indigenous education. He indicates that during Indigenous times, people survived without the necessity of formal education: “the

environment promotes the idea that people must take care of themselves.” Since Carlton maintains that boarding schools alienated people from their environment, “nobody should build walls around schools.” The division between the school and the community has resulted in the loss of Indigenous knowledge, most of which has permanently disappeared. In fact, Carlton refers to this separation as a “kind of apartheid or apartness” where “schools teach [students] to ‘unlearn’ the community.” The description of the school-community separation as “apartheid” invokes the hierarchical model of elitism references throughout the interview, where Makerere is a “model for producing the elites.” This sense of elitism embedded into the school-community separation represents a major philosophical barrier preventing AL from truly taking shape at Makerere.

“It is a world of persuasion.” Along with discussing the need for collaboration, Carlton explains the other soft skills that students need to learn in order to succeed in the job market.

Carlton emphasizes the importance of teaching students critical thinking skills. He argues that

People are trying to persuade, negotiate, and reach some consensus. Self-expression involves a combination of so many issues because with the use of language, that is what actually we do; we are always negotiating, making compromises, and that kind of thing.

In addition to critical thinking, Carlton’s statement suggests the need to teach students other soft skills, including communication, collaboration, and problem solving. In fact, he argues that employers seek these skills in graduates:

Today, unfortunately, on graduation day, nobody will be there waiting for you with a job; instead, you will be on your own. You need to develop personal skills, persuasive skills, self-presentation, and innovation, the latter of which involves seeing an opportunity where others do not see the same

Carlton repeats his emphasis on “persuasive skills,” as well as mentioning another important soft skill in innovation. Since AL supports the development of such skills, Carlton seems to validate AL

as a legitimate teaching method. Finally, Carlton mentions the importance of technology in “persuading people and marketing personal information” through images and music.

Importance of networking. As in the case of collaboration, Carlton discusses the importance of networking within the context of AL. He believes that not only should students form networks with one another through in-class collaborative learning but they should also network with one another outside of the classroom. Carlton discusses that “students really want us to go and see their small projects. Whether it is a small kiosk, a barbershop, or even a school, they say those discussions changed their life.” This statement suggests that student-centered learning methods, such as collaboration and networking, allow students to succeed in the real world. Carlton implies the need for networking when referring to his initiative, which teaches education students skills for dealing with different educational stakeholders.

Carlton also brings up other initiatives that may improve networking among individuals, especially in a community context. He mentions that they should engage in realistic, collaborative projects such as journals, reports, models, performances, debates, artworks and travel. These activities allow people to establish relationships with others and to interact with different people and groups in the community while learning in an authentic way. Furthermore, Carlton mentions networking in conjunction with Indigenous education and ways of living. He posits language as the beginning of learning, “to allow for communication with parents and the family,” which subsequently extends to the community members. Through effective communication, people can collaborate and form networks to deal with “immediate challenges” in the home and community.

“Today’s world does not fit people in boxes.” In contrast to the earlier metaphor of the egg crate, which shows the inflexible, lecture-centered approach to education, Carlton emphasizes how today’s society has changed to embrace a flexible mentality. When discussing the perception of career status, he asserts that “today’s world does not fit people in boxes.” This statement

highlights that rather than training a student for a specific job, instructors should provide them with a flexible skillset that allows graduates to adapt to their own career choice. Carlton suggests that realistic learning approaches develop such skills by “giving [students] a flexible identity rather than the traditional class expert with standard procedures of teaching.” He elaborates upon this flexibility by adding, “the reality of today is the lack of predictability.” This lack of predictability refers not only to the labour market but also to the flux occurring in the discipline of education in which Makerere has lagged behind. He states that “the government has shrunk and the informal sector has expanded” in society, so education should adjust accordingly.

Throughout the interview, Carlton constantly reiterates the notion that the world has changed, yet education has remained constant, thus creating a gap between Makerere and the real world. When providing an overview about his teaching approach to new students, Carlton states that, “we tell them how the world is, and we tell them how the world has changed.” The changing world provides impetus for Carlton and a small sample of other professors to implement student-centered learning initiatives at Makerere. This approach attempts to align with “how the world works and why we use the type of education that we do.” The changing world is one in which “entrepreneurs...are school drop outs” while university graduates have a certificate yet no real education that they can apply to the community.

“Still stuck in the old methods.” Carlton emphasizes the way in which instructors, policymakers, and administration remain trapped in older ways of thinking and teaching: “university education is all lecture-centered.” He describes education managers as “dragging their feet” in terms of providing support to instructors. As mentioned, Makerere’s stagnation shocked Carlton when he first arrived. He remarks that, “the education system does not know how to change, so the entire system is lagging behind.” In comparison to education, he highlights that other industries, such as agriculture, have undergone substantial change while education lags behind.

Carlton argues that these “old methods” are “wrong” because they lack compatibility with the realities of the modern world. Carlton expresses his understanding that students experience the greatest extent of suffering in this outdated system. When he first came to Makerere, Carlton used the lecture method, which made him feel that he was “cheating his students.” After changing his methods to learner-centered approaches and noticing the difference, he states that, “I pity the first students; we wanted to call them back and apologize. The poor guys just had to cram.”

In concurrence with other instructors, Carlton argues that resources, especially technology, infrastructure, and materials, represent an obstacle to student-centered learning; however, he believes that “the mindset is the most problematic,” especially among lecturers. In fact, even younger lecturers experience a resistance to change; during the curriculum review periods, where “they do not even divert from the traditional method; they just add in a few things here and there. You do not see real effort.” This “real effort” extends to the requirement of advancing professional knowledge and academic upgrading among instructors. However, “they will...stick to the old method of teaching” rather than striving to “remain updated on current trends.” This sense of apathy goes beyond individual instructors and permeates throughout the entire school.

“Definite problems at the top.” When discussing the top layers of the educational hierarchy, which includes the government and administration, Carlton maintains that “there are definite problems at the top.” Makerere remains mired in a traditional, top-down hierarchical structure, so that “everything [is] controlled from above. Prediction breeds control, especially at the government level.” Since the top levels have most of the control, their resistance to change represents a major barrier to implementing AL. Even when instructors attempt to initiate new methods of learning, the education managers provide minimal support. Although Carlton admits that the education managers have provided instructors with technological devices, they still require more support, especially in terms of increasing infrastructural quality and using new methods.

Carlton expresses that the school administration fails to orient new instructors or teach pedagogical methods to professors. He states that “the School of Education is...entrusted with providing pedagogical training for the lecturers in various facilities” but neglects to accomplish this task.

In addition to education managers, ministry members hold a strong sense of elitism about university education, which creates a resistance to change. Government members “still believe that a Makerere instructor should just lecture and pass students through the system.” This adherence to old methods demonstrates a type of inertia, highlighting one of the barriers to AL. Carlton adds that government or administration fail to provide oversight, which, while giving the instructors freedom to experiment with different methods, provides limited support to instructors desiring to implement innovative methods. In fact, he admits that “the inspectors may not even know what is going on.”

Need to involve students in “doing.” Carlton advocates the need to involve students in “doing” rather than merely listening, where “the students...remain quiet when the lecturer speaks.” He argues that course materials require reworking because their abstract nature encourages the perpetuation of teacher-centered learning methods. Carlton associates “doing” with the creative economy, where students learn in a real company rather than within the confines of the classroom. He mentions that in Uganda, parents are beginning to realize the importance of a vocation; “parents take their child to a garage, a factory, a business, or a firm and ask their child what they want to be.” Due to the persistence of elitist attitudes associated with a university education, however,

parents still have that feeling that they will have done their children a lot of service if everybody in their family finishes their education at Makerere. They will deem themselves successful parents if they see all their children through Makerere University with degrees

The association of Makerere with elitism, yet another “ism” that keeps the university in mired in the past, prevents the school from implementing change.

Carlton reiterates the importance of practicality when discussing the curriculum; he argues that “the curriculum should include practical engagements.” As mentioned by other interviewees, however, the only practical experience that students receive involves school practice. However, Carlton maintains that even within this practical domain of education, problems still persist. He points out the existence of hypocrisy, which he terms “kind of a paradox,” when he illuminates that students “are supposed to use learner-centered methods for their own teaching, but university education is all lecture-centered.” Rather than focusing on lecture and memorization, Carlton suggests several different activities in which students can engage, including projects, model-building, debates and artistic performances, all of which support students in “doing” rather than passively listening. He indicates that these types of projects develop the soft skills mentioned in the interview, including critical thinking and deep conceptual understanding.

We have moved away from “lived experiences.” When discussing Indigenous education, Carlton maintains that Africans have moved away from “establishing the environment of ideas that governs the lived experience,” such as “voices from the crowd” rather than “books and the library.” He argues that Africans have lost touch with their history because their “physical lived experiences were imposed upon [them] by Europeans, so [they] are suffering a disconnection from our culture...education has done [them] an injustice by uprooting [them] from [their] lived experiences.” Carlton’s response echoes those of other interviewees, who mention that the curriculum teaches Ugandan children about western life. From this perspective, Carlton believes that education lacks a distinct connection to reality. Unfortunately, he also mentions the impossible nature of recreating this experience. Carlton states that “we cannot go back to [this state] because its memory and its relevance to the modern era has been lost.” However, he suggests that people “should limit negative attitudes towards local cultures, languages, habits, and customs” as a way of developing an appreciation for Indigenous culture.

Despite this seemingly bleak outlook, Carlton offers some hope. He maintains that although Africans lack the ability to completely recapture their Indigenous culture and the corresponding education methods, they “can retrieve some of the elements.” These elements focus mainly on the practical nature of learning, such as “how to grow a banana plantation.” In addition, Carlton refers to the holistic nature of Indigenous education by proffering that Indigenous peoples “planted everything, started a homestead, looked after babies, and knew how to locate the herbs.” Finally, Carlton mentions the sense of community that Indigenous peoples held and “the very ethical feeling of humanity” that permeated their education and society. Therefore, Carlton suggests that in order to restore Indigenous methods of education, Makerere can increase the extent of practical learning or learning by “doing,” provide holistic education that reinforces a sense of connection, and link the school to the community, thus breaking down the traditional walls of the university.

“Everybody can start from where they are.” When discussing the need to improve teaching and learning both in Makerere University and SSA, Carlton emphasizes that “everybody can start from where they are.” This phrase indicates that regardless of their position or function in the education system, anyone, including instructors, can take a leadership role in introducing AL. For their part, instructors could “engage the students more and avoid disengaging them” by using innovative, student-centered and practical methods. In addition, Carlton implies that teachers need to strive towards greater professional development, as mentioned earlier, by engaging “more with research and lived experience,” including community members with knowledge of their trades.

Moreover, Carlton emphasizes the required roles of other stakeholders, including ministry members, school administration, and the community. As previously mentioned, both government and Makerere administration need to overcome the elitist mentality and support instructors’ efforts to use innovative methods. Instructors need to involve members of the professional community in their efforts. These individuals can comprise experts of Indigenous trades, such as “herbalists and

elders” or even entrepreneurs. In particular, Carlton believes that entrepreneurs should serve as motivational guest speakers that “talk to students, hopefully motivating them to change their attitude, especially the arrogance of being a university graduate.” Carlton hopes that this strategy will result in “a change of mindset” that overcomes the elitist mentality preventing Makerere from changing their approach to education.

Classroom observations and analysis. Carlton engaged in team-teaching with another participant in this study, Patrick. Both instructors took turns serving as the main instructor and the facilitator in their respective classes. Based on this arrangement, the observations of both instructors focus on the class for which they were mainly responsible. For Carlton’s class, the physical arrangement of the classroom involved row seating, which seemed to impede discussion amongst students. Carlton’s class opened with him inviting students to begin their presentations. Based on the observations, it seemed that students had been instructed to create a topic, research their chosen topic, and perform critical analysis of the research. Once the students had prepared their material, they were to conduct a class presentation. Furthermore, Carlton explained that other students were required to listen to the presenters and participate in the discussion.

During the presentations, both Carlton and Patrick served as guides that supported and facilitated the students. When the presenting students required clarification or correction, Carlton intervened to answer questions or strengthen the students’ arguments. During the presentation, the group leader asked fellow students a question about Indigenous terminology. Since students were unable to answer this question, the students illustrated that people have lost touch with their culture. The student leader highlighted that while people of other nationalities learn in their native language and Africans learn in English, Ugandan education fails to support the native culture. The presentation generated a moderate amount of enthusiasm; while the presenters seemed engaged in their topic, the other students seemed disinterested, possibly due to a lack of prior knowledge.

Carlton seemed intent on establishing a positive rapport with the students. He used different gestures and varied his voice as well as employed different forms of questioning. For instance, when students asked questions or required clarification, he nodded his head. He used guiding questions or hints to help students strengthen their arguments or provide clarification. At times, he probed students by encouraging them to explore the topic in greater depth or used redirecting questions to focus the attention on the rest of the class, thereby facilitating the participation of the audience. In addition, Carlton used both low-level and high-level questions to students. In the lower-level questioning, he required students to simply answer “yes” or “no,” while the higher-level questions seemed to encourage deeper thinking. When students asked questions of their own, Carlton clarified questions in an understandable manner and seemed enthusiastic about receiving student questions, even contrary viewpoints. His timing seemed effective in responding to students and he sensed when students required reinforcement or correction and intervened appropriately.

Carlton used a variety of active learning strategies in facilitating his class. Although he incorporated some lecturing while giving instructions, summarizing the presentations, and elaborating upon the topic, he implemented interactive teaching through collaboration, presentations, debating, and storytelling, all of which engaged the students to some degree. However, Carlton may have considered utilizing technology, pending availability, and provide students with a greater range of options in their presentations. In order to increase student knowledge and engagement, he may have provided the non-presenting students with homework or reading to prepare them for presentation. Furthermore, he may have encouraged the presenters to make copies of their presentation to the students rather than simply the instructors.

Carlton used real-life or AL strategies with moderate effectiveness. He acted as a facilitator during the student presentations, allowing students to control the flow of material and intervening only when needed. The use of student presentations provided realistic learning by discussing actual

examples of cultural dislocation. When students raised contrary viewpoints, Carlton allowed their unique perspectives to coexist simultaneously. Similarly, Carlton facilitated collaborative learning and encouraged students to think in a critical manner through his use of questions. The student presentations, research, and handouts served as a tangible outcome of student learning and were delivered to an audience. However, Carlton may have increased the authenticity of student learning by allowing students to personalize the presentations and implementing a better transition between realistic student learning and standardized assessment.

In addition to implementing some AL strategies, Carlton shows some appreciation for IAE in his teaching methodology. First, he used practical and active approaches to learning through collaboration, student presentations, and debates, all of which allow the students to learn through “doing.” The concept of collaboration emphasizes the integration of community in learning, which is a major concept of Indigenous education. In addition, Carlton, in collaboration with Patrick, used the concept of storytelling, one of the major ways of Indigenous learning. By accepting multiple viewpoints, Carlton allowed students to contextualize the topic from their own backgrounds and perspectives. Finally, the strategy of team teaching, along with group collaboration, replicates the ideology of cooperation inherent in Indigenous African society.

Patrick

After obtaining his requisite education, Patrick began teaching in a part-time capacity. He received an invitation for a temporary assignment, which eventually grew into a permanent position: “I just got a part-time job, where I was given a course outline and then I went to class to teach.” Following his initial foray into teaching, Patrick “was available to bridge the gaps” for other instructors, which eventually “positioned [him] to land a part-time” job. While other interviewees entered the educational field as a secondary option, Patrick expresses his genuine love for teaching; he states that, “I am very enthusiastic about teaching; I always tell friends that I think I will never

quit teaching until I am old. I love it.” In addition to his teaching responsibilities at Makerere, Patrick engages in private practice and holds several administrative responsibilities. Throughout the interview, Patrick indicates that his work has provided him with a real understanding into the workings of the education system, which he describes as “a very big problem.” The remainder of the interview elaborates upon the aspects of the education system that Patrick considers problematic, beginning with the lack of orientation for new instructors.

“There is no serious orientation.” Patrick explains that Makerere fails to provide a proper orientation for their instructors, as he was merely handed a syllabus and told to teach, after which he states that school administration expects that “you can forge your own way.” Patrick describes that the process of teaching on his own was “a terrible experience; [he] had no clue of how to teach.” He explains that despite the ability to rely on his previous experiences and ask colleagues for advice, the lack of orientation made Patrick feel “nervous,” resulting in the need to fake knowledge and confidence; he recounts that he “was putting on a façade” to his class of students. This anecdote, which corresponds very closely to those recounted by other participants, suggests the need for a proper system of instructor orientation at Makerere.

Due to the negative consequences resulting from poor orientation practices, Patrick asserts that Makerere requires a formal orientation process for new instructors: “people need this kind of orientation to know these kinds of things.” However, he states that although the school’s administration has proposed some programs, they have failed to implement anything concrete. The main reason behind the lack of an instructor training program results from “the assumption...that they are recruiting people who have done education and are already teachers, so they know already what to do.” Furthermore, Patrick mentions that Makerere should improve recruitment processes to target teachers with a genuine love of the profession. Like other interviewees, he hints that some

teachers suffer from a sense of inertia, which impedes their ability to improve their practice: “some people here are not here because they want to be; it is because they have been appointed.”

Teaching “creates a kind of friendship.” Unlike other interviewees, who highlighted the impersonal nature of student-teacher relationships, Patrick maintains that teaching “creates a kind of friendship” between the instructor and students, where “some students even call [him] by [his] first name.” He explains that when he used teacher-centered methods, this “old model involved some type of detachment between the teacher and student; the professor stood somewhere at the front and then the students would be a distance from the instructor.” As a result of this physical distance, along with the use of corporal punishment mentioned in a subsequent section, professors lacked the ability to form personal connections with students.

In contrast, Patrick asserts that his use of interactive, student-centered methods promotes friendships with students as well as his ability to collaborate with other instructors. In fact, Patrick currently team teaches with another instructor, which “has allowed [them] to implement the authentic learning methodology in all [their] courses.” The collaboration between the two instructors underlines the importance of networking in AL. When Patrick involves the students in the assessment of their presentation materials, he “acknowledge[s] the way they have done well in order to enhance [his] connection with them.” For example, he “may tell a student that they are a very good speaker” as a way of building their confidence and helping them to establish an identity as a student. As a result of his efforts to include students in AL, he develops a rapport with his students, resulting in their initiative to contact him outside of class. For instance, he recounts how students will wave at him on campus, and, as previously mentioned, address him by his first name.

Another way that student-centered teaching methods solidify his connection with students occurs through his invitation for students to tell him stories. For instance, he encourages students to

tell anecdotes from their own school experiences, which represents a change from the past, where instructors told students about examples from their lives. Patrick elaborates that his students provide as many illustrations as possible from their own school experiences. They retell these examples, and some of these instances are so fresh. We see everybody connecting, and they have so many stories. We want them to tell us as many stories as they can. I think this practice links more directly to the world.

This method of sharing stories not only enhances the connection among students but also between students and the professor as well as among the professors, as in the example of team teaching.

Also, this storytelling exercise re-orientes the focus from the instructor to the student and allows the students to relate to their world.

Lecture-centered methods have “killed” students. Similar to other interviewees, Patrick reports that most Makerere instructors still use lecture-centered methods. He argues that teacher-centered approaches to education, which include lecturing, copying, memorization, and cramming, has “killed” students. In particular, he deems his teaching most unsuccessful when he feels rushed to present his material, forcing him to provide lectures and notes to students. He elaborates that, “I used to do a lot of dictation just like everyone else...the students write down a few paragraphs and then you give some explanation...but it is a mess.” The “mess” that Patrick refers to involves the complete disconnection between the lecturer and the student as well as between the student and the real world. During these times, he states, “I don’t feel that learning has taken place.”

Furthermore, he explains that teacher-centered methods, which originated in the “industrial paradigm,” fail to correspond to the real world, which encourages entrepreneurial aspirations:

we got stuck in the industrial paradigm, the industrial era, where schools produced for industries or factories, so learning had to be systematic and orderly, prescribed, everything

to the dot. Now, everything has changed, and now that we are living in the entrepreneurial world, we are lost.

Similar to other interviewees, Patrick acknowledges that these methods, which recall an older period of history, have thus become outdated. Also, the sense of being “lost” implicates a large gap between the world inside of the university and the society outside of academia.

“We do not understand what education is.” In addition to arguing that lecture-centered methods impede students’ learning, Patrick maintains that these methods harm the relationship between the instructor and student. Specifically, he asserts that these approaches create a detachment between the student and teacher, which, as indicated previously, occurs from the physical separation between the instructor’s positioning at the head of the room and the students’ distance from the professor. Furthermore, Patrick comments on the problem of corporal punishment, which he has witnessed at primary and secondary schools. When referring to this use of corporal punishment, Patrick argues that “we got it wrong; we do not understand what education is.” Patrick maintains that rather than punishing students, teachers need to discover the problems hindering students from the learning process and address those issues in a helpful manner. The problems of administering corporal punishment and creating distance from students results from a lack of knowledge, the main barrier to AL that Patrick emphasizes throughout the interview.

“I teach practical courses that connect to the real world.” Although Patrick previously used lecture-centered methods, he now provides practical learning activities for his students. Most notably, he uses collaborative learning by arranging students into groups and organizing a presentation on a topic. Patrick describes this process:

student leaders will organize [students] in different groups, and they share assignments. The students will organize it in such a way that before they do a presentation, they need to come

in here and meet with us. Then, we will look at their work and give them advice where possible and share materials.

The organization of students into groups contrasts starkly with the physical distancing described in earlier sections. During this collaborative learning process, students consult with the instructor and obtain feedback prior to presenting their material to the class. In this way, the instructor acts as a facilitator rather than a lecturer, providing students with control over their own learning.

Not only do students benefit from student-centered methods, but, as Patrick attests, “students love them.” Patrick explains that his “practical courses” encourage students to pay attention, especially since they lack the need to take notes. Furthermore, Patrick emphasizes the importance of implementing a trial and error process rather than forcing students to comply with a structured system of learning. He argues that “people have to be given a chance to explore, to guess, to make mistakes,” a procedure that resembles the constant invention of new practices in the entrepreneurial market rather than the rigid methods by which instructors train students.

In addition to its realistic processes, AL teaches students practical skills, which Patrick describes as “inventing new practices, manipulating, dealing with different issues, and working with many people.” While “inventing new practices” corresponds to innovation, “manipulating” relates to critical thinking, and finally, “working with many people,” especially ones from different backgrounds, aligns with collaboration. In fact, Patrick elaborates that AL has resulted in the students “improving their problem-solving skills, effective communication, networking abilities and forming collaborations within and outside the classroom.” These abilities not only correspond to the essential and transferrable soft skills that employers seek from graduates but they also relate teaching to the real world, thus signifying that AL has taken place.

Makerere “shifting” to interactive methods. Despite his account that most instructors still use the lecture method, Patrick offers some hope for the future by reporting that many instructors,

both at Makerere and in other universities, are “shifting from traditional methods of teaching to more interactive methods.” In fact, he mentions that he and one of his colleagues influenced another instructor to change from the lecture method to more interactive approaches. Patrick states that “she used to use the traditional methods, but...since then, she seemed to learn from it, and she has taken her teaching to a much higher level,” which includes the use of an online-based learning system and student-led collaborative learning. This account provides some hope for continual change.

As mentioned, Patrick argues that interactive methods relate to real life and to the practical skill of working with people. Patrick’s use of interactive methods relates to the real world, and he explains that his students love these methods. During this collaborative learning, Patrick attempts to deemphasize the importance of marks, which Patrick, in agreement with other instructors, views students as being overly concerned with. He states that, “I usually tell them at the start what is more important: understanding what is taught and then applying it in [their] practices...it is not about getting an A and then failing to perform in the real world.” Thus, in his use of interactive methods, Patrick strives to connect students to the practical aspects of their future profession.

Despite the advantages of AL, Patrick suggests some limitations posed by these methods. First, he argues that some students fail to appreciate these methods, especially since they are accustomed to teacher-centered learning: “they have been taught in traditional ways through primary and secondary, so suddenly they are told to learn by themselves,” which causes confusion, as students lack experience with AL. Similarly, AL lacks continuity with the assessment methods, which involves standardized testing, as well as with other courses, which use the lecture method. As a result, “students will ask...why [instructors] are giving them an exam after having learned through a conversation.” This lack of continuity also occurs on a year-to-year basis, during which time, “students come and ask [Patrick] why the other instructors do not teach them the way that [Patrick] used to teach them. It hurts to hear this.” Finally, the large class sizes, which were once as

large as 1076 students with seating for only 400, detract from the efforts to implement this learning style, which results in a reluctance of some students to participate. Patrick states that, “for some students, it even creates laziness, where they do not want to work with others in groups yet they want their names attached to the work,” a sentiment expressed by other interviewees.

“The methods here are dynamic.” Along with the fact that Makerere instructors have been changing from traditional to interactive methods, the overall climate in Uganda and SSA is one of change. The Ugandan universities lack consistency with one another, as they “are not all moving at the same pace.” Patrick elaborates that “there are so-called very good schools here in town that are still using the traditional methods. There are some schools in the country that are changing.” As a result of the overall flux that characterizes the educational climate, “students are also at a type of crossroads; they do not know what to do. [Instructors] are trying to prepare them for that changing world, and they themselves are becoming change agents in their own ways.” The student confusion that results from the discrepancies among different teaching approaches as well as between education and the workforce represents one of the negative aspects that accompanies this change.

Teaching successful when “students do something better.” Patrick considers his teaching successful when “students do something better than [he] would have done.” In particular, he refers to instances when students present their topic so effectively that he can refrain from commenting, hence invoking the role of the facilitator, which comprises an important component of AL. Patrick also mentions his desire for students to control the class, thus implicating the occurrence of student-centered learning or AL. Moreover, Patrick enjoys witnessing student improvement. The successful nature of his teaching enhances his love for the profession, stating that “it is so rewarding to see students’ progress.” Patrick’s genuine passion for teaching results from not only the meaningful connection that he shares with students, as mentioned earlier, but also from the results of his teaching. In fact, his friendship with students and the students’ love for his interactive teaching

methods, mentioned earlier, provides evidence of his passion for teaching. In fact, Patrick wants to see his students “get to do something they love.” By praising students for their unique talents, Patrick not only encourages his students’ career aspirations but also their love of learning.

Concept of multiple intelligences. Patrick discusses the concept of multiple intelligences and the way he implements this theory into his teaching practices. Early in the interview, Patrick expresses his opposition to the teacher-centered method of memorizing and cramming. He declares that “if you are a good crammer, you will succeed in this system. However, not everybody is good at cramming; we are all gifted differently. If you do not have the ability to cram, then you will be in trouble.” The revelation that “we are all gifted differently” indicates that the use of outdated methods impedes students’ ability to learn the material effectively. In addition, the standardized testing system at Makerere fails to truly measure a students’ abilities:

At the end of the day, we may examine someone and say they have failed despite the fact that in reality, they have learnt leadership skills; they were leading others during the discussion. By telling students that they did not pass the paper, we are, in a sense, miscommunicating with them and there is a disconnect.

This “disconnect” between students’ test results and their true abilities also illustrates a “disconnect” between traditional learning methods and the real world.

During the interview, Patrick explicitly mentions Howard Gardner, the pioneer of the idea behind multiple intelligences, the man that proposed “how a teacher can reach everyone’s talents.” Specifically, Patrick’s knowledge of multiple intelligences influenced his decision to let his students present in their own format, including “a talk show, a lecture, a debate, or anything else,” thus catering to their personal strengths. When discussing AL, as seen in the subsequent section, Patrick mentions that AL incorporates multiple intelligences by adapting the instruction to students’ ideal learning styles and allowing students to demonstrate their knowledge in this way.

AL “empowers” students. When describing his understanding of AL, Patrick relays that this method “empowers students and involves them in the construction of knowledge, which is even there out in the world.” This process of knowledge construction helps students to contextualize their knowledge in real-world applications for problem solving. In particular, Patrick mentions that he, along with the other instructors using AL, do “not prescribe what to do, but give the students frameworks that will guide their practice.” By allowing students to have control over their own learning, Patrick acknowledges that AL provides students with a sense of power. During his collaborative learning exercises, which “started with small groups... [and] is filtering down to the undergraduate students,” he emphasizes the importance of a facilitator rather than an instructor role: “I am not always in the driver’s seat; I am always a passenger, and I am always seated somewhere at the side of the room.” Even the physical placement of students relative to each other and to the instructor supports Patrick’s role as a facilitator and the students’ corresponding ability to run the class and control their own learning.

Although teaching methods at Makerere have begun transitioning towards more student-centered methods, Patrick states that instructors’ knowledge of AL can still undergo more improvement, as elaborated in the subsequent section. In particular, he suggests that instructors can share their knowledge with one another, read, participate in groundbreaking research, and change their mindset. He illuminates that “we should attempt as much as possible to create moments of exposure and then share information.” Similar to the way in which Patrick encourages his students to share stories about their educational experience, he advocates for colleagues to exchange information and research about AL. These “moments of exposure” entail “more and more projects...research to find out more information and relate that information to what happens in the field.” In concurrence with other interviewees, Patrick states that instructors gain knowledge more readily from outside of the Makerere or the SSA environment than from within the local institution.

Mental obstacles greater than physical barriers. Patrick agrees with some of the interviewees that philosophical resistance to implementing new methods represents the greatest barrier preventing AL. He elaborates on the mental obstacles, such as attitude and philosophy, that prevent instructors from changing their methodologies. First, Patrick argues that many instructors lack a genuine love of the profession: “some staff may think that because they have a first-class degree, they are automatically a good teacher.” Referring to the philosophical barrier, he states, “it is all about changing their mindset, so we need to find more ways that change the mindset.” When discussing the process of changing from traditional, lecture-centered methods to AL, he states that although younger teachers have been changing their teaching approaches, “older teachers seem to adapt more slowly,” especially because it is more difficult to acquire “these methods in the middle of [their] career.” Patrick maintains that AL requires an entire cultural shift within the university: “it needs to become a way of life; it needs to become the culture in all learning institutions.”

In addition to a cultural shift, Patrick mentions that instructors need to acquire more knowledge of AL. He lists the most predominant barrier to AL as being “a lack of knowledge, a lack of information.” This knowledge begins with a historical exploration of various paradigms along with “how these methods of teaching are implemented and then [the ability to] criticize them.” While mentioning that some teachers have begun shifting towards AL methodologies, he comments that “exposure is the key. Those that have the exposure seem to be doing much better.” In fact, Patrick agrees with his colleagues concerning the poignant effect of experience on current teaching methods. He asserts that “we normally use our experiences to guide our teaching. I have seen staff that I have trained in other universities... These instructors are more adept at implementing such methods than those that I have trained here.” On the other hand, Patrick disagrees with the idea that the lack of material resources represents a major obstacle. He argues

that although the lack of resources “interferes” with the ability to transition methods from teacher-centered to student-centered, the first step starts with both attitude and knowledge.

Some support from administration and government. While Patrick concurs with the other interviewees about the lack of orientation and training, unlike other participants, Patrick maintains that instructors receive some degree of support from educational managers and policymakers. For instance, he states that they provide instructors with the freedom to implement their own teaching methods; Patrick maintains that, “they do not restrict us from what we are supposed to do or how we are supposed to teach.” As a result of this “enabling” environment, Patrick insists that “I can change my teaching, so there is a lot of liberty to change.” Patrick’s declaration that administration allows teachers to govern their own methodologies demonstrates consistency with all of the other interviewees.

However, in contrast with other participants, Patrick mentions that managers provide support beyond simply providing instructors with freedom. He explains that

we receive internal workshops...recently, I attended a workshop... [where] there were staff attending from all schools in the university. Some of the sessions focused on thinking of better ways of working with our students. I also attended another conference [in a local area]...and another conference somewhere else.

In addition to these learning opportunities, Patrick reports that the university allows him to take “studies abroad...on a scholarship,” where the university “pays [his] salary.” The workshops and funding that administration provide their instructors provides evidence that they do, in fact, give some teaching support, which seems to contradict the opinions expressed by other participants.

Combination of Indigenous and western knowledge. When discussing the implementation of Indigenous knowledge into the curriculum, Patrick maintains that most people have lost touch with their cultural roots. He reveals that when attending a conference, he wondered

How can we know what the African way is? Can you tell us about the African way? Can you tell us about the elements of indigenous knowledge? To me, that was a shock, because we do not know a lot about indigenous knowledge.

Once again, Patrick emphasizes the common theme of missing knowledge; however, rather than referring to a group of instructors, he alludes to an entire society. He elaborates that “western influence...has concealed our indigenous knowledge.” Consequently, Patrick acknowledges that instructors need to improve their knowledge of Indigenous methods by learning more about the methodology and ways of incorporating it into instruction. Patrick offers hope by revealing that “we...teach African Indigenous philosophy at the master’s level. It is only this year that we have used aspects of African Indigenous philosophy,” thus representing encouragement for the future.

Although Patrick extensively critiques the scientific or “industrial” approach to education, he also dismisses some aspects of Indigenous methodology: “sometimes we are pre-scientific; there is witchcraft at schools.” Consequently, Patrick suggests that the ideal solution may involve a combination of Indigenous knowledge with western philosophy: “maybe the philosophy of education can be half-indigenous and half-western.” This strategy will allow students to connect theory to practice because “in Africa, there is no way you would distinguish between practice and theory,” hence underlining the holistic nature of Indigenous education. In addition, Indigenous African knowledge and the corresponding pedagogy “focuses at responding to real issues in society,” thus linking this methodology to the real world.

“Let the business people inform education.” When discussing the ways in which teaching and learning can undergo improvement in SSA, Patrick continually highlights the necessity of a connection between the school and the labour market. Patrick confesses that to this point, “we have kept [industry] out of the system...we have kept them out of the loop.” The separation between education and the labour market underlies one of the major problems surrounding SSA education.

He mentions that although the teaching methods at Makerere and SSA are in flux, “there are still many issues to sort out with regards to how they support the labor market.” Similar to the previous interviewee, Patrick uses the imagery of walls to describe the barriers between the university and community, insisting that such walls must undergo removal to ensure a greater linkage between the two environments. He states that currently,

we tend to make a clear distinction between us and them, like we exist in some kind of ivory tower, which I think misses the point. Some people want us to open the doors or link the walls to the community and invite them in.

Accordingly, his most unique contribution in this aspect involves his insistence on allowing industry to influence educational practices. Specifically, he argues that the governments and individual universities should ask professionals about their expectations for graduates, which would enable instructors to adapt new practices. “If we bring them on board, then they will tell us which kind of graduate they expect.” He hopes that “that type of feedback will allow us to reform our practices here.” Along the same lines, he suggests that curriculum makers should redesign the education program to add an entire year of school practice for student teachers, thus allowing them to gain more practical experience: “maybe there should be a whole year of teaching practice for the students.” The additional time will allow “students really get to know what is supposed to be done, so when they graduate, they are prepared.” The idea of preparing students for the labour market represents one major way of improving education.

Classroom observations and analysis. Patrick’s class had been delayed by the previous class, whose students took longer than the prescribed time limit to write their tests. By the time the students settled into the classroom, it was 12:22 p.m. These circumstances left Patrick with the responsibility of efficiently rearranging his time to accommodate the new situation. Patrick began the class by dividing the students into groups and assigning them topics to research, discuss, and

present to the rest of the class. In each group, the students had appointed a moderator to facilitate the debate. The moderator led the discussion by presenting the information that the group had researched and collected. The group members supported the moderator by elaborating, adding, or debating information. This format created order in the class because only one student spoke at any time. The students successfully stimulated debate amongst themselves and the rest of the students.

During the student presentations, Patrick acted as a facilitator and guided the students. He allowed the student presenters to control the discussion and intervened only to stimulate the debate or provide summary and clarification. After the debate, Patrick provided concluding remarks that attempted to harmonize the student positions. In addition, Patrick, along with his colleague, told stories to students to provide practical illustrations of the topic. The students seemed lively and engaged during the presentations, debates, and storytelling. They expressed enthusiasm while presenting their topic, and the class audience seemed engaged in listening to and interacting with the presenters. As a result, a lively class debate emerged among the presenters and the audience.

Patrick used a variety of interactive teaching strategies, including collaboration, debate, and storytelling. The idea of using a debate seemed extremely appropriate given the subject matter. In fact, the content of the presentations themselves, reflected the form in which the class was taught. During the collaborative group work, Patrick and Carlton walked around the room continuously to consult with students, making comments, answering questions, and clarifying points. Patrick projected a relaxed tone, excellent eye contact, and varied voice modulations to project empathy. When questioning students, he used clarifying and guiding questions to help students explore their ideas further. In addition, he used probing questions to encourage critical thinking and redirecting questions when students provided wrong answers. Patrick received student questions enthusiastically and prompted students further to consider the answers to their queries.

Overall, Patrick used teaching methods that coincided strongly with real-life learning or AL. First, he acted as a facilitator that provided guidance and support to students working in both collaborative groups and debate presentations. By acting as a facilitator, Patrick established a strong rapport with his students, especially since he encouraged his students to perceive him as a collegial equal rather than a boss or dictator. Secondly, Patrick made extensive use of different active learning strategies that connected students to the real world. The presentations and debate allowed students to learn through doing, while group work reinforced collaboration. The student learning had a tangible outcome in the form of research and presentations, while the presentations and debates shared the learning with an audience. Patrick also tied student learning to another form of student-centered learning, personalized learning, by allowing the students to customize their presentations. In fact, the students imitated Patrick's use of AL by facilitating the debates with moderators and using interactive learning to engage the class. Finally, Patrick incorporated the idea of expert consultation by meeting with students during their planning.

In addition to AL, Patrick also implemented elements of IAE. First, the aspect of student collaboration and team teaching reflected the aspect of communal learning and cooperation inherent in Indigenous education. Furthermore, he embraced the paradigm of learning through activities such as group work, presentations, debates, and story sharing. In fact, the aspect of storytelling represented a major mode of learning in Indigenous society. Moreover, Patrick ensured that the information brought up during the presentations allowed students to understand the concept from their own perspective, and he allowed multiple notions of reality to exist simultaneously. This way of teaching embraces Indigenous learning by relating the material to students' own lives and communities. Finally, Patrick taught through the Indigenous modes observation and imitation, as students listening to the presentation observed and mimicked when their turn to present arose.

Steven

The final interviewee, Steven, lectures at the College of Education and instructs courses in another department. Along with his teaching responsibilities, Steven holds several administrative positions within and outside of the university. Steven's administrative roles necessitate continual professional upgrading; he takes "some part-time classes in other universities" to improve his knowledge. Finally, Steven supervises varying numbers of undergraduate and graduate students.

Convolutd road to teaching. Steven's interview responses show that his path to the teaching profession involved a long road with many obstacles and changes in direction. Like a few of the other professors, he confesses that "at first, [he] was not interested in teaching," as he had obtained a degree in another field. Although he initially worked in another industry, Steven found that "the money is not there" and decided to apply for a teaching position "because the schools had run short of teachers." After teaching in the public-school system, he realized the need to apply for a postgraduate diploma in education (PED). When the university rejected his first application and shortlisted him the second time, Steven negotiated with the administration. He explains:

since I had been doing different things for the last several years, they refused me. When I told them that I have been teaching in a school, they asked me to go back to school and bring evidence that I had been teaching.

After obtaining the requisite letter, Steven's persistence eventually yielded results, as he obtained acceptance into the PED program. Upon graduation from the program, he encountered a similar struggle in order to obtain a teaching position, as he needed to persuade a department head that he "could fulfill the role," resulting in his eventual hiring. By the end of this time, Steven had progressed from someone "not interested in teaching" to someone that "love[s] teaching." In fact, he concludes this narrative journey by stating that, "I am what I am because of education."

“A way of orientation.” In contrast to most respondents, Steven asserts that although he lacked an official or formal training program upon his initiation at Makerere, he had the opportunity to teach alongside another instructor. He explains that, “I was working along with the other lecturer, who was teaching his class, so that I can see how to stand in front of students, set questions and mark. This was a way of orientation.” Unlike other interviewees, who lacked this type of on-the-job-training, Steven gained crucial support from other professors. He mentioned that although none of the staff or administration provided him with formal training, he received “the support of those who were there,” thus providing some evidence of administrative support at Makerere. In addition, Steven’s prior employment as a public-school teacher provided him with the practical teaching experience that most education graduates lacked. In fact, Steven points to the education program as a source of preparation, where student teachers “tried as much as possible to emulate how the other teacher was teaching” as well as even his high school teachers, who provided inspiration for him. Steven’s mentioning of the education program as a legitimate source of preparation, along with his revelation of other helpful resources, perhaps suggests that in spite of the absence of formal orientation, instructors have ample opportunity to prepare themselves for their teaching careers.

“Not everybody...is a teacher.” Although Steven seems unfazed by the lack of orientation for new recruits, he concurs that Makerere likely needs such a program. Steven explains that we had designed a program along those lines, but that program experienced competition because another school also wanted to implement it. We failed to implement it; however, we are aware it is there, and in some places, we have been invited to go and give these pedagogical lectures.

Steven’s assertion that Makerere had planned an orientation program corresponds to the responses given by other participants, who similarly maintained that Makerere had considered or discussed training for new instructors. Makerere’s commitment to training, reflected in its provision of

educational lectures, shows that although the university has good intentions, its administrative or bureaucratic structure may have impeded progress. Along the same lines, Steven mentions that he used to belong to a training team that taught methodologies and assessment to instructors inside of Makerere and elsewhere. Steven's participation in such a group, along with his extensive discussion of training programs, attests to his belief in the importance of training.

Moreover, Steven emphasizes the need for such a program when he states that "not everybody in that university is a teacher, but they are teaching, so those people need a course in pedagogy." Stephen's statement may imply that some instructors lack the natural talent or drive to teach; alternatively, it may suggest that some instructors lack the practical teaching experience that Steven possesses. In particular, he believes that instructors should learn "theories of learning, approaches of teaching, learning strategies, and assessment approaches." Additionally, he mentions that the College of Education involves external stakeholders in workshops; he states that when "we are trying to come up with the curriculum, we try to involve the stakeholders to determine what is missing." The initiative to involve outside parties in curriculum planning represents positive strides in the direction of collaboration amongst stakeholders, which Steven later mentions as a weak point.

"I love my job." Despite the initial obstacles that he faces, as documented above, Steven continually highlights his love of teaching: "I love my lessons and I love teaching; I like my students...I love my job." When referring specifically to his students, Steven remarks that, "I like my students...and they like me; I have never had any serious issues with students." The repeated use of "like" and "love" clearly emphasizes Steven's passion for all aspects of education.

Steven explains that he experiences a sense of success from his teaching when his students return for postgraduate studies in education or he learns of his students "somewhere else in the country." He elaborates that "for me, there is no corner of this country I will go without finding my former student. Everywhere, they will ask me if I remember them from teaching them several years

ago. This is an achievement.” By seeing the success that his students have achieved in the real world, Steven feels a sense of accomplishment. In fact, he feels honored that “some of [the instructors] are called mentors.” The word “mentor,” which resembles the facilitator role in the AL paradigm, suggests the possibility that Steven’s former students viewed him as a type of mentor and hence he may have used some aspects of AL. When mentioning people that he influenced to follow an education career, Steven proudly asserts, “I have taught and I have made my students.”

“We had to do everything.” Despite his genuine passion for teaching, Steven emphasizes the heavy workload of Makerere professors. In addition to enumerating his multiple roles and responsibilities, Steven mentions that he faces time and resource limitations in his position. He states that at one time, he and another professor were solely responsible for most students:

We had large numbers of students; for example, we have 5 groups of students and each group had about 300 students. So, each of us was responsible for about 800-1000 students without any help. We were teaching and marking. That’s the challenge of space.

The situation that Steven describes echoes some of the scenarios given by other interviewees, reflecting not only the heavy workload of instructors but also the severe resource shortages that pose a challenge to the implementation of AL.

Steven elaborates about the lack of teaching assistants and essential resources in the department. He states that “we had to do the teaching, the marking, and the assessment. We had to do everything.” In addition to the strict timelines posed by large numbers of students, these vast student bodies contributed to infrastructural challenges. For example, “the large numbers of students require the infrastructural support, such as the public-address system. Without the PA system, you are shouting all the time.” The massive student numbers, in conjunction with resource limitations and infrastructural challenges, resulted in the perpetuation of teacher-centered methods at Makerere. In particular, the lack of reading material meant that the instructors “were using

traditional approaches...even if you gave an assignment and you provided reference lists, these lists are not available in the library, so it was teacher-centered all the time.” In sum, all of these factors “made for a terrible experience” for Steven, and likely, for the other instructors as well. Although the situation at Makerere has witnessed some improvement in reduced student numbers and increased staff support, some gaps still remain, including the lack of tutorial assistants or markers.

“There is a problem with our structure.” Throughout the interview, Steven alludes to various problems within the administrative organization of the university. Along with the resource limitations, Steven suggests that the university administration is currently experiencing a transition period. In one part of the interview, he states that “the admissions are held at different offices,” while in another section, he mentions that College of Education departments are constantly expanding so that currently, “these older departments were merged into one,” which overloads instructors with both administrative and academic work. While the administrative changes within Makerere may entail short-term complications, the idea of administrative change contrasts with the respondents by other participants that claimed Makerere remained static.

In addition to the administrative issues and resource limitations that Steven and other professors discuss, Steven mentions other issues that impede his ability to teach successfully. He states that sometimes, “certain conditions prevented me from teaching in the way that I wanted to teach.” These conditions include social activities within the school and outside environment, labour stoppages with the university, and student demands, which can include requests for mark changes. As in the case of bureaucratic obstacles, Steven refers to these circumstances as “complicated.” The interview provided a general impression of Steven’s feelings when situations thwart his plans, as summarized in the following statement: “there are frustrations that come when you have planned for a certain thing and it does not happen.” While some of these issues constitute material shortages and infrastructural challenges, other frustrations entail bureaucratic issues from within Makerere.

“Our strategies...are affected by the facilities.” In concurrence with his admission of the resource, infrastructural, and administrative limitations, Steven asserts that professors’ choice of pedagogical methods are restricted by these barriers. First, he expresses his realization that “we are supposed to teach our students hands-on; we are aware that we are supposed to involve our students directly in our lessons.” Although he expresses his knowledge and desires to use AL methodologies, he concedes that “we don’t always have the facilities or time to do so.” In particular, he pinpoints large numbers of students as impeding the efforts to use collaborative learning, which echoes the sentiments of a few other interviewees. Steven inquires, “with the numbers of students, how do you have space for everyone?...where they are supposed to go?” Consequently, Steven confesses that “we used the direct method because of the large numbers. We still use this method.” This admission demonstrates that although the large class numbers have been somewhat reduced, the tendency to remain static and the philosophical resistance to change, highlighted throughout the interview, results in the fact that Makerere instructors still use teacher-centered methods, thus suggesting that resource limitations do not tell the whole story.

Steven reiterates the theme of resource limitations when discussing the pedagogical freedom of instructors. He states that instructors “have the freedom, but they do not have the resources to use.” The lack of resources leads to an internal conflict regarding instructors’ methodological choices, which Steven succinctly summarizes:

they may ask themselves whether they can use certain pedagogies and if they have prepared adequately. As a result, sometimes, they may choose the method that is quick to use so that they get time to go and do other things.

In this instance, Steven suggests that as a result of resource and time limitations, many professors choose to revert to traditional, teacher-centered methods. Among the infrastructural issues, Steven mentions the following:

we talked of using the public-address system; if they do not have money to buy it, we remain stuck. We cannot talk of using a computer and we do not have projectors. We do not have the soft boards. If the resources are there, they have gotten spoilt and nobody repairs them.

He also points to administrative issues, such as strikes, as an impediment that limits instructors' time: "if we have been on strike, for example, and we come with only 4 weeks to finish everything, what do we do?" The limitations posed by administrative, infrastructural, and time thus represent major barriers to AL.

"Changing traditional things is sometimes not easy." In addition to mentioning the barriers represented by limited infrastructures and resources, Steven hints at the philosophical difficulties of overcoming tradition and changing major systems. When asked about the possibility of restructuring the education program to add an extra year, Steven states, "we are in a traditional system and changing traditional things is sometimes not easy." In particular, Steven explains the challenges of influencing major stakeholders, such as the government and taxpayers, to fund an extra year of the program: "extending the program has financial implications. If it has always taken place over three years, how are you are going to convince the public and ministry?" This question points back to the issue of facilities and resources, which may, in fact, contribute to the perpetuation of a static mindset among government and administration. In order to overcome this barrier of relying on tradition, Steven suggests that, "we the instructors need to drive ourselves out of our own comfort zones that we have for years operated in" by "starting from somewhere to embrace authentic learning." One of these suggested approaches includes the concept of team teaching, which can compensate for resource limitations and other infrastructural obstacles.

Interactive and practical methods. While Steven acknowledges that the teacher-centered method has constituted the traditional way of teaching and still continues as the "dominant"

pedagogy at Makerere, he concedes that “now, we have other methods that are interactive, where our students are involved in activities.” Notably, many of the interviewees, along with Steven, use the term “interactive” to refer to student-centered learning. Aligning with the accounts of other participants, Steven cites the main example of AL as constituting group presentations; however, he also mentions “role play” as an alternative method that he uses to engage the students. In addition to these “interactive” methods, Steven explains that “we also emphasize the practical aspects with the students, such as going into the field, sitting with them, showing them, and discussing things.” The emphasis on “practical” learning aligns interactive methods with the realistic aspect of AL.

Along with using interactive and practical methods in the classroom, Steven explains that he implements a holistic approach to school practice. He states that

they do not only go to teach but they are supposed to be involved in all activities of the school, including a bit of administration, supervision of students in various activities, and sports, because that is what school life entails.

This holistic method of integrating students into the whole life of the school rather than merely the classroom provides the students with functional knowledge of their jobs. Steven mentions that he uses a similar approach in his courses, which provides students with “real hands-on experience.” Finally, Steven connects his students to the community, an important aspect of AL, by “providing community business support services” such as training needs assessments and designing training programs, which allows students to broaden their horizons beyond the sole focus on education.

“Our students do not have the skills.” Despite his use of interactive methods, Steven suggests that the “circumstances” at the university prevent him, along with other instructors, from providing students with the needed 21st century skills, which include “communication, collaboration, problem-solving, [and] innovation.” Consequently, he concludes that “there is still a significant mismatch between how we teach and what employers need in terms of skills expected of

graduates to join the labour market” as “the lecture method...doesn’t necessarily translate into real-life skills needed within the creative economy.” Steven points out the gap between the theory taught at the university and the skills required by the labour market. He explains that in the classroom, teachers provide the students with an abstract understanding of the concepts required to teach: “we give them the theories, knowledge, and skills in words,” which includes “psychology, sociology, preparation of the curriculum, and methods of educational planning.”

However, he realizes the deficiencies of teaching students solely theoretical issues when he states that “there are people that have been thinking that our students do not have skills.” Although Steven neglects to identify the “people” to whom he refers, one can infer that these people are employers and entrepreneurs. Steven suggests that while students possess the knowledge, they may lack the practical skills to apply such understanding. He hints at this deficit when asking: “we know that the students have knowledge, but how do we motivate and encourage the students to develop their inner learning?” As a result of this perceived skills deficit, Steven mentions that the university has recently added an internship program, which ideally allows students “to get the practice and see how [they] can put the skill into practice.” While education students receive practical training in the form of school practice, they actually do not begin their practice until “the second year... the second semester,” which signifies a potential problem with the lack of connection between the theory learned in the first year-and-a-half and the school practice in the second and third years.

Indigenous forms of learning. When asked about IAE, Steven maintains that this type of learning “was more practical because students were engaged in their own learning.” In particular, he asserts that with Indigenous methods of education “students can use that knowledge to solve their problems.” Based on this appraisal of such learning approaches, Steven agrees that Indigenous learning should experience a revival of sorts. However, similar to other participants, he concurs that certain problems exist surrounding the use of this method in today’s universities. Specifically, he

points to colonization as an influencing factor, which he terms “the so-called western influence that came in and eroded our minds.” Similar to the case of instructors that retain their methods, Steven cites the philosophical resistance to change and insistence on continuing tradition as a legitimate obstacle to using Indigenous knowledge: “people are now moving in the other direction, so anything that is traditional, people see as fake, as something that is conservative or primitive. They would rather go with modern influences than traditional ones.” Hence, one of the barriers preventing the implementation of both AL and IAE constitutes the resistance to change.

In order to overcome the challenges posed by resource limitations and mental inertia, Steven suggests “a lot of research, so that people can see the basics and understand.” In other words, Steven believes that people require proof or evidence in order to begin considering change. Despite this promise of improvement, Steven retains an undercurrent of pessimism in cautioning that few professors have knowledge or interest in the Indigenous methods. He states,

I am not sure that we have people who are in that field, because people are researching in modern fields. Nobody is researching the past. Everybody is thinking of moving the world...they are preparing for the next century; they are not preparing for the present or the past.

Steven’s pessimism towards the possibility of reviving Indigenous methods nevertheless contains optimism about the use of contemporary methods, as his emphasis on the future seems promising for the potential of new teaching approaches, such as AL. He believes that “support from education managers, policy makers, curriculum developers, employers and other education stakeholders...could... create collaborations as a college with jurisdictions where authentic learning has been implemented and advanced.” His suggestions for increasing knowledge of Indigenous learning purport to “develop a data base of community leaders, community schools, community businesses and enter into collaboration with them with an interest of encouraging them to be part of

the college” with the objective of “immersing students in the real-world context.” This statement depicts similarities between IAE and AL, which “both advance the real-life learning of students.”

“Quality” is the key for improvement. When discussing the ways in which teaching and learning can undergo improvement not only at Makerere but also throughout all of SSA, Steven emphasizes “quality” teachers and resources. When hiring teachers, Steven remarks that “it is important to ensure quality, so that whoever is teaching is qualified.” In addition, he also illuminates the need to improve resources and infrastructural reliability throughout the interview; he previously mentions a paucity of computers, projects, and soft boards as well as infrastructural deficits such as malfunctioning public-address systems and spotty internet service. Even the rooms within the buildings are poor; he states that, “you can see our rooms here; if you went to some secondary schools, some offices have rats sleeping there.” The image of rats sleeping in offices provides a vivid image of the dire need for additional funding: “it is [all] about money.”

In order to improve the quality of teachers and materials, Steven underlines the importance of support from stakeholders such as government and administration. He states that Makerere requires “support from the government. These are government institutions. How does the government look at these things we do here? Sometimes the government looks at us like we are in a different world from them.” The fact that the government is in “a different world” from the instructors illustrates a large philosophical gap between educational stakeholders. In addition, Steven states that “if you bring in the university politics, it is another problem.” The “problem” with university politics lies in the fact that some university members may keep resources for themselves and share them only sparingly. For example, Steven explains that

our deputy principal, who is in charge of academics, used his office to secure a public-address system and projector that we are using here. We have a projector at the Dean’s office, but if I want to use the projector, I have to go and borrow it.

In addition to the sparse resources and their inequitable distribution, Steven mentions the inability to maintain or repair facilities. For example, instructors often meet “in the conference hall, which has a smart board, but sometimes it does not work.” Although external organizations, such as the World Bank, have helped to fund Makerere’s resources, Steven remarks that the labour market has failed to provide any assistance, as “they just wait to receive the students that we graduate.” This lack of assistance from the labour market, as well as minimal government and administrative help, suggests the need to involve more stakeholders in the process of improving teaching and learning.

Classroom observations and analysis. Unfortunately, Steven was not running classes during the designated observation period, so there was no opportunity to observe him teach. Steven’s classes had finished the previous semester and he had planned to resume teaching in the upcoming semester. In order to provide a projected description of Steven’s classroom, this section draws upon interview data, observations about Steven’s demeanor, and researcher interpretation.

In his classes, Steven describes that he uses a combination of teacher-centered lecturing and student-centered interactive methods. Among the student-centered activities, he engages his class through large-class discussion, collaboration, and role play. In particular, he explained that when he started teaching, he used mainly the lecture-centered approach; however, he now combines that method with other activities as he has learned about interactive methodologies. In fact, he even mentions that he sometimes takes students into the field in order to show them how the classroom material relates to real-life teaching. While in the field, Steven sits with the students and provides guidance by explaining phenomenon rather than just allowing students to observe. Despite Steven’s attempts to integrate student-centered learning and vary his teaching approaches, he admits that he still requires more expertise with digital technology, such as internet, video, radio, or television.

Steven uses a variety of assessment strategies, including individual assignments and group presentations. He mentioned that he usually assigns students to collaborative groups and instructs

them to research a topic in preparation for a presentation to the class. In particular, Steven explained that when he uses the lecture method, students seem disinterested or even distracted, but when he uses student-centered or interactive activities and assessment strategies, the students seem engaged. Personally, Steven displays a high level of passion and enthusiasm for his subject matter and his students. Steven speaks very quickly with a sense of urgency about him. He elaborated upon his genuine care about his students, explaining that he frequently encounters current and former students outside of class or after graduation. In the latter case, he has meaningful conversations with them about their success in life and feels appreciated when the students recognize him.

Some of Steven's teaching approaches support real-life learning or AL. In particular, his active learning methods, including large-class discussion, collaboration, and role play, all provide interactive ways of allowing students to engage with the material. Furthermore, these methods allow Steven to fulfill the role of facilitator or event manager. In addition to using student-centered learning in the classroom, Steven takes his students into the field in order to provide a realistic context for their learning. He also mentions community business support services and training programs as other ways to connect students to their community, which corresponds to AL.

For the most part, Steven seems to disregard elements of IAE in his teaching. However, he mentions the importance of integrating practical elements of teaching and occasionally takes his students into field into order to observe interactions within schools and classrooms. In addition, he acknowledges the importance of taking a holistic approach to teaching when he emphasizes the importance of shadowing during school practice. In particular, he recommends that student teachers follow their associate teachers around to observe all of their activities rather than simply their teaching. This method acknowledges the significance of the holistic approach used in IAE.

Recapitulation

This chapter has provided an account of the participant's interpretive cases according to the dominant themes that emerged from each individual interview. The material forming the cases consisted of a combination of the initial 60-minute interviews, the follow-up interviews, and the classroom observations. While the original interviews consisted of responses to a series of six general questions, the follow-up interviews addressed the gaps that remained in unanswered questions or ideas that required further exploration and elaboration and ensured member checking to validate the analysis and themes emerging out of the data collected from every participant. Finally, the classroom observations, included at the end of each profile, summarized the live teaching of each participant. The initial interviews explored the following topics: a) the reasons that these participants decided to seek a teaching opportunity with the university; b) the characterization of participants' experiences in teaching university; c) the participants' perceived experiences of the pedagogical approaches implemented at their university; d) the participants' perceived experiences of the degree to which student-centered learning is implemented and supported at the university level, e) participants' knowledge of IAE; and f) the participants' perception of the way in which teaching and learning in Ugandan PSE can undergo improvement. The resulting cases that emerged from these two sets of interviews represent six unique case studies, each of which is characterized by various themes pertaining to the six topics. Subsequently, the next chapter, Chapter Five, compares these individual cases to identify recurring patterns among the descriptions and to analyze the similarities and differences regarding the way in which each instructor addresses the particular themes. The next chapter, Chapter Six, relates study findings to the literature review for addressing the purpose, while the final chapter, Chapter Seven, discusses the implications of the findings along with limitations and future directions.

CHAPTER FIVE: RESULTS OF CROSS-CASE ANALYSIS

The previous chapter provided the results of the participant interviews and classroom observations. Specifically, the chapter was divided into six sections, each of which fully profiled one of the participants at a time by organizing their interviews into themes followed by a description and analysis of their classroom observations. Using the instructor profiles generated in the previous chapter, this chapter presents a cross-case analysis of the results in order to determine what Yin (1993) refers to as “patterns” that relate the observations from the separate cases to one another, which subsequently facilitates the ability to relate the findings back to the research questions and address the study purpose. In order to generate the cross-case analysis, the instructor’s interview responses and classroom observations were compared to the research questions guiding the study:

1. What are instructors’ perceptions of their experiences with postsecondary pedagogical approaches or instructional methodologies implemented in their university?
2. What are instructors’ perceptions of their experiences with the degree to which AL is important, implemented, and supported at the university level?
3. What are instructors’ perceptions of the IAE pedagogy and how they relate it to their current postsecondary instructional methodologies?
4. How do instructors perceive the way in which teaching and learning in Ugandan PSE can undergo improvement?

In addition, these four research questions comprise four of the six main guiding categories that respondents addressed during the interviews: 1) the reasons that these participants decided to seek a teaching opportunity with the university; 2) the characterization of participants’ experiences in teaching at university; 3) the participants’ perceived experiences of the pedagogical approaches implemented at their university; 4) the participants’ perceived experiences of the degree to which

student-centered learning is implemented and supported at the university level, 5) participants' knowledge of IAE; and 6) participants' perception of the way in which teaching and learning in Ugandan PSE can undergo improvement. The first two categories, the reasons for participants seeking a teaching job and the characterization of participants' teaching experiences, were discounted in the analysis, as these two questions were intended mainly to obtain background information about the participant for the purposes of contextualizing his/her answers as per the paradigm of qualitative research. Rather than using Yin's (1993) term of "pattern," this analysis will utilize the term "category" to refer to dominant themes that emerged from a cross-case analysis of the instructors' responses and classroom observations. Therefore, the remainder of this chapter presents a cross-case analysis based on four categories: 1) perceived experiences of the pedagogical approaches; 2) perceived experiences of AL 3) knowledge and application of IAE; and 4) perception of how teaching and learning in Ugandan PSE can improve.

Category 1: Perceived Experiences of Pedagogical Approaches

The first major category deals with the pedagogical approaches used by Makerere instructors. Based on the answers that emerged from the research, this section is grouped into three main sets of findings: a) training, which involves the initial orientation into the postsecondary environment and subsequent pedagogical retooling; b) pedagogical approaches as well as the freedoms and limitations associated with those approaches; and c) the relationship between pedagogical approaches and real life.

Orientation into Postsecondary Environment and Pedagogical Retooling

The first subcategory concerns the orientation, training, and retraining that Makerere professors receive for teaching in a postsecondary environment as well as education in student-centered learning methods. All six participants unanimously concurred about the lack of orientation that Makerere offered new instructors. Patrick boldly stated that "there is no serious orientation" at

Makerere, and since “there is no agreement on methods...someone will just hand over a course and tell [new instructors] to start.” In fact, many of the professors experienced this exact type of orientation; Ned explained that when he began teaching at Makerere, the department head “pointed out where the classroom was and told [him] that the students attend lectures [in a particular room].” Mathew had a very similar experience, as he “was asked to go into the lecture room and teach” immediately rather than “doing some minor activities.” Craig, who also received a paucity of orientation, articulated Makerere’s assumption that teachers should “create [their] own agenda and start teaching,” which he believes is “problematic.” Craig elaborated that Makerere administration “assume that when you come back with a Ph.D., you are good enough to start teaching,” and Patrick alluded to “the assumption...that when they are recruiting people who have done education...they already know what to do.” These statements suggest that perhaps Makerere administration lacks the understanding that teachers require training, which represents the first step in designing potential programs to train and orient new instructors.

Despite the lack of orientation, a few professors mentioned a small amount of mentorship that they received from other colleagues. Patrick attested to the functionality of this system, stating that professors need to “rely on [their] experiences and maybe talk to colleagues.” Accordingly, Carlton learned from Patrick, who “introduced [him] to the system.” Similarly, Mathew commented that he has mostly “learned on the job...[he] was put under the guidance of a senior colleague...[who] helped [him] learn in certain ways.” The learning experiences of Mathew and Carlton represent an improvement over those of the other respondents, as they reaped the benefits of mentorship. Similarly, Steven received a similar type of mentorship as he “was working along with the other lecturer, who was teaching his class,” allowing Steven to see “how to stand in front of students, set questions, and mark.” Otherwise, however, Steven reported that Makerere administration “showed [him] the classroom, and told [him] the things that [he] needed,” thus

lacking “formal training telling people how to do certain things.” Therefore, the sole type of “orientation” or “training” that professors receive has come from observing or shadowing more experienced or senior lecturers.

In addition to lacking an initial orientation, the instructors agreed about the general paucity of pedagogical training available at Makerere. While some of the participants indicated that a few training initiatives exist, certain barriers have limited the full implementation or success of these retooling efforts. Ned maintained that “the teaching that we have is the teaching methodology we acquired during our undergraduate studies and perhaps during our masters.” Like Ned, Carlton relied on his previous pedagogical training; he stated that he used his prior knowledge of “the problems of epistemologically-oriented classical modern philosophy of the mind” to guide his pedagogical approach. Unlike Ned and Carlton, who pointed to theory as a guide, Steven highlighted the role of observing other teachers. He asserted that he and other new instructors “tried as much as possible to emulate how the other teacher was teaching.” These statements boldly proclaim Makerere’s lack of a retooling program that teaches instructors new methods. Ned qualified his earlier response by indicating that Makerere has “been planning [a program] but...it is not a regular program.” Along the same lines, Steven stated that Makerere “had designed a program...but that program experienced competition because another school also wanted to implement it.” Likewise, Patrick mentioned that “many programs that have been proposed but not yet implemented,” and Carlton asserted that only instructors’ “private interest and consequent experimentation” served as pedagogical retooling efforts. Thus, the professors demonstrated unanimous agreement about the minimal effort Makerere has put towards methodological training.

Despite the lack of a uniform, standardized program, some professors provided insight into a few minor training initiatives. Most professors mentioned internal workshops as a major source of pedagogical training. Craig revealed that Makerere hosts a two-week workshop “where [instructors]

discuss a few things about how [to] teach adults, the methods.” Steven discussed his experience as part of “a training team” that “would go and teach about methodologies” in workshops and seminars. According to Patrick, “staff [were] attending from all schools in the university,” attesting to their popularity. Unlike the previous respondents, Mathew stated that Makerere provides “several” opportunities for retooling, which include “workshops on interactive methods of teaching and other contemporary approaches to teaching.” However, “some of the policies are not being practiced” and, concurring with Ned, Mathew highlighted the lack of funding in his interview. Outside of Makerere, there are several conferences on teaching methodologies, as Patrick attended conferences in different areas of SSA. He states that although no concrete training program exists, “things are moving in the right direction,” thus providing a measure of hope for the future.

Pedagogical Approaches, Freedoms, and Limitations

Furthermore, the participants discussed their pedagogical methods of choice along with the freedoms and limitations of those approaches. The responses from the Makerere instructors revealed some variation regarding their perceptions of pedagogical approaches. While some instructors admitted to using mainly the traditional lecture-centered method, others claimed to use mostly student-centered methodologies, which many Makerere instructors refer to as “interactive methods.” Yet other instructors used a blend of both methods depending upon the situation or have changed their methods from teacher-centered to interactive approaches.

First, the instructors that reported using mainly the lecture method include Ned and Mathew. Ned confessed that both he and the other instructors have been “using the lecture method, basically, because [they] lack the necessary infrastructure.” Steven concurred with this assertion: “our strategies here are affected by the facilities.” He elaborated that instructors “don’t always have the facilities or the time” to implement student-centered learning. Ned qualified his earlier response by maintaining that he has “sometimes used classroom presentations...However, this method also has

its challenges,” which he subsequently cited as relating to class size. The classroom observations supported Ned’s claims of using a lecture-centered method. Although he made some attempts to stimulate debate among the students, he controlled the discussion through lecture and posed few questions. Similar to Ned, Carlton confessed that he previously used the lecture method, where instructors “just came and dictated some things...and left.” Echoing the response of Ned, Mathew confessed that most “lecturers...still employ the lecture method.” Within the framework of this method, “a professor, a doctor, or a lecturer stands in front of a class and talks about his subject matter to the students.” Unlike those of Ned, however, Mathew’s classroom observations differed slightly from his interview responses, as, during his class, he implemented interactive learning strategies through the provision of real-world activities, collaborative group work, role play, and peer teaching. However, Mathew’s small class may have influenced his choice to use learner-centered methods and enhanced his ability to achieve these aims. Both the interview responses and classroom observations demonstrate the existence of the lecture-centered method at Makerere.

Despite the prominence of teacher-centered learning, some instructors spoke of their efforts to use student-centered methods. Craig reported his attempts to implement more learner-centered activities into his teaching. He stated that “it is not me mainly teaching; [students] are reading, we are discussing the activities.” Specifically, Craig integrated interactive methods through technology: “I realized that using technology is very important and I have been using the ED Model,” which facilitated communication amongst instructors and students. Craig’s classroom observations attested to his use of alternative teaching methods, which not only included technology but also involved collaboration, group work, and presentations. Craig and his colleague continually moved around the classroom to conference briefly with groups of students and acted as facilitators by guiding students with hints, comments, and responses. Similar to Craig, Steven expressed that he used interactive methods, “where [the] students are involved in activities.” He elaborated that “we

engaged the students in teaching and learning. We give them assignments and encourage them to work together as a group for doing presentations.” However, Craig reported that he varied his teaching methods depending upon the circumstances; he stated that “as much as you may want to do certain things, the conditions do not allow them.” Despite his earlier use of lecture-centered teaching, Carlton stated that he now uses student-centered learning, which includes “the group presentation and discussion method.” Patrick elaborated on this method, where he “tells students to make groups, and then they have to do research.” Subsequently, students consult with the instructors, who “give them advice where possible and share materials,” thus invoking the facilitator role. In sum, these responses and corresponding classroom observations provided some evidence of student-centered learning at Makerere.

While some instructors use technology and interactive tasks to stimulate student-centered learning, Carlton and Patrick have made extensive use of the team-teaching approach for this purpose. A separate interview with both participants focused specifically on their unique approach to collaborative instruction. These instructors state that “most of our classes are discursive – involving group discussions, role plays, and even personal testimonies.” Thus, Carlton and Patrick combine their personal knowledge, resources, and assets to implement active learning without the use of modern technology or other aids. Furthermore, the tandem interview revealed that the team-teaching approach enables the facilitator role. During these student-centered activities, both instructors act as “facilitators of this conversational (intersubjective) process—making interruptions (questions or additions, or corrections) and building consensus.” The classroom observations of both instructors bore testament to their use of student-centered learning. Both instructors used all three methods previously mentioned, while assuming the role of the facilitator. Carlton used presentations and debates in his classroom, while Patrick implemented shared storytelling to garner the students’ interest. In addition, both professors facilitated the class by allowing students to work

in groups and share their information with the class in the form of an oral presentation. The instructors used probing or redirecting questions to motivate the students to think further and to involve all students in the critical thinking process, while using nonverbal language, such as head nods, to encourage students to continue their line of reasoning. Through their role as facilitators and their activity choices, both Patrick and Carlton described and demonstrated how the team-teaching approach facilitates student-centered learning.

In addition to discussing their personal teaching approaches, several participants highlighted different challenges with teacher-centered learning. Ned elaborated upon the obstacles of the lecture method as including “limited communication within students, ...lack of team work, [no] critical thinking and problem solving happening, [and lack of] opportunity [for students] to be exposed to the real-world.” Ned’s classroom observations showed that the lecture method failed to stimulate student learning. In particular, most of the students remained disinterested and some students even engaged in distractive behaviours, such as talking amongst themselves. Even Carlton, who used mainly student-centered learning, failed to engage the students during the lecture portions of the class, resulting in some of the students lacking focus. Like Ned, some of the instructors cited the fact that teacher-centered learning hinders the student-teacher relationship. Carlton stated that “there is no personal contact. You never know your students,” and Patrick concurred with this assessment, asserting that “the old model involved some type of detachment between the teacher and student.” As a result of this “detachment,” Mathew mentioned that when instructors use the lecture method, “the students are not even given an opportunity to say something during the lecture” or to “interact with the content.” Consequently, Mathew believed that with this one-way provision of information, “learning is incapacitated.” He also highlighted the disadvantages with traditional teaching methods, which include student inertia towards reading articles; he recounted one time where he “discovered that less than a quarter of the class had read the excerpt.” In his

observation class, Mathew had provided the students with reading homework in order to constitute the basis for his discussion, which supported his interview responses. Finally, Patrick mentioned that the reliance on memorization alienates many students: “we are all gifted differently. If you do not have the ability to cram, then you will be in trouble.” Therefore, the instructors revealed a wide variety of disadvantages to teacher-centered or lecture-based learning.

In contrast, participants mentioned various drawbacks to student-centered learning methods. Most instructors mentioned that students lack exposure to the new approaches, so, as Carlton attested, “the students seem confused.” Likewise, Craig reported that most students feel accustomed to teacher-centered learning, which increases their reluctance for adapting to a new method. He mentioned that “at first, some students think it is a joke, but eventually they realize there is a lot of learning taking place and they have to really get serious.” In agreement, Patrick stated that “some students do not appreciate the interactive way of teaching; they are so used to the traditional way of teaching.” Similar to Craig, Mathew expressed that student attitudes or expectations represented a downfall to student-centered learning; he stated that “the students seem to lack knowledge of the topic,” partly because “the reading culture is low in this part of the world.” Continuing the topic of literacy, Carlton stated that students prefer the lecture-centered method because “all they wanted were precise notes given to them so that they could give them back to you on the exam, get their degrees, and leave.” During the classroom observations, Carlton’s inability to provide students with notes left some students bored and disinterested during student presentations, hence providing evidence for student reliance on instructor handouts. Patrick echoed this sense of student inertia when he stated that the teacher-centered method “creates laziness” in large groups. In addition to focusing on student drawbacks, a few professors mentioned the disadvantage for instructors. Craig stated that “it takes a lot of energy to plan in advance,” which aligned with Ned’s implication that student-centered learning requires massive efforts with extra support. Steven concurred with the

extent of work involved in planning student-centered learning activities; he attested to instructors' preference for "a method that prevents us from doing a lot of extra work." Thus, the responses and observations indicated that the main disadvantage to student-centered learning involved the extent of work involved for both students and instructors.

The next topic concerned the amount of pedagogical freedom at Makerere. All participants concurred unanimously that Makerere administration has provided instructors with complete freedom to implement pedagogical methods of their choice. However, some respondents highlighted the irony in this fact, that as, while the university has allowed the professors pedagogical freedom, Makerere has failed to provide the instructors with the necessary supports for implementing the teaching approach of their choice. For instance, Steven stated that instructors "have the freedom, but they do not have the resources to use," which causes "internal conflicts about what methods to use." Ned provided a poignant analogy about the freedom that Makerere grants yet simultaneously limits through its resource limitations: "It is like being in chains and then someone locks you in a room and tells you that now you are free." Mathew referred to this irony as "interesting" because "academic managers...do not go the extra mile to supervise colleagues." Similarly, Craig reported that instructors "can do what [they] want...nobody will come and say that [an instructor] cannot use a learner-centered approach." However, like Ned, Craig mentioned problems with this freedom; while Ned emphasized a lack of administrative support, Craig highlighted a lack of oversight. He expressed that "nobody has come to me and told me that the way I am teaching is wrong." Like Craig, Carlton stated that "nobody inspects us, some we take advantage of that because the inspectors may not even know what is going on." Unlike the other respondents, Patrick emphasized the positive aspects of pedagogical freedom; he stated that "I am the so-called expert in my field," which has provided him with control. In addition, he has enjoyed the flexibility to "change [his] teaching, so there is a lot of liberty to change." However, Patrick was

the only instructor to focus on the positive aspects of pedagogical freedom, as the other respondents discussed the lack of administrative support with resources, training, and oversight.

Pedagogical Approaches and Real-Life Learning

The third subcategory emerging from the research concerns the relationship between pedagogical approaches and real-life learning, which includes both the world beyond the classroom and the labour market. The vast majority of professors maintained that the lecture method fails to connect to the real world, while student-centered or interactive learning approaches, including AL, relate to the real world. Steven commented that “the lecture method...doesn’t necessarily translate into real-life skills needed within the creative economy of today.” Similarly, Ned stated that the lecture-centered method “is not related” to the real-life learning needs of students as it “does not consider the student at all; it does not consider the opinion of the students.” The observations of Ned’s classroom teaching showed that his teaching neglected the “real-life learning needs of students.” He controlled the majority of the discussion through lecturing. Although he posed some questions, he engaged with only the students that showed interest, leaving most students disengaged. In agreement with Ned, Mathew expressed that the lecture method deprives students of the opportunity to “interact with content or to construct their own learning.” However, unlike Ned, Mathew provided his students with plenty of opportunity to construct their learning by requiring his students to design a language instruction program for their prospective students. By deviating from the teacher-centered method, Mathew connected his students to the real world, thus showing the inability to the former method to relate to real life. Therefore, the instructor responses and classroom observations attested to a disconnection between lecture-centered learning and real life.

Unlike teacher-centered instruction, student-centered teaching relates to the real world. Craig discussed the benefits of project-based learning, where he “require[d] [his] students to examine real life situations, challenges, or problems.” The use of real-life situations allows students

to “identify gaps” and “yield a solution to the problem.” Craig’s classroom observations bore testament to his interview responses, as he used strategies that related to the real world.

Specifically, Craig divided students into teams and required them to design projects that related to the teaching profession. After designing or revising their courses, students shared their plan with the rest of the class. In addition, Craig used questioning strategies that stimulated critical thinking and provided ample time for students to respond to his questions. In fact, Craig even directed some questions to other students, which facilitated whole-class participation. Similar to Craig, Mathew used project-based learning by requiring students to collect data in the field, consult with different experts, produce a final product, and share that product with a peer audience. All four of these tasks, summed in one culminating project, and mandated students to interact with the community and perform real tasks. Finally, Patrick and Carlton maintained that their team-teaching approach “promotes a perspectival view of the world, a willingness to appreciate different points of view.” This perspective came to fruition in their classrooms, as Patrick in particular encouraged opposing student views and both instructors demonstrated enthusiasm in receiving and accepting contrary perspectives. In fact, the debate process encouraged students to contest one another’s viewpoints. Thus, respondents agreed that student-centered learning relates to the realistic needs of students.

Although the majority of professors concurred that student-centered learning connects to the real world, a few instructors mentioned the disconnection between interactive teaching methods and assessment requirements. Patrick elaborated that during the times where instructors must return to “traditional methods...the students are confused...there is no linkage between the teaching method and the assessment.” As a result, students may “have failed [the exam] despite the fact that in reality, they have learned leadership skills; they were leading others during the discussion.” Patrick pinpoints university administration as responsible for this disconnect, “where some members of the university still insist on the old methods.” The classroom observations for Patrick’s and Carlton’s

team teaching efforts demonstrated the disconnect between the student-centered learning that both instructors implemented and the standardized assessments that they delivered. Although Carlton used student-centered learning through collaboration, debate, and presentations, he assigned students essay questions as a follow-up means of testing their knowledge from the presentations. In addition, Carlton struggled to integrate the various teaching methodologies and activities by failing to connect the lecture material to the presentations through homework or reading that involves the student audience listening to the presentation. As it stood, many students in the audience lacked the basic knowledge that the presenters shared with the class, leaving some students disengaged and distracted. Thus, the professors' testaments and classroom observations showed the necessity of integrating student-centered learning with lecture and assessment.

Moreover, many respondents indicated that outside of student-centered teaching, school practice connects the classroom to the real world. Ned highlighted school practice as the only “[attempt] to connect to the real world.” In many ways, Ned’s physical classroom, which contained a chalkboard, minimal resources, poor lighting and row seating, remained isolated from the real world. Similarly, many students remained isolated from the discussion, where Ned focused only on the students that showed interest and knowledge in the topic. Like Ned, Mathew highlighted the role of school practice in linking students to real life: “school practice is one avenue that helps us to take our students to schools.” Likewise, Steven stated that school practice constitutes the “practical experience that [instructors] give their students” so students “can...put the knowledge and skills that [instructors] have given them into real practice to handle issues in the school.” Along with school practice, Mathew mentioned national conferences, where instructors “invite [their] students to participate” and subsequently apply their knowledge to their school practice. However, Mathew was the only respondent that mentioned student participation in conferences, hence suggesting that school practice represents the main way that instructors connect students to the real world.

In addition to school practice, interactive or student-centered methods in the classroom connect students to the real world. Craig's project-based learning linked students directly to the real world because he gets "students to tell [him] about an instructional problem...and provide them with some hints for solving it." By guiding students to solve problems they encounter in the real world, Craig has made learning more relevant for his students. As mentioned, the classroom observations of Craig's class revealed connections to the real world, as the projects he assigned students to redesign came from their school practice experience. Furthermore, he required students to present their projects to the rest of the class, which resembled a real-life audience. Similar to Craig, Mathew had students collect data and consult with experts in the community and share their projects with peers. This experience made learning realistic because students underwent processes that related to teaching. Finally, Steven maintained that he "emphasize[s] the practical aspects with the students, such as going into the field, sitting with them, showing them, and discussing things." For example, he "had to send out [his] students to observe teachers within different schools." Finally, Patrick instructs his students to "tell [instructors] as many stories as they can," which "links more directly to the real world than in the past, where [teachers] gave students examples." Patrick, and, to a lesser extent, Carlton, made effective use of storytelling in their classroom observations, as they both told students stories while encouraging students to share stories with them.

Lastly, the consensus among the participants revealed that while the teacher-centered or lecture method failed to provide students with real-life labour market skills, student-centered or interactive learning methods have endowed students with these abilities. Carlton mentioned the importance of networking and collaboration in student-centered learning; in particular, his slogan, "do not just work, network" has inspired his students to apply their teaching education to other professions or creative endeavors, such as a "small kiosk, a barbershop, or even a school." In addition, he elaborated on the importance of "personal skills, persuasive skills, self-presentation,

and innovation” as critical skills that students need to develop in order to prepare them for the labour market. Carlton’s classroom observations bore testament to this statement, as he assigned his students collaborative group work and presentations. Unlike other respondents, Carlton conceived education as “a stepping stone in so many directions.” Like Carlton, Patrick mentioned that student-centered learning connects to the skills required for the creative economy; specifically, he stated that the interactive methods “are about inventing new practices, manipulating, dealing with different issues, and working with many people.” Patrick’s description corresponds to the essential skills of innovation, analysis, problem-solving and collaboration respectively. Finally, both participants agreed that the team-teaching approach fostered collaboration among the students, “the spirit of cooperation in lecturing would also make the classroom a rich locus of conversation - bringing in elements not only from the backgrounds of the two of us but also from that of the students.” Patrick and Carlton used the instructional approach of storytelling in their classrooms to not only relay anecdotes to students but also encourage students to share their own stories. This approach showed the strong connection between student-centered learning and real-life skills.

While student-centered learning connects students to real life and the labour market, teacher-centered learning alienates students from the world of work and the realistic skills required for the labor force. Ned illustrated the stark contrast between the “entire education system of lecturing, cramming, reproducing, and forgetting the following day” and “the labor market [which] requires somebody who is more practical, more-hands on.” Similarly, Mathew attested to “a mismatch between the way [instructors] train [their] students and the changing trends out there” and Steven alluded to “a significant mismatch between how [instructors] teach and what employers need.” While all three professors used very similar language to describe the misalignment between education and the labour market, respondents mentioned possible reasons for this mismatch. Ned elaborated that “the school system has not bothered to produce such a student because of the

challenges within the school system, especially the challenges associated with financing” as well as the fact that “society has a negative attitude towards vocational education.” Carlton echoed the elitist mentality surrounding a university education, as parents and students “still have that feeling that they will have done their children a lot of service if everybody finishes their education at Makerere.” Craig asserted that although he uses hands-on pedagogical approaches, he “still feel[s] that is a lot lacking in terms of relating/connecting with the real-life labor market needed skills,” especially since he has not “required [his] students to...interact with [real] organizations.” The feedback from potential employers revealed the inadequate preparation of student teachers. When Mathew visits schools to receive feedback about his students, teachers “tell [instructors] that [their] students have the content but cannot teach,” and Steven reported, “there are people that have been thinking that our students do not have skills.” Lastly, Patrick maintained that although some instructors and universities have begun to implement student-centered learning, “there are still many issues to sort out with regards to how they support the labour market.” These responses illustrate the disconnect between the student-centered theoretical teachings in the university and the actual skills required in the labour market.

Category 2: Perceived Experiences of AL

The second major category concerns the instructors’ perceived experiences of AL as a viable instructional methodology. This section consists of several subcategories, including a) knowledge of AL; b) implementation of AL; c) administrative support for AL; and d) barriers to AL and ways of overcoming those barriers.

Knowledge of AL

The first subcategory involves the professors’ knowledge of AL. This knowledge involves both instructors’ current knowledge of AL as well as suggested ways of gaining more knowledge about this method. Most instructors demonstrated at least a basic understanding about AL. Ned

voiced his awareness of AL as a distinct methodology, which he gained from research and reading: “I know there are these approaches, but I have not used them because of certain reasons that we have discussed.” More specifically, Ned defined AL as “the type of teaching that enables students to learn in a real-life context [and] while doing things within communities...by doing and sharing what they have learned with the world.” Although Ned possesses a basic knowledge of AL, his classroom observations revealed missed opportunities for integrating this mode of instruction. Despite the paucity of resources, Ned’s teaching style, including his minimal movements, ineffective use of questioning, and disorganized structure of the class demonstrated an inability to integrate AL. These observations suggested that while resource limitations represent a barrier to authentic learning, Ned’s own knowledge may require improvement.

Mathew’s definition of AL coincided with that of Ned, as Mathew stated that AL “is where teaching and learning are grounded in the real-world environment.” More precisely, both instructors used the word “real” and related teaching to the real world or life. Furthermore, Mathew, like Ned, also highlighted the role of the community in AL, as he mentioned that in this mode of instruction, “learning must not happen in the classroom alone but should be extended into the places where real-life activities are happening...within their communities” Mathew’s class reflected his beliefs about AL as he instructed the students to enter the community to collect information, and he required students to undergo realistic processes, such as data collection, report compilation, and presentation. Carlton defined AL as a type of personalized education “that recognizes that every learner has a story to tell and has unique concerns or needs;” in fact, Carlton used the process of storytelling to generate enthusiasm and instill learning in his students. Similar to Carlton, Patrick defined AL as a “style of learning [that] empowers students and involves them in the construction of knowledge.” Patrick’s classroom observations showed that he involved students in constructing knowledge through collaborative group research that generated solutions to a

problem. Along with the personalized aspect of AL, Carlton maintained that every learner “has something to give and take,” which coincided with Patrick’s definition of AL as a construction of knowledge through the process sharing information. Both instructors supported their assertions with the use of debate and storytelling, which allowed students to actively construct knowledge by sharing information and thus gaining new perspectives. Finally, like other participants, Carlton envisioned AL as something that represents an “interplay between practical and theoretical knowledge,” thus attesting to its realism. Overall, the dominant aspects of AL emerging from the interviews emphasized the elements of personalized knowledge construction and real-life learning.

In addition to providing definitions of AL, most participants expressed their understanding of AL as an important aspect of teaching. Steven voiced that “we are aware that we are supposed to teach our students hands-on [and] involve our students in the lessons.” Ned acknowledged the importance of AL, “especially at the university level,” where students “can form an opinion of a given topic or a given issue at hand....These ways of teaching would help them think and be creative.” Ned also elaborated on the connection between AL and labor market skills: “this kind of learning encourages students to practice effective communication, collaboration, team-work, critical thinking and inter-personal relations. All these are soft skills that make a student become attractive to employers after graduation.” Mathew echoed Ned’s response when he stated that within the framework of AL, “students should be able to collaborate, team up, challenge each other, critically think, agree, disagree, compromise, reach consensus, and solve real problems.” In Mathew’s class, students demonstrated communication, collaboration, creativity, and problem-solving skills by interacting with experts and classmates, working together in teams, creating programs, and addressing gaps. Patrick emphasized the importance of problem-solving in AL, as, during the process of AL, instructors are “trying to help [students] find inspiration and then contextualize it to solve problems.” In Patrick’s classroom, he encouraged students to solve problems by consulting

with the collaborative student groups and providing tips or hints rather than answers. Therefore, most instructors concurred about the importance of AL for teaching student real-world skills.

In addition, some of the instructors discussed other important aspects of AL, including assessment and student motivation. Craig mentioned the need to understand AL in order to create activities and assessments that align with this approach. He stated that instructors “need to know about authentic learning before [they] can formulate a good question about it.” This viewpoint concurred with Patrick’s earlier assertion that the use of AL in the classroom lacks alignment with the traditional, standardized assessment approaches, such as multiple-choice examinations and essay writing. Additionally, Mathew expressed how interactive learning increases student engagement, as “some of [his] students, including two introverts, increased their participation level” and other students “would knock on his door” to learn more. In concurrence with his interview responses, Mathew’s class demonstrated high levels of student interest and engagement. Mathew made the effort to interact with all of his students and create a collegial relationship. He used gestures, eye contact, voice modulation, and movement effectively to encourage student participation, answer questions, and stimulate further thinking. From this perspective, Mathew’s classroom observations aligned with his interview responses.

Despite the overall consensus of AL as important, respondents acknowledged the need to increase their knowledge about this method. Instructors varied in their responses concerning the way in which they perceived that their knowledge of AL could undergo improvement. Patrick highlighted internal knowledge sharing among professors, which can attempt to “create moments of exposure and then share information.” Patrick’s classroom observations concurred with his interview responses, as he and Carlton shared knowledge with one another in their collaborative teaching approach. A few participants, like Mathew, mentioned the role of reading and research, especially “literature pointing to great authentic learning initiatives elsewhere” and Patrick

mentioned “research to find out more information.” Some respondents pointed to administrative assistance and support as part of the solution. Ned believed that “educational managers...educational policy makers and the labor market sector” can all play a role in improving instructors’ knowledge of AL. In particular, policy makers “need to be at the forefront to ensure that policies initiate and support” AL. Similarly, Steven suggested that instructors require “support from college education managers, education policy makers, curriculum developers, the labour market (employers) and government.” However, while Ned believed that these important stakeholders can assist instructors by implementing policies, Steven believed that these parties can facilitate collaborations with other institutions to create “exchange programs” that allow instructors to “visit other scholars and learn from their experiences” and “secure grants to conduct research,” which concurred with Mathew’s suggestion of increasing professional development opportunities. Carlton echoed Steven’s assertion by maintaining the “need to intensively interact with other groups...or persons concerned on all levels – curriculum, pedagogy, and assessment.”

In addition to citing the need for support from external stakeholders, many instructors emphasized the need for external training. Ned suggested “collaborations with other colleges of education in other universities” to “continue learning from instructors that have been implementing authentic learning” as well as research and learning abroad, such as “international conferences where authentic learning methodology papers have been presented and discussed.” Similar to Ned, Craig expressed the need for instructors to learn abroad as well as by “creating space for students to help them interact with the real world of work during and throughout their training.” Along the same lines, Mathew reported that his post-graduate education, similar to that of Craig, “introduced [him] to the different pedagogies and ICTs,” which he subsequently attempted to implement at Makerere. Mathew, like Ned, mentioned the idea of “a faculty exchange program where perhaps [the] university and college would collaborate with other postsecondary institutions.” Carlton hinted

at the possibility of external collaboration when he expressed that “we need to take advantage of the internet to build solidarity among people of similar concerns on the continent of Africa.” To this end, Carlton differed from some of the other respondents when he suggested collaboration within rather than outside of the continent. However, most instructors agreed upon the need for external professional development opportunities.

Implementation of AL

The second subcategory concerns the participants’ implementation of AL based on their present efforts to implement AL, the perceived results of those efforts, and ways to potentially improve the implementation of AL. Instructors reported that they implement AL to varying degrees. Most instructors made at least minimal use of AL, especially in activities such as group work and whole-class discussion. Ned stated that he has attempted to use whole-class discussions or group work, but “this strategy becomes useless, because most students will just sit and look on.” The classroom observations supported this assertion, as many of Ned’s students remain disengaged in the lecture. However, his strategy of using mostly content-based questions, minimal nonverbal gestures, and lack of movement uncover more reasons for the lack of participation in his classes.

In contrast to Ned, Craig used AL strategies through collaborative group work and presentations while facilitating the students’ activities. The students seemed very excited and passionate about Craig’s lesson, thus showing the effectiveness of this strategy for engaging the students. Mathew stated that he “tried as much as possible to make [his] teaching interactive” but encountered limitations, such as the fact that “no student volunteered to say anything” as well as infrastructural, funding, and educational challenges discussed later. However, Mathew’s class observations contradicted his interview responses as he managed to generate a high level of enthusiasm for his subject matter. He varied his teaching methods and used interactive strategies while conveying passion for the topic. In particular, he encouraged student questions by targeting

the individual learning needs of each student, thus personalizing the questions, and by prompting students to offer their opinions and connect their learning to their background. When responding to student questions, Mathew confirmed student ideas, probed them to explore further, and redirected the question to the class. Furthermore, Carlton and Patrick employed the collaborative, team-teaching approach to implement AL. Both instructors combined their efforts to connect students' learning to the real world by using realistic instructional methods such as presentations to an audience, facilitating student learning, and teaching students about real-world skills such as critical thinking, problem solving, and collaboration.

Some of the interviewees commented on their observations of other instructors using AL. Ned mentioned that he observed other teachers use AL and ascribed their efforts to either personal acceptance of financial burdens or team teaching: "sometimes they use their own resources to achieve their learning objectives and support students to achieve their learning outcomes. Other times I have seen the colleagues leverage the power of team teaching." Steven made a similar remark, as he mentioned "the power of the collective" in referring to the team teaching of two of the participants, Patrick and Carlton. Ned's comment on other instructors' use of AL, in conjunction with his own struggles to implement this mode of instruction, suggest that perhaps he could learn from these other professors, many of whom demonstrated the successful delivery of AL through their classroom observations. In conjunction with Ned, Steven mentioned that instructors passionate about implementing authentic learning need to do so at their own expense. However, "sometimes people buy these resources" but "just use them in the lecture room" and "keep them" afterwards, thus showing a reluctance to share their resources with the other instructors. Thus, the acceptance of financial burden or the use of team-teaching represent two ways of implementing AL.

Similar to Ned, Craig observed that "I teach differently from my colleagues;" however, unlike Ned, Craig used student-centered teaching methods. Craig's observation that "many of our

colleagues are still delivering” instruction in what he terms “the traditional way” highlights his belief that his interactive teaching methods differ markedly from the conventional approaches of his colleagues. Likewise, Mathew concurred that “many of our colleagues employ the traditional approaches to teaching, and the major method is the lecture method.” Steven agreed that the lecture method, which he calls “the direct method” is still popular among Makerere instructors “because of the large numbers” of students. Carlton observed the hypocrisy between the fact that students “are supposed to use learner-centered methods for their own teaching, but university education is all lecture-centered.” Patrick concurred with this observation as he states that “instructors used to tell students to use student-centered methods, but then they used another method.” Finally, Patrick commented on the way in which some Makerere instructors have evolved their teaching methods from “traditional methods of teaching to more interactive methods.” The results of the interviews supported this observation, as some of the instructors mentioned that they previously used student-centered learning methods or still occasionally implement these approaches in their teaching.

Furthermore, instructors provided a variety of answers regarding the best way to implement AL, including education and resources. In addition to mentioning the need for resources, Ned stated “that training, especially staff training, is important. We need to be giving them instructor skills.” Patrick agreed with Ned to the extent that “understanding the philosophy of it” is an important aspect of implementing AL. Ned’s own inability to use AL strategies, shown in his classroom observations, supports the need to provide instructors with upgrading in teaching methodologies. Craig, who highlighted the importance of making use of limited resources, showed the results of this suggestion in his lesson, as he used group work and presentations to generate student learning. Mathew, although he admitted to sometimes using lecture-centered approaches, implemented mainly AL in his classroom, showing how personalizing the learning to individual student experiences can generate learner interest. Patrick and Carlton used a team-teaching approach that

allowed them to overcome the limitations posed by large classes. In this approach, the instructors generated a whole-class debate and used storytelling to generate AL in a large-group situation.

Participants also mentioned the integrative aspect of implementing AL. Patrick stated that this method “needs to become the culture in all learning institutions.” Mathew expressed the need for wholesale collaboration amongst the stakeholders, including “instructors, education managers, and education policy makers,” who should “recognize...that we live in the 21st century where everything has changed including the labor market demands.” Consequently, he advocated that AL needs to be “enshrined in policy or even supported by education managers,” so that individual instructors wanting to implement AL have the necessary support and resources. Steven agreed with Mathew, stating that instructors “need natural support from the college education managers, education policy makers, curriculum developers, the labour market (employers), [and] government.” Carlton indicated that he already had involved the stakeholders in implementing AL. He stated that “many of the stakeholders presented reasons that it will not work” but many of the other instructors were interested and “asked us how we do it.” Thus, many instructors highlighted the need to involve external stakeholders in implementing AL while also emphasizing potential resistance from these groups.

A few respondents highlighted the part that instructors can play in integrating AL. Steven asserted that “we the instructors need to drive ourselves out of our own comfort zones that we have for years operated in” by “[appreciating] the change is difficult but starting from somewhere to embrace authentic learning is very important.” Carlton also pinpointed instructors as responsible for implementing AL and specifically suggested that instructors “should just involve the student in doing rather than listening” and “[trust] the student that they can succeed in this capacity.” Carlton’s own classroom observations showed that he used several different activities to directly involve the students in their own learning: collaborative group work, class presentations, debate,

and storytelling. In addition, Carlton mentioned the necessity of orienting the student to the new approach: “we explain how the world works and why we use the type of education that we do.” The team-teaching approach of Carlton and Patrick bore testament to this reality, as both instructors shared their knowledge with one another and harnessed the power of the collective in bringing AL to their classrooms. Therefore, a few of the respondents highlighted the prominent role in which instructors are responsible for their own teaching.

Administrative Support for AL

Instructors’ responses addressed the subcategory of administrative support for AL, which includes training and support from internal or external administration. While most instructors have received some extent of training for student-centered learning methods, much of this training has come from outside of rather than within Makerere University. Ned stated that some instructors can take online courses to upgrade their knowledge; “recently, five of us from this department did an online course...but it was about orienting teaching towards competency-based learning.” However, Ned mentioned that “if a learning opportunity required going abroad...there is no money.” Although Ned felt that restricted funds prohibited him from international study, Craig mentioned his international experience as beneficial to implementing AL. He stated that “I teach differently from my colleagues considering my experience,” where “it is more of a learner-centered approach.” Like the other participants, Carlton highlighted the fact that he needed to initiate his own learning by “many conferences that [he] usually attend[s] locally and abroad.” Unlike Craig and Ned, Carlton suggested that instructors can learn locally as well as outside of Africa.

In addition, the instructors unanimously responded that they receive little to no administrative support for implementing AL. Ned continually highlighted the lack of resources throughout his interview: “the challenge is the lack of facilities in this university.” The minimal resources in Ned’s own classroom, which included only a blackboard and a single piece of chalk

along with dim lighting, attested to the reality of this statement. Likewise, Steven referred to “minimal support from educational managers at all levels” and revealed that “we do not get help unless there are these special organizations that can donate certain things for the university or for the department,” such as the World Bank’s donation for science lab renovations. Carlton states that while administration has “given [instructors] devices and improved the screens, they are still dragging their feet.” While Steven, Ned, and Carlton pointed to the lack of resources, Craig emphasizes the issue of oversight and quality assurance. He revealed that “nobody has ever come to my class to see how I teach,” so “they may not even be aware that I am implementing these methods in my class.” Mathew echoed Craig’s statement by mentioning that an instructor “can come up with a certain innovation and suddenly no one comes up to offer their support.” In contrast to most of the respondents, Patrick, while acknowledging the minimal levels of support from outside, insists that “the environment is an enabling one; it really enables us to have a lot of freedom.” In addition to highlighting pedagogical freedom, Patrick reports that Makerere pays for “studies abroad,” thus contradicting Ned’s response about the lack of funding for professional development opportunities. However, most responses indicate a lack of administrative support.

Barriers and Solutions to AL

Finally, instructors discussed the barriers that stand in the way of implementing AL and the possible ways of overcoming such obstacles. First, the barriers included the lack of financial, material, and infrastructural resources. Ned continually mentioned the financial limitations imposed upon Makerere instructors; he stated that, “I think this syndrome of no money has killed everything.” Ned’s own classroom, devoid of all but basic materials, bore testament to this reality. Likewise, Steven stated that “this facility depends on money,” which is not always available. In addition, Ned hinted at the poor management of funds, as “the money somehow ends up in only a few pockets.” Steven concurred with Ned; when discussing the lack of tutorial assistants, he stated

that “the money to pay them is not there.” In contrast to the majority of instructors, Carlton disagreed that funding represents a limitation, as he expressed his desire “to stop this mentality of saying teachers are poor and complaining that no government will give us money.”

In addition to money, instructors highlighted the lack of infrastructural support. Mathew emphasized the resource shortages as comprising an obstacle to AL. In particular, he identified poor infrastructure as preventing the development of interactive methods; he lists “ICT infrastructure or the bandwidth” and “the connectivity” as major problems. Steven echoed Mathew’s sentiments when he mentioned that “large numbers of students require the infrastructural support, such as the public-address system. Without the PA system, you are shouting all the time.” Steven also pointed to the lack of reading material: “there was very limited reading material. Even if you have an assignment and you provided reference lists, these lists are not available in the library, so [instruction] was teacher-centered all the time.” Finally, Steven highlighted the paucity of computers as well as the fact that Makerere lacks “projectors” and “soft boards.” Even in the cases where resources exist, “they have gotten spoilt and nobody repairs them.”

Unlike Ned, Mathew, and Steven, Craig, in conjunction with Carlton asserted, “I disagree that it is a question of resources...having [resources] in place does not guarantee that I will use them to facilitate learning.” Conversely, Craig stated that “we have a lot of resources in our local communities that can be used, but people do not make good use of them.” Similarly, Carlton suggested that students have sufficient resources to engage in AL: “students can download, you just have to tell them where to find knowledge...they will find a way to access and download the information that they need.” Steven echoed the need to use “the meagre resources at our disposal” in order to connect learning to the real world. Finally, a few professors brought up the resource of time as being insufficient. Mathew mentioned that instructors “have to be able to prepare for [the] class to ensure authentic learning takes place” but “there is a lot of work to do,” which limits the

time available to plan authentic activities. In conjunction with the lack of resources, the large class sizes presented an obstacle to AL. Patrick stated that “we want to do more presentations but there is not enough time due to the large class sizes.” However, Carlton disagreed that time limitations represented an issue, as he stated that “many teachers complain about their workload, but I have also bought myself a car,” implying that the busy workload of teaching also contains benefits. Carlton’s classroom observations supported his assertion, as Carlton and his colleague Patrick utilized the minimal time available in the classroom. Despite losing nearly 30 minutes of class time to the previous class, they adjusted their plans to accommodate the new situation and still used AL in their classrooms. These observations suggest that AL can still occur despite resource shortages.

In addition to limited funding and poor resource management, another major barrier involves a lack of knowledge. Patrick immediately pointed to “a lack of information” about AL. Similarly, Craig stated, “I think the problem is not resources but lack of insight, lack of knowledge.” Craig indicated that instructors themselves held accountability as “it is not an issue of resources; it is an issue that concerns a lack of insight, a lack of knowledge that the learner-centered approach is the way to go.” Thus, unlike the majority of participants, who pointed to increased resources as a solution, Craig isolated a lack of instructor knowledge as a barrier to AL. However, Mathew’s insistence that “there is...a shortage of funding” relates more to instructor training than it does to physical resources. Furthermore, Carlton pinpointed the attitude of instructors as problematic towards implementing AL: “the mindset is the most problematic...you see many lecturers...still stuck in the old methods.” Patrick echoed this assertion by mentioning that “older staff tend to be rigid [and] adapt more slowly.” Thus, instructor knowledge and attitudes comprise another obstacle to AL.

After identifying various barriers preventing the implementation of AL, the instructors suggested ways for overcoming these barriers, many of which undergo further elaboration in the

fourth category dealing with the suggested improvements for teaching and learning in SSA. As is the case in the previous question, the instructors suggested a diverse set of solutions, most of which related to the barriers that they identified in the first part of the question. Ned implied additional money and material resources as a potential solution along with staff training. He mentioned, “our colleagues there, once they got the skills, they say that is it, so if you are to implement such pedagogies, it will require training some of the instructors in the new approaches.” Ned’s classroom observation attested to his own struggles with AL, thus providing additional support for the need to train instructors in these methodologies. Craig’s response concurred with that of Ned, as he stated that “we need to orient our colleagues” in the principles of AL, while Mathew mentioned the need for “staff development to sponsor people to go for their PhDs.” Mathew’s response, like that of Ned, emphasized both funding and staff training as an issue while linking poor staff development back to resource shortages. Steven introduced the idea of increased help from “the college and university education managers” to support AL, while Carlton introduced the concept of attitude, stating that “we should limit negative attitudes towards local cultures, languages, habits, and customs.” Carlton’s classroom observations showed that he promoted diversity in his classroom through the process of sharing unique stories about different cultural regions and encouraging different points of view, showing that some of these barriers can be overcome.

In addition, the approach of team teaching represented an effective alternative for overcoming some of the barriers limiting the use of AL. Steven advocated for this approach when he stated that “team teaching...comes handy in the absence of enough resources needed and when there is limited support from both education managers and education policy makers.” Interviews with both Carlton and Patrick showed that collaborative teaching facilitated the delivery of AL. Patrick stated that team teaching allows he and Carlton to “[create] an environment that supports personalized learning” while overcoming the limitations of class size and time. He elaborated that

“our teaching load has significantly eased and we continue to have the time to monitor and support students as they lead their own learning.” With the extra time, Carlton and Patrick gain “the opportunity to introduce...students to the real-world and [support] them to learn from it.” Finally, both instructors mentioned the strategy of observing one another’s separate classes as a way of improving their own teaching in the direction of AL as well as “to improve on, or reject aspects of traditional pedagogies.” The observations of team teaching supported the responses of Patrick and Carlton. Both instructors worked collaboratively to facilitate one another’s classes. They used different strategies support real-world learning, including the production of a tangible outcome in the form of group presentations and the delivery of their product to an audience, which incorporated the other students and the two facilitators. The use of collaborative teaching, along with improved resources, education, and administrative support, represent potential solutions for overcoming the barriers inhibiting AL.

Category 3: Perceived Experiences of IAE

The third major category involves the instructors’ perceived experiences of IAE, the other major pillar of the theoretical framework. Two subcategories emerged from the interview responses: a) instructors’ knowledge of IAE; and b) instructors’ implementation of IAE.

Knowledge of IAE

The instructors demonstrated varying levels of knowledge about IAE. Several instructors acknowledged the practical nature of this methodology; Steven admitted that IAE “was more practical, because students were engaged in their own learning.” Ned articulated his approval of IAE as “practical... it taught you skills that you needed to use. If you were to become a black smith, you would work with this person and produce an item.” In fact, Ned mentioned the importance of practical education in his lecture. Like Ned, Mathew mentioned the idea of mentorship by recalling that in Indigenous society, “the grandparents would go with their grandchildren to hunt.” Like

Mathew, Carlton also mentioned the aspect of heritage associated with IAE, stating that “grandparents might have had a coffee plantation that was self-sustaining.” Similar to Mathew and Ned, Carlton focused on the idea of practicality, as he stated that IAE’s “pedagogy started off concrete...learning the local language.” However, Patrick highlighted that while IAE “seems to be largely practical...every practice is guided by several assumptions and beliefs,” thus, unlike other participants, invoking the theoretical aspect of IAE. Patrick’s classroom observations reflected his belief in the importance of practicality, as he involved students in doing rather than simply listening. Overall, most participants perceived IAE as a practical and traditional method that involved a certain extent of mentorship.

Many of the instructors illustrated connections between the creative economy skills and IAE. Craig expressed that IAE “provided skills that yielded a solution to real life situations,” while Carlton mentioned that IAE “solves as many problems as possible.” During his class, Craig challenged his students to find solutions that involved designing or redesigning a course, thus using elements of IAE in his own teaching. In their responses, Ned, Steven, and Craig highlighted the importance of IAE teaching students practical skills that apply to real life as well as the concept of mentorship. Carlton associated IAE with collaboration, where Indigenous Africans have “the very ethical feeling of humanity,” which connects them to the rest of the community. The team-teaching observations involving Carlton and Patrick displayed a sense of community, where both instructors used collaborative activities to engage their students in their own learning. Carlton also mentioned communication as an important part of IAE as “communication was crucial for interacting with family members and other people in the neighborhood as one deals with immediate challenges in the home environment.” The importance of communication occurred in Carlton’s classroom observations, as he used effective verbal and nonverbal communication to teach students.

A few of the instructors viewed IAE as a holistic framework that influenced all facets of African life. Patrick referred to IAE as “the big picture or the framework that directly and indirectly influence the African modes of thinking, believing, and living.” Accordingly, Patrick’s teaching mimicked the holistic worldview of Indigenous education, as he connected students’ learning processes together with a seamless flow of group work, research, presentation, and debate. Mathew associated IAE with “the Craft Model,” which “was basically designed on the basis that people learned within their specific workplaces.” While Mathew neglected to specifically mention practical training, his mentioning of learning on the job implies the concept of practical activities. In addition, his classroom teaching showed the importance of practical learning, as he assigned his students to collect information from the field, consult with experts, which resemble the mentors in IAE, and present the report to a peer audience. From this perspective, much of students’ learning occurred in the actual workplace, as they went into the community to obtain data, and, besides, the classroom itself resembled a type of workplace, with students conducting activities representative of their profession: collaborating, presenting, role-playing and teaching. Hence, the holistic worldview of IAE associates this methodology with practical training.

Many instructors concurred about the loss of IAE during the process of colonization. In particular, Carlton stated that “our physical lived experiences were imposed upon us by Europeans, so we are suffering a disconnection from our culture.” Consequently, he asserted that “education has done us an injustice” in this regard. Ned maintained that “the white man’s education was brought in to suit his interests, but it was out of context for the African child. It does not cater to the needs of our people.” Ned’s classroom observations supported his discontent about the loss of IAE, as he voiced his frustration about how the instructors have felt forced to use outdated teaching methodologies that resulted from colonization. Like Ned, Steven argued that IAE was “taken over by the so-called western influence that came in and eroded our minds,” which “have become

westernized.” Consequently, people “would rather go with modern influences than traditional ones.” Although Patrick, unlike other interviewees, neglected to explicitly mention colonization, he alluded to this process by expressing that “since our people were uprooted, they may not connect to the Indigenous knowledge.” Consequently, he believes that “we do not know a lot about Indigenous knowledge.” From this perspective, most instructors agreed that IAE has disappeared due to colonization processes, which has led to the loss of Indigenous knowledge.

Despite this extent of agreement, participants differed about their perception of regaining IAE. While some instructors believed that they could retrieve at least some elements of IAE, others maintained the complete inability to regain any aspects of IAE. Ned indicated the potential for IAE in African society; he provided the example of the Karamojongs, a tribe of farmers, who “want education that meets their needs as pastoralists. They want to go to school from morning to midday and then in the evening, go look after the cattle.” During the classroom observations, Ned seemed to believe that instructors could retrieve elements of IAE with greater support from policymakers and education managers. In contrast to Ned, Carlton maintained that society had advanced to the point where fully implementing IAE was impractical; however, he believed that instructors “can retrieve some of the elements.” Craig maintained that although IAE “was tailored to the needs of the time,” current postsecondary instructors “have a lot to learn from Indigenous education” and can “[borrow] a leaf from IAE in [his] pedagogy.” During his classroom observations, Craig borrowed several aspects from IAE, including the idea of experienced teachers or other experts mentoring students and the engagement in practical, hands-on activities for learning about instructional design. Similar to Craig, Mathew asserted that “there is a lot to borrow from the African setting,” and, in his class, he “borrowed” the ideas of assigning students to practical activities, community interaction, collaboration, and realistic tasks.

In contrast to the other professors, Steven expressed his belief that IAE would be difficult to recover in contemporary education. He stated that the biggest struggle involves “understanding Indigenous forms of learning.” Elaborating on this idea, Steven asserted that increasing his knowledge on IAE “would require a lot of research, so that people can see the basics and understand.” However, the amount of resources and information available for IAE research are minimal because “nobody is researching the past. Everybody is thinking of moving the world.” Consequently, Steven believed that even if he or another instructor wanted to increase their knowledge base of IAE, “professors are more focused about what they see in the western world rather than the past.” Carlton concurred with Steven to the extent that IAE “is a type of retrieval or recovery, but we cannot go back.” Carlton elaborated on this statement by asserting that “we do not want to go back to our rural areas; the rural areas lag,” thus suggesting the inability and even unwillingness to return to the apparently primitive nature of IAE. Thus, Steven and Carlton provide a grim picture about the future of IAE. Although Patrick expressed more optimism about recovering IAE, he demonstrated some doubt that instructors can retrieve knowledge about Indigenous education as “we do not know a lot about it” and that IAE “is difficult to generalize as it tends to differ from one culture to another.” However, both Patrick and his colleague Carlton implemented some key elements of IAE in their classroom, including the use of storytelling and oral presentation as truly Indigenous learning methods. Therefore, instructors varied on their perceptions and use of recovering and implementing IAE in the classroom.

Implementation of IAE

Overall, most instructors demonstrated moderate to low perceptions about their use of IAE in the classroom. Few instructors expressed optimism about fully reviving all elements of IAE, yet most instructors articulated their belief that they could at least implement some aspects of IAE. Ned stated, “I think we can implement some aspects of it, such as the idea of being practical and

teaching what people require.” Mathew proposed the blending of IAE with the current educational paradigm, known as the Applied Science Model; he suggested that instructors “could borrow some of the features of The Craft model and incorporate them into the Applied Science Model.” Mathew combined these models in his own lesson by teaching students about theory through practical activities, such as planning a class. Likewise, Patrick proposed that “the philosophy of education can be half-Indigenous and half-western.” He sees IAE as the blending of theory and practice as “theory and practice go together.” Patrick connected theory to practice by engaging in the traditional Indigenous method of storytelling, which provided a practical means of learning.

In addition to discussing the general or theoretical aspects of retrieving IAE, some instructors mentioned specific content areas in which they can implement IAE. Ned elaborated that African students should learn about their own geography and history rather than those of westerners; he pondered, “why shouldn’t you teach me about the wars we have had in Uganda? Maybe they would make more sense if I will know where I have come from.” Craig asserted that “the integration of IAE pedagogy could help to bridge the gap between theory and practice” in order to solve “the disconnect between the skills of graduates and those required by the labor market.” In fact, Craig made efforts to bridge this gap when he connected students directly to schools and curriculum centers, encouraged students to practice real-life skills, and taught students the needed skills, such as problem solving, communication, creativity, and collaboration. Like Craig, Mathew indicated the role of IAE in linking students to the labour market through the idea of on-the-job training. Mathew provided students with some aspect of job training when he required them to consult with industry experts, design a language class, and teach to peers, all of which comprise tasks that they perform in their careers.

Several instructors discussed distinct strategies for implementing IAE. Patrick revealed that “we have used aspects of African Indigenous philosophy” in certain classes, thus showing positive

hope for further implementation. Some of the respondents related IAE to the requirement for mentorship. Ned mentioned that he “would seek collaboration with community schools...[and] attach each student to a mentor.” Similarly, Mathew mentioned the need to assign students to a specific teacher, so that students “could move with their teachers...they could accompany their teachers to classes and to the staff room” rather than just practicing their classroom instruction skills. While the first two instructors discussed the teacher as a mentor, Craig referred to outside experts as mentors. Specifically, he expressed his plans to “regularly invite experts...into [his] class to share with the students.” Similarly, Carlton expressed his desire to “engage with the local people, such as herbalists and elders, as they have the knowledge” and Patrick proposed inviting farmers to “talk to the agricultural students about how they have managed.” Therefore, participants discussed the idea of implementing IAE through the concept of internal or external mentorship.

In addition, many instructors related the implementation of IAE to enhancing community connections. Carlton proposed that a return to IAE meant “break[ing] the walls of the university so that people from the community can join us” and Patrick echoed this imagery when he mentioned the need to “open the doors or link the walls to the community.” Ned mentioned that he would “allow [his] teaching and students’ learning to happen within the community and be able to identify various community members who are subject matter experts to lead the coaching.” Similarly, Craig articulated his plans to “require [his] students to visit specific organizations.” Based on Craig’s classroom observations, he had already required his students to shadow expert teachers and other professionals. Steven insisted that he “would develop a database of community leaders, community schools, community businesses and enter into collaboration with them with an interest of encouraging them to be part of the college and [his] classes.” While the other instructors offered hypothetical scenarios for community involvement, the team teaching approach of Carlton and Patrick related to IAE because, in Indigenous African society, team teaching “makes sense against

the background of a conversational and co-operative African environment...where people work on projects together.” These instructors’ collaborative efforts displayed the aspect of cooperation while their use of storytelling attested to the “conversational” nature of education. Although these participants neglected to explicitly involve the community, their approach mimics the community atmosphere within the classroom.

A few instructors mentioned the curriculum in conjunction with IAE. Patrick and Carlton stated that the curriculum alienated students from IAE because it was “decontextualized, abstracted from real life,” therefore insinuating that the curriculum should include aspects of Indigenous life. More specifically, Craig argued that curriculum designers “need to integrate some of those basic principles of Indigenous education in the main stream curriculum.” Similarly, Steven stated that instructors are “trying to come up with the curriculum” that involves IAE and should “try to involve the stakeholders to determine what is missing.” Some instructors also mentioned pedagogical approaches that incorporate IAE. Craig suggested “encouraging [his] students to carry out individual/group projects addressing real-life...problems.” The classroom observations showed that Craig had already split his students into groups and assigned them to improve upon existing problems, thus showing his commitment to his words. Despite his pessimism concerning the retrieval of IAE, Steven asserted that with IAE, “students can use that knowledge to solve their problems.” He also pointed out that with both AL and IAE, “student learning should produce something of value or tangible that can be shared with their communities.” From this perspective, a few instructor responses demonstrated the connection between IAE and AL.

Despite the overwhelming consensus that IAE offered many benefits, a few participants pointed out disadvantages to this method. Mathew discussed the fact that IAE assumes that a teacher, mentor or elder possesses expert knowledge of not only the subject matter but also about the way of teaching. He elaborated that “sometimes experience does not make someone a master

teacher,” especially if the “teacher...has stagnated in the profession.” This response indicates the importance of not only practical experience but also theory, which echoed earlier responses, such as those by Patrick and Craig, indicating that IAE must combine theory and practice. Moreover, Carlton pointed to the incompatibility between IAE and modern society in stating that rural or pastoral times have passed: “we cannot go back to the garden of Eden.” Thus, the IAE element of mentorship and its primitive elements contain some drawbacks, so instructors implementing these approaches need to tailor it to present circumstances, which reflects Craig’s earlier response about adapting IAE to the needs of the time.

Category 4: Perceptions of Possible Improvements

The final major category concerns the instructors’ perceptions of possible improvements in the teaching and learning process. This topic has been divided into several subcategories based on ideas that emerged from the responses of various participants.

Increased Funding and Resources

At various parts in their interviews, the vast majority of professors concurred that Makerere requires greater funding and resources. During his lecture to students as well as throughout his interview, Ned cited funding and resources as one of the main culprits preventing real-life learning from happening at Makerere. Mathew concurred with Ned by mentioning that the university should devote more funds for the continued education of professors. He stated, “I would have loved to take my master’s degree in ICT education technology, but the university said that it does not have the money.” Whereas Ned associated the lack of funding with his inability to purchase resources for student-centered learning, Mathew related the monetary shortages with inadequate instructor education. Similar to Ned, Steven implied that increased funding would allow instructors to purchase resources or because “the resources that we need for teaching are very expensive.” Hence, several instructors believe that money shortages diminish the quality of teaching and learning.

In addition to highlighting the paucity of funds and resources, some instructors mentioned that Makerere requires better management of existing resources. Ned hinted at the fact that the university administration requires more efficient management of its funds. He stated, “let them make teaching and learning a priority.” Ned also pointed to the poor usage of resources. When discussing the use of booklets for written examinations, he expressed that he has “rarely gotten a student writing even half of the booklet.” Based on the previous paragraph, which discussed funding limitations, the management of resources may account for part of the monetary issues hampering education. Therefore, the participant responses indicated the need to not only increase funding to the university for various purposes but also to use available funds more efficiently.

Improved Infrastructure and Facilities

Several participants mentioned improved infrastructure and facilities. For example, Ned stated that “universities should put in place the necessary infrastructure, which includes teaching and learning materials like the public-address system” as well as “necessary text books, ICT, and computer labs with a wireless network.” Ned’s own classroom demonstrated poor infrastructure, with dim lighting and minimal resources. Similar to Ned, Steven repeatedly alluded to the lack of space and poor condition of the rooms. Mathew also mentioned the poor internet bandwidth and connectivity as well as the fact that “although the computer lab has over 100 computers, more than $\frac{3}{4}$ of those computers are not working” and “the ICTs are not connected to our main lecture rooms.” Steven supported Mathew’s assertion by stating that “sometimes the emails are not working for the whole week.” These responses indicate that both the existence or presence of such infrastructure as well as its maintenance or upkeep represent concerns for the implementation of AL.

Improved Hiring, Retention, and Compensation for Instructors

Another major area that emerged from the interviews involved the hiring and retention of teachers. A few professors attested to the requirement for more staff support, especially teaching

assistants. Ned discussed the need to “employ more lecturers” and pointed to the lack of support in the form of teaching assistants. He stated that “there is no money to recruit tutorial assistants.” Mathew concurred with Ned, suggesting that “the university must invest in human resources,” especially “staff units that will fill in for” colleagues on sabbatical, educational, or sick leave. In conjunction with the paucity of instructors and support staff, some of the participants pointed to the huge class sizes, which suggested the need to hire more instructors for managing the larger student numbers. Patrick asserted that “we teach big classes; last semester, the largest group had 1076 students.” As a result of these large classes, instructors struggle to implement student-centered learning, especially without support staff. Steven stated that Makerere instructors are “responsible for about 800-1000 students without any help,” including teaching assistants. Consequently, Mathew mentioned that his initiative to implement ICTs has been limited by “the huge numbers of students, especially at the undergraduate level.” Therefore, several professors suggested that Makerere hire more instructors and support staff to help with large classes.

In addition to proposing an increased staff, some participants mentioned the need for higher quality teachers. Mathew suggested that “the people we admit into the profession must be of top quality.” Along the same lines, Steven stated that, “it is important to ensure quality, so whoever is teaching is qualified.” Not only did the respondents indicate the need for higher quality instructors, but they also mentioned that the staff must genuinely love teaching. Steven elaborated to state the need for motivation among teachers: “when people who are there are motivated, such as a hungry student or a hungry teacher, it is good.” Likewise, Patrick remarked that “some people here are not here because they want to be here,” thus attesting to the lack of motivation among teachers. Carlton also pinpointed the instructors themselves as having some accountability in implementing AL: “everyone should start from where they are...if you are a lecturer...you are [part of the] change

agents.” Based on Carlton’s statement as well as the need for higher quality and motivated teachers, the participants’ responses indicate that more qualified instructors will help to create change.

Orientation and Training

The vast majority of participants concurred about the need to provide orientation for new instructors and additional training for existing professors. Patrick cited “exposure” as the key to helping instructors change to student-centered methods. Ned stated that Makerere should “train the instructors in the appropriate or up-to-date methodologies” because “some of them are teaching the way they taught 20 or 30 years ago.” In agreement with Ned, Craig mentioned that “teachers teach the way they have been taught,” thus highlighting the need to reorient teachers in new methods. In concurrence with Ned and Craig, Carlton states that “there is a strong need for professional upgrading” to “remain updated on current trends.” Due to his success with training abroad, Craig suggested “exchange programs...to see the best practices happening around the world.” Therefore, instructor responses indicate that Makerere needs to provide internal and external training at both the outset of the instructor’s career as well as ongoing professional development.

In addition to discussing the need to orient instructors in student-centered learning approaches, some of the professors mentioned the necessity of retraining the students to accept a new approach to teaching and learning. Ned asserted that Makerere needs to orient students in the new way of learning: “you need to orient them into the new teaching and learning methodologies.” Similarly, Craig articulated that “many students find it difficult to adjust to” the student-centered learning and “students have become increasingly lazy,” whereas Patrick mentions that the lecture method “creates laziness.” These comments suggest the need to break the habit of dependence on the lecture method. Carlton actually spoke of his efforts to orient the students into the new way of teaching and learning: “at the beginning of the semester, we give students an overview about our approach.” Some of the students still displayed reluctance to learn from these methods, as, despite

Carlton's attempt to engage students in a whole-class debate, some of the students remained uninterested and disengaged. Therefore, students require some type of orientation to student-centered learning in order to understand their responsibility within this new approach to learning.

Revised Philosophy

One area repeatedly mentioned during the interviews included the area of philosophy, which encompassed aspects such as attitude and motivation. Some participants highlighted the inertia or resistance to change that many professors experience in adjusting to new teaching approaches. Craig underscored that “teachers are generally very conservative. If people feel that a certain method has worked for them, they don't want to change.” Likewise, Carlton mentioned the need to change instructors' attitudes: “you do not see real effort, and the lecturers themselves need a change of mindset.” A few professors mentioned that society holds a detrimental attitude towards the teaching profession. Mathew emphasized that “people have a negative attitude towards education as a profession...[Ugandans] feel that people who have not performed well can still join the profession.” Similarly, Carlton hints that students applying to Makerere perceive teaching as a type of last resort, as “in the School of Education, many students get accepted but they reject us in favor of FEMA.” Steven interpreted this negative attitude as a lack of motivation; he stated that “the person working now is not committed but wants to keep life going on.” In sum, these comments indicate that Ugandan society holds a negative attitude towards the teaching profession, which ultimately filters down to the instructors and students, affecting their motivation. Thus, instructors suggest a wholesale attitudinal change about university teaching and learning.

Changed Business Model

Not only did instructors mention the need for individual and societal changes in attitude but they also discussed the need for philosophical change at the level of educational administration, which includes both the government and the university admin. Ned elaborated that “Makerere has

failed to treat the customer as king, yet in the business model, a customer is king.” Ned’s response implies the need for Makerere and other African universities to adopt a more student-centered approach not only in the administrative structure but also in the classrooms. Carlton echoed Ned’s statement when he critiques Makerere’s current “system,” where “they wanted to produce teachers for the existing system, like eggs in a tray or bottles in a crate. They wanted everybody to fit where they are supposed to fit so that the whole system works efficiently.” Conversely, he asserted the need for change when he states that rather than comparing “order in the classroom to the order in the factory,” the school system “need[s] a kind of creative economy, where “we do not need buildings.” Patrick provides a very similar description of the education system when he stated that schools “got stuck in the industrial paradigm, the industrial era, where schools produced for industries or factories” but now “we are living in the entrepreneurial world.” The recognition of the misalignment between the school system and society points to the need for change at the top.

New Policy Development

A few professors commented on the need to develop new policies. Patrick mentioned research as the first step towards implementing change; he stated that universities “need to do a lot of research in regard to teaching and learning” to “provide...evidence that will be a basis for changing things and disseminating information.” Specifically, he pointed to the need to “compare between those that tend to get taught by traditional methods and those that now learn from the interactive methods” to “change many people.” Ideally, the results of this research will highlight the need for new policies, which can subsequently change governmental, administrative and societal attitudes towards education. While Patrick focused on the need for research as a precursor to policy implementation, Mathew discussed policies pertaining to instructor credentials. He explained that Makerere, and other universities need to “mak[e] written policies,” especially about the rules for instructors obtaining their PhD within six years of their hiring. In addition, Mathew discussed

policies regarding the strengthening of ICT infrastructures, staff training, and orientation for newly appointed staff. These policies, especially those concerning the qualifications and training of staff, will likely improve the quality of instructors and thus the quality of teaching and learning.

Greater Stakeholder Collaboration

Some professors highlighted the need for stakeholder collaboration. Mathew expressed the need for “all stakeholders to work together” before citing the fragmented approach amongst governmental bodies and organizations. Specifically, he suggested that the National Council for Higher Education, which performs oversight duties, should “monitor the universities” for both teaching deficiencies and resource shortages prior to communicating these needs to the parties responsible for improving these situations. Carlton also pinpointed the need for greater oversight when he suggests that “nobody from the ministry cares about the quality of education; nobody bothers about value addition.” In addition to discussing the collaboration among external stakeholders, Mathew proposed the need to provide stronger interdepartmental collaboration “to [better] organize the teaching load.” The need to improve the allocation of teaching responsibilities suggests not only the need to better manage current resources but also the requirement for additional resources, including money and staff.

Greater Administrative and/or Government Support

The majority of instructors highlighted the requirement for improved support from the government and university administration. Ned discussed the need for “the support of our bosses, the university management, and university council.” He also mentioned the need for more support during his own lecture, where he tells students to blame the education system rather than themselves for the lack of meaningful learning. Steven supported Ned’s assertions when he stated that Makerere requires greater “support from the government.” He elaborated that “sometimes that government looks at us like we are in a different world from them.” Likewise, Carlton stated that

due to the “top-down structure” that governs education, “the education system does not know how to change, so the entire system is lagging.” This statement indicates Steven’s belief that the government lacks knowledge or insight not only about the workings of the university but also about its need for assistance. Moreover, Steven articulated the need for “huge support from college education managers, education policy makers, curriculum developers...and government” to implement AL. Overall, the participants indicated that along with university administration, the government represents another key stakeholder that needs to participate in the wholesale change associated with the education system.

Collaboration with Business and Corporate Sector

All participants provided at least some level of feedback about the way in which Makerere University and its instructors can collaborate with the labour market to improve the process of teaching and learning. Steven attested to the current lack of support from the labour market, who “just wait to receive our products.” Accordingly, many instructors suggested the formation of partnerships between the university and employers. Ned asserted that the private sector should “tell [the instructors] what skills the employer wants and how [the university] can partner with them in terms of funding” and Patrick advocated for employers to “tell [the university] which kind of graduate they expect.” Consequently, Mathew stated that he and his colleagues “try, as much as possible, to interact with the administrators, head teachers, deputies, and directors of studies” to “get feedback from the employers” about student performances. In line with Ned’s idea of industrial funding, Craig suggested “partnerships with the public and private sectors in terms of providing opportunities for internships and industrial training for the trainees.” This training, he elaborated, would provide “ground/space for testing innovative ideas...in the field.” Therefore, most participants highlighted the need for partnerships with the labour market to improve education by relating it to the real world and the creative economy.

In addition, some professors emphasized the active role of the community in improving postsecondary teaching and learning throughout SSA. Carlton attested to the need for greater integration between the school and the community, such as in “a garage where they are training young people to be mechanics.” Similarly, Craig expressed that instructors themselves should connect with outside resources: “it is very important to utilize resources in the local community and work with the mindset of the people.” Steven mentioned community partnerships by suggesting “providing community business support services...conducting training needs assessments and designing training programs for different community businesses.” He argued that such community-based initiatives would “help [his] students to do some work with the business community once they finish their degrees.” While some of the other participants expressed their desire for financial or informational support from employers or businesses, Carlton asserted that Makerere “need[s] to bring real entrepreneurs into the classroom...to talk to students, hopefully motivating them to change their attitude.” Patrick concurred with this statement, as he believes that Makerere should “let the business people come and talk to the professors...and then reform practice.” The overwhelming consensus from the participants advocated for more involvement with not only employers and entrepreneurs in the business and corporate sector but also community members.

Summary of Findings

This final section of the thesis provides a brief summary of findings that condenses the interview responses and classroom observations to provide answers to the four research questions articulated in this dissertation. Since each category corresponds to a research question, the summary of each category essentially provides a direct answer to each research question guiding this study.

Research Question 1: Instructors’ Perceptions of Pedagogical Approaches

All six participants agreed that Makerere failed to provide a proper orientation for new instructors entering the university. In particular, several professors mentioned that the

administration or department head will simply provide basic course information and immediately direct the new instructor to the classroom without any kind of preparation. Two of the instructors mentioned their belief that Makerere administration expects instructors to have prior pedagogical knowledge, which may explain the lack of orientation. As a way of mitigating this hasty orientation, some of the participants mentioned their reliance on mentorship or shadowing other instructors. Specifically, these instructors explained that they talked to senior colleagues, observed other professors, or learned under the guidance of experienced instructors.

In addition to a lack of formal orientation, most participants attested to a lack of methodological training at the university. Although the university had planned or even designed wholesale training programs, certain barriers, including funding, competition, or administrative obstacles, had prevented their implementation, resulting in the reliance on short-term programs such as workshops, seminars, and conferences. To circumvent the lack of pedagogical training, instructors learned through shadowing or relying on their prior pedagogical knowledge. In addition, a few of the respondents had attended conferences or workshops outside of Makerere.

The instructors varied widely in their choice of teaching methods. All instructors recognized that student-centered learning methods represented the ideal choice, but several participants cited barriers or obstacles preventing or limiting their usage of these methods, including money, material resources, infrastructure, class sizes, and time limitations. While a few instructors used mainly student-centered methods, others mostly relied on the traditional, lecture-centered approach. The vast majority of instructors reported that they either used a combination of interactive and teacher-centered methods or that they had used both methods over the course of their teaching career, starting with the teacher-centered method and gradually evolving to incorporate interactive teaching strategies. In the vast majority of cases, the classroom observations of all instructors echoed the responses provided in their interview regarding their teaching methodologies. The classroom

observations demonstrated that while most professors used either mainly student-centered or teacher-centered methods, all instructors used at least some strategies of both methods.

When implementing student-centered learning in their classrooms, instructors used both high-technology and low-technology strategies. Some of the high-tech approaches included Google Docs, internet research, and e-education platforms or learning systems, while some of the low-tech methods included collaborative group work, role play, peer teaching, debate, storytelling, and presentations. In particular, two of the instructors interviewed used the team-teaching approach to facilitate student-centered learning, while two other instructors mentioned this method in their interviews or revealed it in their classrooms. In the class observations, the instructors implementing student-centered learning assumed the role of the facilitator, where they provided guidance to students through one-on-one or group consultations, the sharing of materials or resources, and the provision of hints or tips for improvement.

The instructors discussed the advantages and disadvantages to both teacher-centered and student-centered approaches. The drawbacks to the lecture-centered method included one-way communication with students, lack of collaboration, lack of exposure to the real world, impeded problem-solving abilities, and lack of student motivation; many of these aspects refer to the real-world skills needed for today's labour market. Consequently, all instructors concurred that lecture-centered teaching results in poorer learning and student outcomes. However, some participants mentioned disadvantages to student-centered learning, mainly, students' reliance on the lecture-centered method of being spoon-fed notes. A few instructors highlighted the extensive time, energy, and financial resources devoted to planning student-centered learning opportunities as a disadvantage, while a couple of others referred to the laziness in collaborative learning groups.

All instructors concurred that Makerere provided them with complete pedagogical freedom to use the teaching methodology of their choice. However, this freedom comes with drawbacks,

including the lack of administrative support required to implement the selected teaching approach and the lack of oversight or quality assurance to provide professors with feedback on their teaching. The lack of administrative support included several aspects such as funding, material resources, and training. In contrast with the majority, one professor mentioned the positive benefits of pedagogical freedom, which allowed the professor to feel empowered as an expert in his field.

The consensus among professors expressed that while the lecture method fails to connect students to the real world, student-centered or interactive teaching relates to real life. Three of the six instructors, which constitutes half the sample, clearly illustrated a lack of alignment or mismatch between lecture-centered learning and the real world. Many instructors agreed that lecturing fails to engage the student by considering his/her opinion or constructing his/her learning. Professors elaborated that teacher-centered learning fails to prepare students for the real world and creative economy as well as the skills required within it. In contrast, student-centered learning allows students to construct their own learning and connect with the real world. A few of the instructors had required their students to engage in project-based learning by collecting data from the community and using that information to solve a realistic problem and share the solution with an audience. The team-teaching approach allowed instructors to encourage the existence of multiple viewpoints about the world, which validated student learning. However, a few instructors mentioned the disconnection between the student-centered methods that they use and the standardized assessments that the university mandates. This issue results in students failing tests despite possessing the real-world skills taught by their professors.

Several instructors mentioned that outside of the classroom, the mandatory school practice component connects students to the real world. School practice requires that students shadow instructors throughout their daily activities, including teaching, planning, yard duty, extracurricular activities, and staff interactions. One instructor even mentioned that some of the instructors invite

their students to participate in national conferences to improve their own teaching knowledge. Beyond school practice, a few of the instructors attempted to solidify the connection between the classroom and the outside world. One participant mentioned the idea of teaching as a foundational step towards other careers, while another professor mentioned taking students into the schools to directly observe teachers interact with other students. As mentioned, two of the professors required their students to collect data from the community to solve real-world problems, thus implicating the notion of learning outside of the classroom. The involvement of the community in learning, along with the real-world skills demonstrated in classroom observations, shows participants' beliefs that teaching must involve the outside world.

Research Question 2: Instructors' Perceptions of AL

The vast majority of participants demonstrated a solid knowledge of AL as a teaching methodology. Instructors highlighted various aspects of AL in their personal definitions, including real-world or real-life teaching, communities, sharing, uniqueness of learners, empowering, construction of knowledge, and combination of practical and theoretical knowledge. Among these keywords or phrases, the most highlighted aspects of AL involved the realistic aspect, the sharing or constructing of knowledge, and the involvement of communities. However, the interviews and classroom observations revealed a few hints that instructors may require additional training or knowledge about AL, as two instructors struggled to integrate this method in their classrooms and a few participants focused on student-centered learning in general or even personalized rather than AL in providing their definitions.

In fact, all instructors mentioned the need to increase their knowledge of AL in various ways, such as knowledge sharing or collaboration among instructors; professional development that involves research on scholarly literature; support from school administration, policymakers, and the labour market; collaboration or knowledge-sharing with other postsecondary institutions; and

national and international conferences or educational programs. The vast majority of instructors explained that they acquired their present knowledge of AL from external sources, such as online courses, local conferences, and study abroad programs. This reality may suggest the lack of internal opportunities to increase their knowledge of AL.

Furthermore, all professors agreed that AL represents an important part of the teaching and learning process. Participants highlighted various aspects in conjunction with AL and its importance, including its crucial role in enhancing labour market skills, such as communication, collaboration, creativity, problem-solving, critical thinking, and interpersonal relations. In fact, a few participants even highlighted the importance of AL for enhancing a students' appeal to employers within the framework of the creative economy. Other instructors mentioned the aspect of assessment and the need to align assessment approaches with AL activities. Finally, a few of the participants agreed that AL increases students' motivation to learn as well as their interest and engagement in the material, which was supported by most of the classroom observations.

In their interview responses and classroom observations, professors reported or revealed at least a minimal use of AL. The most common means of implementing AL occurred through collaborative group activities and presentations. Some of the instructors cited barriers to using this type of teaching, including the lack of participation in collaborative groups due to large class sizes and the inability or reluctance of students to answer instructor questions in large-group discussions. Instructors that implemented AL used strategic questions, expressive nonverbal gestures, and movement throughout the classroom. Some participants commented on their observations of other instructors using AL despite the presence of barriers. These strategies included the use of team teaching, the acceptance of financial burden to purchase needed resources, and the extensive use of personal time to plan AL opportunities. Although many of the instructors believe that most of their colleagues still use the lecture-centered method, the majority of the instructors used learner-

centered methods in their classrooms. A few of the instructors mention that they or their colleagues have gradually shifted towards student-centered methods, which may explain this discrepancy.

The respondents provided different solutions for implementing AL, including staff training, the provision of resources, and team teaching. However, two of the instructors emphasized the importance of utilizing the available resources more efficiently to deliver AL opportunities. Many of the participants highlighted greater stakeholder involvement, including a wholesale philosophical change in education, policy development, curricular revision, internal university support from education managers, and assistance from the business and corporate sector. Finally, a few of the participants mentioned that instructors have the power to make changes on their own through the efficient use of resources, initiating their own learning, and orienting students to the method of AL.

The participants mentioned several barriers to the implementation of AL. First, the majority of instructors mentioned financial, material, human, time, and infrastructural resources, including the mismanagement of available funds and resources; however, one instructor insisted that sufficient funds were present for using AL and another mentioned the presence of sufficient resources to implement this method. Similarly, some instructors stated that large class sizes and high workloads prevented them from planning AL opportunities. Furthermore, they emphasized minimal administrative support for implementing AL, which included a paucity of funds for international travel, local facilities and resources, and lack of oversight or quality assurance. However, a few participants contradicted this dominant belief by mentioning occasional donations from international organizations and funding for studying abroad. Finally, the last category of barriers involves personal attitudes and philosophies that encouraged instructors to continue in the present mindset and increase their resistance to learning new teaching methods. Several solutions were proposed for dealing with the aforementioned barriers. Among these suggestions, the

provision of funding and material resources, internal and external instructor training, administrative support, collaborative teaching, and a changed mindset represented the most frequently cited items.

Research Question 3: Instructors' Perceptions of IAE

The instructors revealed differing amounts of knowledge about IAE. Most instructors articulated an understanding of IAE as a practical method that involved students in learning and taught required skills. A few instructors mentioned the role of mentorship and the generational transmission of knowledge. One participant discussed the importance of language in IAE while another respondent suggested that IAE involves both theory and practice, which contradicted the dominant view of IAE as a largely practical learning method. In addition to highlighting its practicality, instructors related IAE to the creative economy through its role in providing important skills relating to real life, such as involving a collaborative or community focus, enhancing communication, and solving problems. Furthermore, some of the participants discussed IAE from the perspective of a holistic framework that interacted with all aspects of African life. One participant in particular related IAE to the Craft Model, which advocated an Indigenous version of on-the-job training. The holistic framework of IAE related to the Craft Model because students learned all aspects of their profession rather than a single isolated skill or duty.

Most participants concurred that Africa lost much of IAE during the process of colonization. The instructors maintained that European colonists forced Africans to learn about western society, which alienated them from their own cultural roots. This uprooting translated to all areas of life, including education, which the instructors disregarded the needs of Africans and influenced instructors and students to emulate modern, westernized culture rather than seek their traditional heritage. Due to the loss of IAE, some instructors believe that only a partial retrieval is possible. A few of the participants expressed their belief that IAE is impractical in modern society but that some of its fundamental tenets can be used in the contemporary classroom, including the concept of

mentorship, the inclusion of practical activities, and the involvement of community. One of the instructors stated that even a minimal retrieval of IAE would require extensive research, for which little data exists due to the lack of interest in this topic.

The instructors expressed some levels of optimism about their ability to implement IAE in the classroom. Participants mentioned integrating IAE with aspects such as teaching students practical tasks and required skills for the workforce, thus addressing the misalignment between education and the labour market. A few respondents mentioned the idea of combining IAE with the current western philosophy of education to enhance the integration of theory and practice.

Instructors also highlighted the integration of IAE into content areas such as geography, history, and philosophy. Furthermore, IAE can be implemented through the provision of on-the-job training and mentorship as well as through consultation with experts and collaboration with other schools in the community. In particular, several instructors discussed the theme of breaking the walls between the school and the community as a way of invoking IAE. These community initiatives include inviting experts into the classroom, allowing students to visit workplaces, and shadowing experts. Finally, the instructors discussed the integration of IAE into the curriculum. They asserted that the lack of IAE alienated students from their culture and proposed recovering aspects of Indigenous life.

In spite of the benefits associated with IAE, some of the participants highlighted drawbacks with this method. One interviewee mentioned that the mentorship role treats the mentor as a person possessing expert knowledge, when, in fact, they may lack the motivation to transmit the material to the next generation or they may have stagnated in their profession. The second drawback involves the fact that while IAE fulfilled the educational needs of hunter and gatherer societies, the economy has become modernized and IAE, which trains students for a specific craft or trade, no longer applies to the modern world. By modifying IAE to fit the modern world, however, it can help to connect students more directly to the skills required for their future careers.

Research Question 4: Improving Teaching and Learning in Uganda and SSA

Instructors mentioned several ways in which teaching and learning can improve in Makerere University, Uganda, and SSA in general. First, most participants mentioned the need for greater funding, which will subsequently purchase resources, allow for the hiring of other staff, improve the infrastructure, and allow instructors to obtain education abroad. While many instructors argued that funding shortages impede quality of teaching and learning, a few participants mentioned the need for more efficient management of available funds and resource. In terms of resources and infrastructure, participants mentioned textbooks, notebooks, computers, blackboards, and the public-address system as well as internet connectivity, computer systems, and bandwidth.

Furthermore, several participants highlighted the need for additional instructors and support staff as well as a higher quality of faculty members. At least half of the instructors mentioned the large class sizes, which indicated the need for more staff and teaching assistants and impeded attempts to implement student-centered learning. Some instructors proposed the need to hire top-quality instructors with the genuine motivation to teach rather than instructors that failed to find jobs in other disciplines or other areas of the university. Ironically, a few of the participants actually took this route to teaching, which makes this comment an interesting one to highlight.

Orientation and training represented another area that required improvement. In particular, most participants concurred that teachers needed to learn student-centered methods, especially the older instructors that use the lecture-centered methods from their era and resist the idea of change. Instructors highlighted both internal training in terms of courses and workshops as well as external training initiatives such as study abroad programs, interuniversity collaborations, and conferences. Professors also mentioned orientation in conjunction with students, who lack exposure to student-centered learning and tend to rely on memorizing notes.

Participants mentioned the need to change the mindset surrounding education, especially in terms of the philosophy and the business model. In addition to discussing a lack of knowledge about newer teaching methods, instructors also articulated that some of their colleagues exhibited the reluctance to adapt to different approaches and remained unmotivated to put effort into teaching. Part of the issue may result from a negative societal attitude towards the teaching profession and education, which students perceive as a last resort when they fail to gain admission to the program of their choice or obtain a job in their desired field. Another similar and related issue involves the bureaucratic mindset associated with Makerere's administration, where they demonstrate the same educational philosophy that they embraced at their inception in 1922: the need to provide a homogenous approach to education that trains all students in the same organized fashion. A few of the professors acknowledged the need to adjust this model to prepare student for the creative economy by reinforcing ties with the community rather than existing in a separate sphere.

Other areas at the top that require improvement involve the development of policies from education ministries and governments, greater administrative support, and improved stakeholder collaboration. In order to improve educational policies, governments need to conduct research into different methods of teaching and ideally find evidence that student-centered learning provides the best outcomes. Hopefully, such research will provide evidence-based data that informs the development of new policies regarding the need for student-centered learning in postsecondary classrooms. In addition, other participants mentioned new policies for instructor credentials, funding, resources, infrastructures, staff training, and orientation. Other interviewees mentioned the need for more internal support from university administration, such as the provision of training opportunities, funding, resources, infrastructure, and oversight. Finally, some professors emphasized the need for all stakeholders to work together rather than in isolation from one another.

Finally, professors discussed the role of the corporate sector and entrepreneurs in improving education. Some of the interviewees suggested the need for partnerships between the university and employers or entrepreneurs. This partnership can provide the universities with internships, funding, and information, especially pertaining to their expectations for graduates' skills and abilities. The internships would ideally allow students to apply their theoretical skills in the field and try innovative ideas. Many of the participants also discussed the role of the community and using the local resources to help students and professors. These resources included support services, training needs assessments, and expert knowledge from the field.

Recapitulation

This chapter has provided a cross-case analysis of the participants' responses as they pertain to each of the four major research questions as well as some of the sub-questions. While the previous chapter, Chapter Four, analyzed the individual themes that emerged from each of the instructors' interviews, this chapter compared the respondents' answers under each of the major interview categories. The next chapter, Chapter Six, provides a discussion that relates the findings in Chapters Four and Five to the literature review presented in Chapter Two. Specifically, this chapter highlights major similarities and differences between the study results and the prior research as well as identifies new ideas that have emerged from this investigation. The final chapter, Chapter Seven, suggests the implications of the findings for several areas of SSA schooling and proposes ideas to begin a conversation amongst the stakeholders of education along with presenting the limitations and suggestions for future research as well as with a summary and final reflections conclude the dissertation.

CHAPTER SIX: DISCUSSION OF RESULTS

The previous two chapters presented the results of the interviews and classroom observations. This present chapter provides a discussion that compares the study findings to the research discussed in the literature review section. Specifically, this chapter relates the interview results and classroom observations to the previous research in order to address study purpose and its set of four objectives. In doing so, the aim of the chapter seeks to align the research findings with the original purpose of the study, which attempts to gain knowledge about SSA PSE instructors' perceptions of their understanding of student-centered methods such as AL and IAE. The final part of this chapter provides a summary of the unique contributions that this dissertation has made to the literature on SSA PSE.

Discussion

In order to directly address the purpose of the study, the discussion is organized around the four objectives emanating from the study purpose. Specifically, the study findings and literature review answer crucial questions pertaining to the study purpose and objectives.

The Nature of Postsecondary Pedagogy and Instructional Techniques in Uganda

The first objective aimed to ascertain the nature of postsecondary pedagogy and instructional techniques in SSA. The six instructors from Makerere reported that professors at the university used some combination of lecture-centered and student-centered teaching methods. While two instructors stated that they predominantly used student-centered methods, only one of these instructors actually implemented the teacher-centered lecture method in the classroom observations. This discrepancy suggested that perhaps some instructors may lack an accurate perception of their teaching style, which points to the lack of knowledge about pedagogical methods and/or the need for greater self-awareness among university instructors. Another reason for this observation may derive from the research of Argyris and Schon (1974), who found that

professional competence depends on the capacity to develop new theories for new situations and flexibly adapt to new circumstances as necessary. The professor that used student-centered teaching may have adjusted his approach to accommodate the new circumstances, which involved a smaller class. Hence, classroom conditions may play a role in helping teachers to decide between different pedagogical methods. This observation aligned with the interview responses that resources and facilities comprise a major determining factor in instructors' decisions to prioritize one teaching method over the other (Bunoti, 2010; Traxler & Dearden, 2005). In conjunction, this discrepancy points to the need for greater instructor education, training, and orientation as well as creating classroom conditions more conducive to student-centered learning such as AL and IAE.

In addition to the two instructors that reported using mainly lecture-centered learning, two other instructors stated that they alternated between teacher-centered and student-centered learning or that they implemented a combination of both styles depending on the conditions. These instructors made use of technology and interactive teaching methods to facilitate student participation. Despite the barriers cited by most instructors, these professors used the limited resources available to their fullest capacity and used low-technology approaches for involving students in the classroom activities. Literature reports support this finding, showing that instructors can use high or low technology to implement interactive learning in SSA (Conejar & Kim, 2014; Traxler & Dearden, 2005). The discrepancy between these instructors and the previous two participants that used mainly lecture-centered teaching styles shows that despite common conditions, professors with the knowledge and the willingness can successfully implement student-centered learning, which points to the need for more training and motivation among professors.

Finally, the last two professors, in addition to one other professor in his classroom observations, used a unique, team-teaching approach to facilitate student-centered learning. Their interview responses, as well as the classroom observations, demonstrated that a collaborative

arrangement allows instructors to combine their personal knowledge, resources, and assets to overcome the barriers impeding student-centered learning. The tremendous success of these two instructors suggests that in resource-deprived areas, such as SSA, instructors can use a collaborative, team-teaching approach to overcome the challenges associated with effective teaching and the mentality that perpetuates teacher-centered learning at the postsecondary level. In addition, a few of the professors reported that their teaching style has changed from mainly lecture-centered approaches to incorporate more interactive methods. This trend represents a positive outlook for the future and provides fertile ground for initiatives that promote a wholesale switch from teacher-centered to student-centered learning in SSA.

The interview responses and observations from this study provided some alignment with the literature, which attested to the dominance of teacher-centered learning in all stages of SSA education (Vavrus et al., 2011). At the postsecondary level, Bunoti (2010) found that PSE instructors still relied mainly upon the lecture method, including the use of lecturing and handouts to teach students. Several of the instructors in this study used lectures and handouts to teach their students. In fact, professors in prior research studies report that they learned their instructional style from their personal educational experience and their teacher education programs (Otaala et al., 2013), which concurs with the interview results, where a few professors stated that their colleagues, especially the older instructors, used the lecture method based on their own education and experience. The literature contained a few examples of student-centered or interactive learning at the university level in SSA (Campbell, 2013; Jaffer et al., 2007; Kandiero & Jagero, 2014), which provides a small degree of promise for implementing this style of learning. In comparison to the literature, however, this study showed that at least half of the instructors implement at least some use of student-centered learning, thus revealing that, in comparison to prior research, this investigation suggests that professors, both by their own admission and classroom observations,

make substantially greater use of student-centered learning. This discrepancy may suggest Makerere's status as an advanced university in comparison to the rest of SSA's PSE institutions (Makerere University, 2016). Nevertheless, the high proportion of teachers that use student-centered learning methods in SSA universities represents a unique finding of this study.

Several instructors mentioned shortcomings associated with the lecture-centered method. The most poignant challenge involved the lack of connection to the real world and the labour market. All instructors expressed that the teacher-centered approach, because of its inability to allow students to construct their own knowledge, impeded the development of the soft skills needed to succeed in the creative economy, including communication, collaboration, problem solving, and critical thinking (Sawyer, 2008). Conversely, the process of lecturing, memorizing, and reproducing lacked the hands-on approach that the labour market requires. In fact, two of the professors stated that supervising teachers at school practice revealed the lack of teaching skills in student teachers. The literature supports this finding, with numerous reports showing that despite completing their PSE, students in SSA still lack the basic skills required for the workforce (Binagwaho et al., 2013; British Council, 2014; Kasozi, 2003; Mamdani, 2007; United Nations, 2011; UWEZO, 2013; Zwiers, 2007). These reports, in conjunction with the interview results and the class observations, show the need to teach students skills that align with today's workforce requirements.

While lecture-centered methods failed to connect students to the real world, student-centered methods enhanced the linkage between school and reality. The main way in which students connect to the real world of work occurs through school practice, which constitutes the practical component of the education program. In particular, four of the six professors mentioned school practice as the link between the academic nature of the university and the workforce. Within the classroom, instructors reported that when students have the opportunity to construct their own learning, they develop the soft skills required for the practical world and the creative economy,

which research reports also suggest (UWEZO, 2013; Vavrus et al., 2011). In particular, two of the instructors used project-based learning, which required students to research real-life situations and solve problems associated with these issues. The interviews with instructors and classroom observations both demonstrated that through this research, students developed collaboration, communication, problem-solving, creativity, innovation, and critical thinking skills while simultaneously working with situations that they will face in their careers. Other instructors used collaborative group work, role playing, debate, and storytelling to connect students to the real world and their prospective careers. Finally, the two instructors that used the team-teaching approach allowed students to understand the world from different points of view. This latter observation coincides with a study by Alidou et al. (2006), who reported that the use of multilingual language models in schools will enhance the readiness of graduates for the job market.

Despite the realistic nature of student-centered learning, the misalignment between interactive teaching methods or activities and assessment methods provided an additional challenge that impeded the use of student-centered learning while also minimizing student benefits from this approach. One respondent mentioned that the necessity of preparing students for traditional standardized examinations forces instructors to return to teacher-centered methods of learning. In addition, another respondent expressed that the disconnection between student-centered teaching and standardized assessment leads to poor student outcomes. A study by Otaala et al. (2013) found that the persistent presence of standardized examinations in SSA universities forced many instructors to rely on teacher-centered learning as a way of training students for the skills required in these examinations, including note-taking, memorizing, and cramming. Unfortunately, as discussed throughout this dissertation, such skills fail to align with the needs of the workforce. The elimination or reduction of these tests may encourage instructors to adopt or continue student-centered teaching methods such as AL and IAE. In response to this problem, Makerere has already

begun piloting a new teaching model that aims to phase out standardized testing and assess students on the competency of their practical skills (Wandera & Otago, 2018). This model addresses some of the curriculum challenges mentioned in the literature (Jaffer et al., 2007; Vavrus et al., 2011).

In addition to the lack of connection with the real world, another disadvantage to teacher-centered instruction involves the inability to form a rapport with students and the lack of motivation to learn through lecturing, handouts, and reading homework. The findings in the literature concur with this observation, as Kandiero and Jagero (2014) discovered that student-centered learning approaches increase students' motivation to learn. However, some of the respondents mentioned some challenges to the student-centered method, such as students' lack of experience with this form of instruction and hence their confusion or reluctance to participate. The decreased motivation to learn via student-centered methods, while contrasting with literature results (Faulkner & Faulkner, 2012; Hein, 1999; Kandiero & Jagero, 2014; Neo et al., 2012; Szczepanski, 2006; Zwiers, 2007) and hence representing a new finding unique to this study, suggests that students lack familiarity with this method. The instructors also mentioned the extra effort required to implement student-centered learning, thus insinuating that both instructors and students required some form of orientation or training to this new method of learning, discussed in further sections.

Although the literature found that the educational philosophies and policies as well as the policymakers and school administrators prevented instructors from utilizing student-centered learning, all six respondents unanimously concurred that Makerere administration provides the instructors with full pedagogical freedom to implement the teaching method of their choice. The body of literature maintains that cultural beliefs positing the teacher as an authority figure (King, 2011; Paludan, 2006) and values of collectivism (Vavrus et al., 2011; Zwiers, 2007) discourage the use of student-centered methods in SSA. None of the respondents interviewed for this study revealed these values in their interviews or classroom observations. Although a few instructors

mentioned the idea of communal values, this discussion occurred in the context of IAE, which will undergo subsequent analysis. The fact that none of the participants expressed the notion of African cultural beliefs or values interfering with the implementation of student-centered learning may result from the passage of time between the literature and the interviews, hence implying that cultural values may have altered in the last decade. However, the lack of philosophical resistance against implementing student-centered learning potentially represents a unique finding of this study.

However, the instructors elaborated that although school policies provide instructors with leeway over their teaching approach, the resource shortages and lack of oversight can encourage instructors to use lecturing. Participants mentioned that because lecture-centered teaching requires fewer resources, expenditures, time, and efforts, they often resort to this method despite their knowledge and/or preference of student-centered or interactive learning. In addition, respondents explained that the lack of oversight or quality control from inside and outside of the university contributes to their reluctance to try new methods because they feel uncertain about their proficiency with unfamiliar methods, thus resulting in their reliance on lecturing. Similarly, the literature attests to the lack of accountability and oversight in SSA education, which results in low instructor quality and poor student outcomes (EFA, 2014; Watkins, 2013; World Bank, 2011). While all of the instructors interviewed demonstrated a genuine desire to teach effectively, they may represent a small sample size that fails to transfer to the general population of SSA teachers and instructors. Nevertheless, the study findings emphasizing a lack of accountability or oversight aligns with the literature about SSA education. The results of the study, in conjunction with the existing body of research, suggests the need to implement greater accountability and oversight along with increased collaboration among the stakeholders of SSA PSE.

Instructors' Perception of AL and IAE as Pedagogical Approaches

The second objective aimed to determine instructors' perceptions of AL and IAE as pedagogical approaches. While the first part of this question deals solely with AL, the second part focuses on IAE.

AL. The instructors provided varying definitions about their perceptions of AL, with most of them demonstrating a basic understanding of the term as it complies with Revington's (2016) definition and some of the 12 elements. Half of the instructors directly highlighted the real-world or real-life nature of this methodology grounded in Revington's (2016) conceptual framework. In addition, instructors mentioned words and phrases or demonstrated classroom techniques that coincided with several of Revington's elements, including 1) a tangible product, 2) community audience, 3) role playing, 4) collaboration, 5) personalized experience, 6) master consultation, and 7) community involvement. The elements associated with planning, including design-back planning, well-defined criteria, and blended scheduling, were neither observed nor mentioned; however, the study omitted the observance or discussion about the planning of learning activities, which means that these elements may have still occurred behind the scenes. Due to the high level of education and the degree of specialization, blended scheduling lacked practicality. Although no student portfolio collections were mentioned or observed, students may nevertheless have compiled portfolios, especially due to the nature of some AL experiences. Apart from highlighting Revington's elements, two other instructors described AL as empowering students, constructing knowledge, and blending theoretical and practical knowledge. In fact, the aspect of constructing knowledge relates to Dewey's (1916) constructivism. These two instructors, while incorporating Revington's elements, expanded their definition of the concept, thus pointing to the possibility of misunderstanding AL as a specialized student-centered methodology.

In addition, all six of the participants expressed their understanding that AL represented an important methodology that they should ideally use. Many instructors related AL to the labor market and the soft skills required for the creative economy. These observations concur with the literature findings, which revealed employers' increasing need for graduates that possess transferable skills (Herrington & Herrington, 2006; Oblinger, 2007; Sawyer, 2008). Respondents directly mentioned or demonstrated the instruction of skills such as creativity, critical thinking, communication, collaboration, and problem-solving, which coincide with many of the abilities mentioned by Sawyer (2008), especially critical thinking, creativity, and collaboration. The classroom observations supported the interview results, with the instructors providing opportunities for students to practice these soft skills through AL activities in the classroom, and, in two cases, the community. Furthermore, participants mentioned the aspects of assessment and student motivation. Two of the instructors expressed concern about the lack of alignment between AL activities in the classroom and standardized or teacher-centered assessment methods. These observations align with the body of literature, which mentions that most PSE in SSA relies on the use of summative assessments (Nsereko-Munakukaama, 1997; Otaala et al., 2013; Ruto & Rajani, 2014; Varvus et al., 2011). Since AL emphasizes the use of formative rather than summative assessments (Fry et al., 2009; Stull et al., 2011), the reliance on standardized assessments in SSA PSE clearly detract from instructors' ability to deliver AL opportunities. The implication of this finding suggests that policy makers and/or educational managers should align assessment approaches with classroom learning activities, which much of the literature states (DFID, 2012; EFA, 2014; Westbrook et al., 2013).

One of the participants stated that the use of AL increased student motivation and his classroom observations bore testament to that fact. Revington (2016) implied that AL increased motivation through several of his elements, including the tangible product, community

involvement, role play, collaboration, personalized learning, and master consultation. In addition, other scholars attested to fact that AL enhanced student motivation (Faulkner & Faulkner, 2012; Hein, 1999; Kandiero & Jagero, 2014; Neo et al., 2012; Szczepanski, 2006). The increased student motivation associated with AL, in conjunction with the lack of motivation that Makerere students experience with teacher-centered learning, suggests that this approach can address issues associated with laziness. While some study participants maintained that students experience motivational issues with AL, which contradicts the literature findings, this apathy likely results from other issues, such as class sizes, resource limitations, and lack of experience with AL, which are addressed in other areas of the discussion.

Most instructors acknowledged the need to improve their understanding of AL and mentioned various ways in which to obtain this information and experience. The lack of completeness in many of the instructors' definitions and a few of the classroom observations supported these assertions. In fact, the literature widely recognizes the general lack of knowledge concerning student-centered learning methods among instructors in SSA and other undeveloped regions (British Council, 2014; Hennessy et al., 2010; Kandiero & Jagero, 2014; Neo et al., 2012; Teferra & Grejin, 2010; Watkins, 2013). Consequently, instructors suggested different methods for increasing their understanding of AL. These methods included individual approaches such as reading or research and knowledge-sharing among professors, echoed in the literature (Potts & Schlichting, 2011; Norodine-Fataar, 2011; Westbrook et al., 2013). In addition, several participants mentioned the need for support from external stakeholders, including educational administrators, policymakers, and the business and corporate sector. These external stakeholders can provide support to instructors seeking to increase their knowledge of AL by making policies that facilitate this mode of instruction, collaborating with other institutions, and funding professional development opportunities, which include international or local conferences and study abroad

opportunities, mentioned in the literature (Kanuka, 2010). Although none of the respondents mentioned distance education (Kangai & Bukaliya, 2011; Kanuka & Nocente, 2002), this remains a potential way of overcoming obstacles associated with insufficient travel funds. One professor even mentioned the need for access to open-source materials, echoed by prior research (European Commission, 2014).

IAE. Moreover, instructors discussed their perception of IAE, the other pillar of the dual framework underpinning this study. Four of the six participants believed that IAE held a practical nature; in fact, three of the professors directly used the word “practical” in their definition of IAE. The literature concurs with the idea of IAE as practical, with most authors contending that with IAE, students learn through observation and experience (Majoni & Chinyanganya, 2014; Ndofirepi & Ndofirepi, 2012) while applying their learning to real life situations (Darisoan, 2012). Two participants referred to the intergenerational transmission of knowledge from the parents or the grandparents to the children, which other studies mention in conjunction with tribal values and mentorship (Mushi, 2009; Ndofirepi & Ndofirepi, 2012). Only one professor discussed the necessity of theoretical knowledge in conjunction with the practical nature of IAE; however, his classroom observations mainly revealed practical knowledge. This discrepancy may result from the fact that such theory was buried in the activities, suggesting the seamless nature of this ideology (Ndofirepi & Ndofirepi, 2012). Nevertheless, Darisoan (2012) argues that traditional IAE lacked intellectual theory, which represents a possible area of contention with this study. However, since only one respondent mentioned the idea of a theoretical basis to IAE, this finding is not significant enough to contradict the literature.

Several instructors suggested the connection between the skills required for the creative economy and IAE. Two of the professors mentioned problem solving, while another discussed the element of both collaboration and communication in conjunction with IAE. Although few IAE

scholars mention the labor market, especially owing to the historical nature of this method, they nevertheless discuss the essential skills pertinent to this market. In particular, Mwinzi (2015) outlines the way in which the five principles of IAE relate to occupational preparation, while Ndofirepi and Ndofirepi (2012) discuss Ubuntu, a form of etiquette that applies to social situations. The classroom observations demonstrated many of these skills, as the team-teaching duo modelled collaboration for their own students, while two other instructors, one that referred to problem solving in his response, actually engaged the students in solving a realistic problem. Finally, two of the instructors envisioned IAE as a holistic framework that connected to all aspects of African life. Their classroom observations supported this assertion, as they connected not only the learning activities but also the school with the community. The literature widely concurs about the holistic nature of IAE (Adeyemi & Adeyinka, 2002; Darisoan, 2012; Mwinzi, 2015). Although none of the respondents mentioned the word “community” directly in conjunction with IAE, the classroom observations supported the existing body of literature, which envisioned IAE as relevant to the community (Adeyemi & Adeyinka, 2002; Ndofirepi & Ndofirepi, 2012).

Furthermore, the participants agreed that IAE had become obsolete through the process of western colonization, leading to the imposition of western experiences on African students and subsequently alienating them from their culture. Much of the literature concurs with this assertion (Mosweunyane, 2013; NCHE Report, 2014; Nsereko-Munakukaama, 1997; Ssekamwa and Lugumba, 2002). The instructors offered varied opinions regarding the possibility of recovering IAE. Some of the respondents argued that some aspects of IAE were recoverable, others offered less optimism. One of the more optimistic respondents mentioned that IAE can be recovered with support from educational administrators and policymakers, discussed more at length in the last part of the discussion. Half of the instructors stated that they could borrow the elements of IAE for their classroom, which aligns with the literature findings. In particular, Majoni and Chinyanganya (2014)

believe that instructors can avoid the compartmentalization of subject areas to align with realistic situations. Among the more pessimistic responses, two of the professors mentioned the aspect of time, arguing that since IAE was designed for a previous era, it would be impractical to implement in modern education, which Darisoan (2012) discusses at length. Two other respondents mentioned the aspect of knowledge, asserting that due to colonization, Africans have lost this knowledge, thus making it nearly impossible to recover and subsequently implement in the classroom.

Implementation of AL and IAE in Ugandan Postsecondary School Institutions

While the second objective sought to gain knowledge about instructors' perceptions and understandings of AL and IAE, this objective aimed to learn about instructors' implementation of these two student-centered methodologies in SSA PSE. The first part of this section discusses the implementation of AL, the first pillar of the theoretical framework. In contrast to the literature, which maintains that most PSE instructors in SSA still implement teacher-centered methods (Bunoti, 2010; Teferra & Grejin, 2010; Varvus et al., 2011), study findings show that the majority of instructors interviewed implement AL to at least a minimal degree; four out of the six participants report that they use this method fairly regularly, as shown in both the interview responses and the classroom observations. The discrepancy between previous research and this study may result from the passage of time or Makerere University's status as a leading SSA university (Makerere University, 2016), which suggests that Makerere remains at the forefront of educational change. Since a few instructors mentioned that their methods had evolved from lecture-centered to student-centered, the passage of time between prior literature and this study may account for the difference between the findings and the research. Nevertheless, this finding represents a unique contribution of this study.

Participants delivered AL in a variety of ways, including technology, group work, student presentations, role play, whole-class discussions, debates, team-teaching, questioning techniques,

and storytelling, as well as the development of real-world skills, such as collaboration, communication, problem-solving, and creativity. Most of these strategies are reflected in the literature, with the majority of studies revolving around technology both within SSA (Campbell, 2013; Conejar & Kim, 2014; Jaffer et al., 2007; Kandiero & Jagero, 2014; Traxler & Dearden, 2005) and outside of the region (Atkinson, 2011; Faulkner & Faulkner, 2012; Miron et al., 2000; Oldfield & Herrington, 2012; Oliver et al., 2010; Neo et al., 2012). However, other studies have highlighted the low-tech ways of delivering AL, including collaboration or group work (Herrington & Herrington, 2006; Kanuka, 2008; Revington, 2016; Traxler & Dearden, 2005), research presentations (Herrington & Herrington, 2006; Hui & Koplín, 2011; Revington, 2016), role play (Errington, 2011; Revington, 2016; Zualkernan, 2006), instructor communication techniques (Westbrook et al., 2013; Zwiers, 2007), and the development of real world skills (Clementz & Pitt, 2002; Errington, 2011; Herrington & Herrington, 2006; Hui & Koplín, 2011; Mariappan et al., 2005; Miron et al., 2000; Neo et al., 2012; Revington, 2016; Safuan & Soh, 2013; Zwiers, 2007). However, the unique findings in this study relate to the use of team teaching in addition to debate and storytelling. While storytelling relates more to IAE than AL, a surprising paucity of studies have discussed the use of debate as an AL strategy.

In addition to discussing and demonstrating their implementation of AL, participants also revealed their perceived use of IAE. On the whole, instructors held moderate to low perceptions about their implementation of IAE, which coincides with the literature findings about IAE's disappearance from SSA education (Adeyemi & Adeyinka, 2002; Lulat, 2005; Ssekamwa & Lugumba, 2002; Tedla, 1996). The professors made various suggestions about the way in which they could integrate IAE, including the addition of practical activities (Ndofirepi and Ndofirepi, 2012), the teaching of required skills (Mwinzi, 2015), and the blending of IAE with the current educational model or philosophy (Adeyemi & Adeyinka, 2002). Similar to the literature findings,

instructors also discussed the incorporation of IAE with certain content areas, such as history, geography, and philosophy (Adeyemi & Adeyinka, 2002), the latter of which holds the greatest relevance to educational theory. Along the same lines, four of the six instructors highlighted the curriculum as a way of including or reviving IAE in modern education through the inclusion of elements about African life, supported in the study by Majoni and Chinyanganya (2014). Finally, several instructors mentioned the role of mentorship in IAE; while two instructors referred to classroom teachers as mentors, two other professors mentioned community experts fulfilling this role. In contrast, one of the participants expressed that the mentorship model relies too heavily on the expertise of the teacher or elder, who require both theoretical and practical knowledge. Although the IAE literature contained minimal discussion of mentorship, Majoni and Chinyanganya (2014) indicated that in IAE, students learn with minimal guidance, thus suggesting that despite its practical appeal, IAE required greater intervention from an adult or teacher mentor.

Several participants envisioned the connection between IAE and the community. Specifically, the majority of respondents articulated the need to eradicate the traditional division between the school and the community to allow a bidirectional flow of information between teachers/students and community experts/employers. This joining may ideally achieve the five principles of IAE (Mwinzi, 2015), which prepare students for future community integration, strengthen the cohesion among members of society, and train students in all aspects of their future trade. While some instructors emphasized the need for students to visit the community and organizations in their field, other instructors focused on the desire to bring experts into the classroom. Majoni and Chinyanganya (2014) similarly articulate the need to eliminate the divisions between the structured nature of the school and the community yet neglect to elaborate upon the ways to achieve this integration, as their study focuses mainly on elementary and secondary school. Finally, the two respondents engaged in team teaching discussed the way in which their

collaborative instructional model imitates the collective principles inherent in the Indigenous African community. While the literature has broadly acknowledged the collectivism inherent in African society (Adeyemi & Adeyinka, 2002; Mwinzi, 2015; Ndofirepi & Ndofirepi, 2012), the use of the team-teaching model in conjunction with SSA PSE, AL, and/or IAE, represents a new insight that previous literature has yet to uncover.

Along with the connection between IAE and the community, several participants revealed the connection between IAE and the labor market. In addition to highlighting the practical nature of IAE, as previously mentioned, various instructors discussed how IAE connected students to the community, provided students with essential labor market skills, and linked students to field work or employers. The literature supports much of these findings, especially in terms of the connection between IAE and the community (Adeyemi & Adeyinka, 2002; Darisoan, 2012; Mwinzi, 2015; Ndofirepi & Ndofirepi, 2012) as well as the similarity between Mwinzi's (2015) five principles and the skills needed for today's labor market. Although studies have neglected to explicitly specify the link between students and potential employers, IAE's process of mentorship allowed students to observe or shadow experts (Darisoan, 2012; Majoni & Chinyanganya, 2014), which strongly resembles two of the participants' learning activities, as they instructed students to make field observations. In particular, the classroom observations evidenced that two of the instructors required students to conduct field learning by consulting with experts, observing activities, engaging in practical tasks, and sharing information with a community of learners.

Finally, the instructors mentioned barriers to AL and potential solutions for overcoming those barriers. In order to align with the purpose of the study, the barriers were classified into instructor-related and administrative-related barriers. While the administrative barriers, discussed in relation to the final objective, include support from education managers and policymakers, the instructor-related barriers are classified into resource limitations and lack of knowledge. The first

major set of barriers involved the lack of financial, material, infrastructural, and time resources along with the large class sizes, all of which received mention in many studies and literature reports (Bunoti, 2010; Jaffer et al, 2007; United Nations University, 2008; Watkins, 2013; Zwiers, 2007). Not only did the participants reveal that the institution seemed to lack necessary funds to support teaching and learning but they also implied that Makerere administration mismanaged the university's finances. The poor allocation of funds has been examined extensively in the literature (British Council, 2014; EFA, 2014; Ssentamu, 2013; United Nations, 2011), which supports the interview results in this study.

As a result of the shortage and/or mismanagement of funds, Makerere instructors reported that the university lacked adequate material resources, such as books, functional computers, projectors, whiteboards, and other necessary teaching tools. In support of these findings, the research attests to the lack of material resources, infrastructure, and adequate space to properly teach large numbers of students (Bunoti, 2010; Ruto & Rajani, 2014; Traxler & Dearden, 2005; United Nations University, 2008). Although some reports have raised the possibility of implementing inexpensive technology in SSA universities, such as SMS messaging and interactive radio (Conejar & Kim, 2014; EFA, 2014; Traxler & Dearden, 2005), participants in this study discussed the poor infrastructure at Makerere, which included the public-address system, internet connectivity, and bandwidth, all of which constitute issues mentioned in the literature (Alidou et al., 2006; World Bank, 2011). Finally, instructors highlighted time shortages and large class sizes as a reason to resort to less time-consuming methods such as teacher-centered learning, which the literature has amply revealed (Bunoti, 2010; Watkins, 2013; World Bank, 2011).

In contrast to the overwhelming research consensus that SSA universities lack funding, a few of the instructors suggested that the university contains adequate funds and/or resources. The research shows that both governments and international organizations have contributed substantial

funds towards education, but additional funds are still needed (EFA, 2014; Watkins, 2013). While one participant expressed his desire that his colleagues stop complaining about the resource shortages at Makerere, another respondent suggested that professors can implement AL through the effective utilization of existing resources. In particular, this participant highlighted the existence of resources in local communities, which a few studies have begun to highlight (Alidou et al., 2006; Hein, 1999). This finding contradicts the extensive body of literature stating that resources shortages impede the effective delivery of student-centered teaching and learning approaches (Bunoti, 2010; Traxler & Dearden, 2005; United Nations University, 2008). Conversely, another instructor mentioned that the availability of resources alone fails to guarantee the implementation of AL, which points to the existence of other obstacles in conjunction with resource limitations. The perception of resource limitations as a relatively minor obstacle, especially in comparison to the literature, represents another unique contribution of this study.

The other major set of barriers to AL concerns the lack of knowledge and philosophical orientation among instructors. The vast majority of instructors agreed that most professors lack an adequate understanding of AL, as discussed in conjunction with the previous objective and shown through three ways: a) incompleteness or misunderstandings shown in definitions; b) classroom observations of a few instructors; and c) expressed desire for increased knowledge of AL. This lack of knowledge, echoed in the literature (Bunoti, 2010; Jaffer et al., 2007; Otaala et al., 2013; Watkins, 2013), results from the perpetuation of teacher-centered models in SSA (Vavrus et al., 2011). In addition to the lack of knowledge about AL, instructors expressed that educational inertia represents an obstacle preventing the implementation of AL. Specifically, respondents mentioned that some instructors remained rigidly fixed in older ways of teaching, especially teacher-centered or lecture-based learning, which ample research supports (Bunoti, 2010; European Commission, 2014; Paludan, 2006; Teferra & Grejin, 2010). In particular, Paludan (2006) argues that universities

and other postsecondary institutions in SSA tend to resist change and cling to established ideals. Similarly, a few instructors stated that society tends to view education as an inferior discipline, which may account for the professional stagnation mentioned by some of the participants as well as the lack of funding granted to the education discipline, discussed extensively in the literature (EFA, 2014; King, 2011; Paludan, 2006; Watkins, 2013; World Bank, 2011).

After discussing the various barriers to AL, the participants provided suggestions for overcoming such obstacles. Similar to the barriers, the suggestions included both instructor-based and administrative-based solutions. The instructor-based solutions involved additional financial investments, which included funds for instructor training, resources, infrastructure, and additional staff, which would mitigate problems associated with class size (DFID, 2012). The literature identified several areas that require additional funding, including educational quality (Materu, 2007; Watkins, 2013) and equality (British Council, 2014; EFA, 2014; Ssentamu, 2013; United Nations, 2011). Similarly, instructors mentioned the need for greater management of existing funds and resources. A few studies in the literature make comparable remarks and subsequent suggestions, especially in terms of resource management, as Westbrook et al. (2013) emphasize the importance of effective instructor communication strategies and techniques in the absence of plentiful resources. Similarly, Zwiers (2007) examined strategies such as critical reflection, which enhanced student engagement and provided positive learning outcomes. Despite the promising findings of these studies, however, neither of these researches discuss the utilization of local resources in the community as a way of enhancing student learning, which represents one of the unique insights that this study contributes to the literature.

The other set of instructor-based solutions concerned those related to orientation and training. All six respondents emphasized the need for an initial instructor orientation to Makerere, which may include an orientation to student-centered teaching methods. In fact, the literature

widely attests to instructors' lack of familiarity with new pedagogical approaches due to their education in and reliance on teacher-centered models (Alidou et al., 2006; Jaffer et al., 2007; Otaala et al., 2013; Vavrus et al., 2011). A few studies have already proposed ways to provide teachers and instructors with orientation to new pedagogical methods (King, 2011; United Nations University, 2008; Watkins, 2013), which Makerere can consider moving forward. For example, King (2011) explores an Ethiopian initiative, the HPD, which instructs teachers in different contexts, including practical placements, critical reflection, active learning, assessment, and research. Watkins (2013) cautions that while African countries can incorporate foreign models of education, they need to consider the unique environment of SSA, which this study's focus on SSA aims to achieve.

Additionally, all participants discussed continual professional development through various methods such as self-study, internal workshops, external conferences, and study abroad opportunities. The body of literature discussed different professional development opportunities, including distance education (Kangai & Bukaliya, 2011), professional forums (Potts & Schlichting, 2011), and teacher development centers (Kanuka, 2010). In fact, many respondents mentioned additional instructor training as a way of overcoming not only the lack of knowledge but also the rigid mindsets of instructors that promote resistance to change and the negative attitudes towards the teaching profession (European Commission, 2014; Westbrook, 2013). Part of this training entails the use of technology, as few instructors mentioned their use of technology as a way of facilitating student-centered learning, discussed in the literature (EFA, 2014; Jaffer et al., 2007; Kangai & Bukaliya, 2011; Kanuka & Nocente, 2002; Ssentamu, 2013; Traxler & Dearden, 2005). Lastly, instructors mentioned the need to provide an initial orientation period for students to become familiar with student-centered learning approaches, as study findings revealed that students seemed either confused or resistant to learn within the framework of student-centered pedagogical methods. This finding represents a unique contribution to the literature, as existing research

overwhelmingly reported that student-centered learning increased rather than decreased student motivation (Faulkner & Faulkner, 2012; Kandiero & Jagero, 2014; Neo et al., 2012; Zwiers, 2007).

Another unique contribution of this work relates to the concept of team teaching as a solution for overcoming many of the barriers associated with implementing AL. The study results suggested that the use of team teaching enabled instructors to overcome obstacles associated with funding, resources, time limitations, and knowledge. The two instructors that used a collaborative teaching approach, in conjunction with another instructor, whose classroom observations included a peer-teaching session, demonstrated and discussed that team teaching allowed instructors to combine their existing resources, which effectively doubled the teaching materials at their disposal. Furthermore, the process of team teaching increased instructors' personal knowledge of pedagogical approaches by enabling the professors to observe one another's classes and share information with one another outside of class time. The team teaching approach also allowed instructors to overcome limitations associated with time and class size by splitting the class into smaller groups and doubling the amount of instructor support. As shown in the classroom observations, the ability to divide and conquer decreased the reliance on technology, as the instructors used low-tech approaches such as storytelling, group work, oral presentations, debate, role-play, and peer teaching. Finally, the instructors discussing, implementing, and observing team teaching highlighted collaborative instruction as a way of compensating for the lack of administrative support from education managers and policymakers, which will undergo extensive discussion in the last section of the discussion associated with the fourth and final study objective.

Degree of Support from Educational Managers, Policymakers, and Labour Market

Finally, the last objective aimed to ascertain the degree of support that educational managers, policymakers, and the labour market provided instructors for using student-centered methods such as AL and IAE. All instructors unanimously concurred that Makerere University

provides a paucity of orientation or pedagogical training to instructors. This finding aligns with the literature, which reveals significant gaps in teacher education (Alidou et al., 2006; Jaffer et al., 2007; Otaala et al., 2013; Vavrus et al., 2011). Specifically, the participants mentioned that the university provides only a course syllabus along with the date, place, and time of the class to brand new instructors, while expecting them to immediately take full responsibility of the class. The literature has highlighted this lack of administrative support and has shown that it leads to poor teaching outcomes (Bunoti, 2010; Ruto & Rajani, 2014). A few of the respondents discussed the idea of mentorship, suggesting that in some cases, senior colleagues can provide new instructors with information and observation or shadowing. Research studies have pointed to the effectiveness of mentoring among colleagues (Norodine-Fataar, 2011; Potts & Schlichting, 2011; Reitsma & van Hamburg, 2013; Westbrook et al., 2013), which, along with the findings from this investigation, indicates that mentorship may represent an effective approach for providing education and orientation to new instructors in the absence of formal training. In fact, the team teaching approach, absent from the literature, may assist with the integration of new instructors by pairing them with experienced professors to not only overcome many of the barriers discussed in this study but also serve as a way of orienting new instructors.

Respondents reported that in addition to a lack of instructor orientation, Makerere University provided minimal pedagogical training, which concurs with the findings in the literature (Jaffer et al., 2007; Otaala et al., 2013; Vavrus et al., 2011). While a few instructors mentioned that Makerere University offered a few training initiatives, including short courses, workshops and online courses, the university lacked a full training program in pedagogical methods. These types of mini-courses or micro-courses have undergone discussion in the literature. For instance, Diamond and Gonzalez (2014) propose a digital badge system that provides teachers with the opportunity to take short, self-contained courses that link to a larger system of professional development. Other

respondents indicated that Makerere had attempted to implement such a training program in the past, but certain obstacles, such as funding, had prevented the realization of such efforts. The instructors in the study mentioned that most of their knowledge came from international education and training or the observation of other colleagues. Research supports this finding, as Teferra and Grejin (2010) show that African governments lack original knowledge, which prompts teachers and instructors to pursue professional development outside of their country or continent. Moreover, the study participants attested to the lack of administrative support for student-centered learning initiatives, which has undergone discussion throughout this dissertation. In addition to the lack of funding and material resources, respondents mentioned the lack of oversight or quality assurance, which the literature findings have amply supported (DFID, 2012; EFA, 2014; World Bank, 2011).

As a result of these aforementioned issues, study participants mentioned the need for greater administrative support at the level of the university's education managers and the government's policymakers. In particular, instructors suggested that both the university administration and government allocate funding for instructors to enhance their teaching through both technological and non-technological resources as well as participate in study abroad and exchange programs. Specifically, a report by DFID (2012) asserts that government funding must account for disparities among the different demographic groups in society, thus ensuring that all students receive appropriate support. In addition, a few respondents suggested that if Makerere University administration used their funds more efficiently, they could provide instructors with more money and material resources, which previous sections of this study have discussed. Along the same lines, other participants mentioned the need for the government and university administration to establish and maintain functioning infrastructure. A few respondents argued that although Makerere had some educational resources, they lacked the necessary upkeep, which represents a problem echoed in the literature (British Council, 2014; Bunoti, 2010; Traxler & Dearden, 2005).

Another set of problems and associated suggestions in the findings related to the recruiting, hiring, and retention of a sufficient number of quality teachers with positive attitudes towards teaching. Several participants discussed the need for more staff support, especially teaching assistants, as well as more instructors, to handle the large class sizes at Makerere, which resemble the class sizes throughout most of SSA (Jaffer et al., 2007; United Nations University, 2008; Watkins, 2013; World Bank, 2011; Zwiers, 2007). The literature has shown that large class sizes and work overload can severely degrade the quality of teaching and learning (Bunoti, 2010; Ruto & Rajani, 2014), which indicates that these problems clearly require attention. In addition, respondents expressed the desire for Makerere education managers to recruit and hire higher quality teachers with proper credentials, a strong motivation for teaching, and a positive attitude towards the teaching profession. The literature supports this finding, as Westbrook et al. (2013) found that instructors with positive attitudes towards teaching tended to implement student-centered and interactive teaching tools more readily than teachers with negative attitudes about their profession. In addition, several research sources attest to the fact that SSA universities hire teachers that lack adequate qualifications (United Nations, 2011; University of London, 2010; Watkins, 2013), which the participants of this study documented in their interviews.

Additionally, the study findings revealed a need for Makerere administration to provide a proper, formal orientation to new instructors entering the university and orient all instructors on student-centered teaching methods. The lack of pedagogical orientation and training has been documented in the literature (Jaffer et al., 2007; Otaala et al., 2013; Vavrus et al., 2011). Part of the reason for stagnation on the part of individual instructors may relate to the apathy at higher levels of the educational hierarchy, including the government and university administration (King, 2011; Paludan, 2006). This finding suggests that by changing the attitude of the government and/or the university administration towards the teaching profession, both stakeholders can make greater

efforts to implement student-centered learning through policy, curriculum, quality assurance, and oversight, all of which the literature suggests requires policy revision (Alidou et al., 2006; Jaffer et al., 2007; Republic of Rwanda, 2003). Along the same lines, a few of the study participants discussed the need to change the university's business model from a hierarchical one focused on system efficiency, order, and structure to one focused on the student and on relating education to the real world. Jaffer et al. (2007) make a similar suggestion when they propose that educational policy must reflect the current requirements of the workforce and society in general.

In addition to the university administration, the government represents another important stakeholder in improving SSA education. While the most obvious way in which the education ministry can provide support involves the provision of funds for resources, infrastructure, staff, and training (DFID, 2012; Teferra & Grejin, 2010), participants mentioned other ways in which the government can assume greater responsibility for implementing student-centered learning. Study findings indicate that preliminary steps to policy changes include research and government awareness. One instructor remarked that these policies should begin with research showing the benefits of student-centered learning over traditional, lecture-based teaching, which Teferra and Grejin (2010) discussed in conjunction with developing a greater knowledge base to inform policy. These benefits, which have already been documented in numerous reports, include an increase in skilled graduates to contribute to the labor market, higher GDP rates in SSA countries, lower unemployment rates, technological advancement of society, and greater quality of life (Bloom et al., 2006; British Council, 2014; Materu, 2007). A few participants indicated that the government lacked awareness of pedagogical changes and instructor needs, which indicates the need to bring these issues to the attention of policymakers (Otaala et al., 2013).

A few of the respondents discussed the need to develop policies that can ideally change social attitudes towards education and mandate universities to support instructors in delivering

student-centered learning. Studies reveal that SSA society takes an apathetic attitude towards education, which begins with the government and filters down to individual students and parents (EFA, 2014; Watkins, 2013; World Bank, 2011). One respondent mentioned policies pertaining to the hiring of instructors with proper credentials, especially since Makerere routinely hires professors without their doctorate degree. The literature supports this lack of standardization in teaching credentials and training throughout SSA (Republic of Rwanda, 2003; University of London, 2010; United Nations, 2011; Watkins, 2013; World Bank, 2011). Another participant stated that the government must order universities to provide adequate resources and infrastructure as well as provide proper staff orientation and training. Much of these policy suggestions have already been articulated in the literature, especially those pertaining to curriculum, teacher training, and research (Jaffer et al., 2007; Republic of Rwanda, 2003; Teferra & Grejin, 2010). Finally, several instructors discussed the requirement for greater quality assurance and oversight from the National Council for Higher Education. Respondents suggested that this body should visit universities frequently to evaluate staff performance, assess resource shortages, and collaborate with university administration with the aim of improving education. The literature shows similar issues with the lack of accountability, especially in terms of evaluating individual teachers and instructors (EFA, 2014; World Bank, 2011) and student learning outcomes (DFID, 2012). One study highlighted the role of peer evaluation as a way of overcoming issues with quality assurance while improving instructor knowledge (Reitsma & van Hamburg, 2013).

The final stakeholder that requires greater involvement in PSE, the business and corporate sector (labor market), can assist universities in several ways. One of the instructors mentioned that the labor market currently has negligible participation in education, which prior studies have similarly uncovered (Muganga, 2015; Nganga, 2014). Consequently, most of the study participants suggested the creation of collaborative partnerships between the university and the business and

corporate sector, which includes both entrepreneurs and corporate employers. These proposed partnerships, discussed in the literature (United Nations, 2011; Watkins, 2013) should involve employers funding the university in exchange for internship programs and providing the universities with more information about the required skills that graduates need for the labor market. Ssentamu (2013) suggested that partnerships and increased private sector involvement should not only improve education but also provide additional funding. During such internship programs, the employers should provide feedback to the university about student performances, thus enabling the university to make the appropriate adjustments. Bunoti (2010) proposed the provision of practical activities and internships as a way of providing SSA graduates with job-ready skills that employers seek.

In addition to the business and corporate sector (labor market), the community itself comprises another potential stakeholder. Most respondents advocated for greater integration between the university and the community, which concurred with a few studies in the literature suggesting that teachers make connections with individuals, groups, and organizations in the community (Vavrus et al., 2011; Zwiers, 2007). Zwiers (2007) mentioned that the curriculum, which originates with the government and policymakers, should contain community-based values, while a report by DFID (2012) recommended the involvement of communities in providing accountability and quality oversight. In fact, a few of the participants mentioned that universities should form partnerships with community organizations. These mutually-beneficial relationships would allow both instructors and students to use the resources in the community, which included expert consultation, support services, and student placements. The literature detailed some of the community activities in which students can engage (EFA, 2014; United Nations University, 2008). Another participant mentioned the desire for financial and information support from different community organizations, which some of the research has already advocated (Ssentamu, 2013;

Watkins, 2013). Finally, a few respondents suggested inviting business and community experts into the university to provide guest lectures to students and collaborate with instructors for the purposes of reforming practice.

Summary of Unique Findings

While many of the results of this study are supported in the literature, a few unique findings emerged that display inconsistency with existing research or revealed new information about the implementation of student-centered learning in SSA universities. The first major finding concerns the fact that despite minimal research evidence of AL in SSA PSE (Otaala et al., 2013; Vavrus et al., 2011), this study revealed ample evidence of student-centered learning methods such as AL and IAE. In fact, four of the six instructors discussed at least a moderate use of student-centered learning, while five of the six instructors showed at least some evidence of this learning style. While the relatively high proportion of Makerere instructors using student-centered learning may result from Makerere's status as an elite university (Makerere University, 2016) or from the passage of time between older research and this study, the stark difference between the results of this study and the low use of student-centered learning reflected in the literature provides some evidence that this study uncovered the emergence of this new learning method in SSA.

The second finding, and perhaps the most unique contribution that this study presents, involves the discovery of team teaching as a viable method for overcoming many of the obstacles associated with student-centered learning in SSA. Although western literature has discussed the effectiveness of team teaching in improving teacher performance (Da Costa, 1993; Jones & Harris, 2012) as well as student motivation and outcomes (Da Costa, 1993; Gillespie & Israetel, 2006; Yanamandram & Noble, 2006), to the best of the author's knowledge, no such research exists pertaining to SSA PSE. Three of the six instructors interviewed discussed their involvement in team teaching, which they subsequently manifested in the classroom observations. Team teaching

provided a way of delivering AL experiences with minimal technology, such as storytelling, group work, oral presentations, debate, role-play, and peer teaching, along with effective instructional techniques such as questioning and critical reflection, while capturing student interest. As Yanamandram and Noble (2006) found in their research with large undergraduate classes, this study discovered that team teaching enables instructors to overcome obstacles associated with funding, resources, time limitations, and knowledge by combining their existing material resources, information, and pedagogical methods, while decreasing the student-teacher ratio. In addition to compensating for resource limitations, team teaching offset the lack of administrative support from managers and policymakers, including minimal training and oversight.

In addition to team teaching, this study found that the ability to use resources effectively represented a low-cost and innovative way of implementing student-centered learning. Respondents revealed that Makerere administration tended to mismanage funds and materials, which pointed to the effective utilization of resources as a way of overcoming barriers associated with resources. In addition, a few of the participants mentioned that resources alone failed to compensate for poor teaching or lack of knowledge, which undermines the significant importance that the literature provided to resource shortages as an impediment to student-centered learning. Although a few studies mentioned the possibility of delivering student-centered learning without expensive technological resources (Brooks & Young, 2011; Westbrook et al., 2013; Zwiers, 2007), the literature neglected to mention the potential for integrating community resources, such as agriculture and animals into university education, which a few of the respondents discussed. While Hein (1999) discussed the benefits of outdoor education and Alidou et al. (2006) mention the possibility of learning with local animals, the ideas in these studies require further exploration with the potential availability of other resources in SSA communities.

While much of the previous research, along with the results of this study, attested to the need for better training and orientation for instructors, this investigation yielded the unique finding that SSA students require a type of orientation into student-centered learning. Some of the literature highlighted that the values of African societies conflict with the idea of student-centered learning due to the prioritization of the collective society over the individual learner (Tedla, 1996; Vavrus et al., 2011; Zwiers, 2007) and the idea of the teacher as a distant authority figure that disseminates knowledge (King, 2011; McTighe et al., 2004). However, none of these studies actually explored students' adverse reactions to student-centered learning. The results of this study reveal that students can respond to learner-centered instructional methods with either confusion or apathy. While much of the literature, along with the interview results and classroom observations, suggested that student-centered learning increases motivation (Faulkner & Faulkner, 2012; Kandiero & Jagero, 2014; Neo et al., 2012; Zwiers, 2007), a few of the instructors noted that the opposite tendency can occur, where students respond to new methods with disorientation or reluctance. Literature in both North America (Korte, Reitz, & Schmidt, 2016) and China (Tsegay, 2015) discuss this reaction to new teaching methods, yet no SSA studies have documented this issue. Based on these findings, this study suggests the need for orienting or training students to student-centered learning methods prior to introducing these new pedagogical approaches.

Although the literature mentioned that traditional African values clash with student-centered learning models, this study found that Makerere's administration allowed instructors full pedagogical freedom and that instructors genuinely desired to implement student-centered learning models in their classrooms. Previous studies mention that social values in SSA regions encourage teacher-centered or lecture-based learning because they posit the teacher as a distant authority figure, which indicates that the students must act as passive sponges of knowledge (King, 2011; Paludan, 2006), and emphasize values of collectivism, which limits the importance of the individual

student (Vavrus et al., 2011; Zwiers, 2007). Although the respondents concurred that the administration displays some degree of apathy towards instructors' personal teaching methods, the professors' own personal attitudes display a positive rather than a negative orientation towards student-centered learning, as most of the instructors expressed their desire to use this method or even demonstrated at least some elements of student-centered learning. Thus, the positive mindset towards using student-centered learning methodologies represents a unique finding of this study.

Finally, this study presented the possibility of using IAE principles to support student-centered learning. Although a fairly significant body of literature exists in conjunction with reviving the elements of IAE in current SSA education (Adeyemi & Adeyinka, 2002; Darisoan, 2012; Majoni & Chinyanganya, 2014; Mwinzi, 2015; Ndofirepi & Ndofirepi, 2012), none of these studies link IAE distinctly to AL. Hence, unlike previous research, this study found commonalities between IAE and AL, especially based on some of Revington's twelve elements of AL: tangible product, community audience, role playing, collaboration, subject integration, and master consultation (Revington, 2016). This finding further justified the use of Revington's conceptual framework over the theories of other AL scholars, notably Herrington. In addition, some of the instructional strategies discussed in the interview findings and evidenced in the classroom observations, including debate, role play, and storytelling, not only represent unique methods of student-centered learning, but also link IAE to AL. This relationship suggests that some elements of IAE can indeed undergo recovery in SSA PSE. The use of IAE as a viable method of student-centered learning overcomes the problem of integrating western methods within an African context (King, 2011; Watkins, 2013) while ensuring that the teaching and learning experience remains student-centered.

Recapitulation

This chapter has integrated the findings from the study with the previous literature in order to compare and contrast the study results with the supporting research. Since this assessment aimed

to address the study purpose and its four objectives articulated throughout this thesis, the insights that emerged from the comparison answer the fundamental questions posed by the study. While much of the interview results and classroom observations concurred with the existing body of literature, some new insights emerged that uncovered the unique contributions of this study. First, the study participants seemed to exhibit a higher degree of knowledge and desire to integrate student-centered learning, especially AL and IAE, than the body of research suggests. This discrepancy may result from the passage of time between the research and this study or from Makerere University's status as a leading-edge university in Uganda. Despite the overarching similarities between the prior research and this study's findings regarding the barriers and strategies for surmounting such hurdles, another major insight of this work concerns the use of the team-teaching model as a legitimate strategy for overcoming the barriers associated with student-centered learning. Moreover, this study highlighted the necessity of efficiently utilizing the available resources, both in the schools and the communities, in order to promote the possibility of implementing AL with minimal materials. Although both the existing literature and this study found that teachers require more orientation and training in student-centered learning methods, this study demonstrated that students also require such orientation, especially due to some student confusion and apathy that emerged from this study. However, the enthusiasm that Makerere University instructors demonstrated towards delivering student-centered learning contrasted with the literature findings, showing that instructors possess the desire to use student-centered learning despite contrary social values. Lastly, this study found many commonalities between AL and IAE, suggesting that the recovery of some IAE elements will help to deliver student-centered learning in an appropriate environmental context. The final chapter of this dissertation discusses the implications of these findings along with the limitations and suggested future research to extend the insights of this study.

CHAPTER SEVEN: IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION

While the previous chapter contextualized the results within the body of literature according to the study purpose and four objectives, this chapter discusses the implications, strengths, limitations, and suggested future research before providing a general conclusion. The first section of the chapter examines the implications of this study for the primary stakeholders in SSA education, including the instructors, educational managers or administrators, policymakers, the business and corporate sector, and international funding agencies. Subsequently, the strengths of the study are reviewed and then the limitations and implications for future research undergo examination. The last part of the chapter provides a general conclusion, which includes a brief summary of the dissertation along with final thoughts on student-centered learning in SSA PSE.

Implications of the Study for SSA Education and Recommendations for Practice

This study addressed a gap in the literature by assessing the issue of postsecondary teaching methods in SSA from the perspective of the instructors rather than third-party researchers. While previous studies discussed the state of PSE in SSA, this investigation focused on the teaching methods in Ugandan universities by interviewing six professors at Uganda's Makerere University and observing their instruction. The findings generated from this study make significant contributions towards improving the postsecondary pedagogy in Uganda and SSA. Based on the previous section relating the discussion back to the study purpose and objectives, the remainder of this chapter identifies the implications and recommendations of the study for stakeholders involved in SSA PSE.

Implications for Instructors

Among all stakeholders, instructors have the greatest direct impact on student learning. Consequently, the findings of this study have several implications for instructors. First, the study

revealed that some of the instructors possessed incomplete knowledge of student-centered learning and lacked orientation, training, and support services and resources. While all instructors demonstrated at least some knowledge of student-centered learning methods and the desire to use such methods, some of the instructors reported obstacles that prevented them from implementing student-centered learning, such as funding, resources, infrastructure, and time. Since other professors reported their ability to overcome the same obstacles, this discrepancy suggests that the instructors struggling or refusing to surmount these challenges require more knowledge of student-centered learning methods. In fact, many of the instructors mentioned their desire to acquire more knowledge about student-centered learning methods.

Due to the lack of internal and external support frequently cited throughout the interviews, SSA instructors must take the initiative to acquire more information and practical training about student-centered learning. To align with the guiding framework of AL, which combines theory with practice (Revington, 2016), this learning should ideally comprise a combination of theoretical knowledge and practical experience. Some of the instructors mentioned the perusal of academic journals and open source internet materials (European Commission, 2014), which represent an inexpensive means of increasing personal knowledge. However, instructors should also engage in practical ways of improving their expertise and proficiency with student-centered learning methods. Participants mentioned different ways of gaining this knowledge. While overseas exchange or training programs represent effective yet expensive options, instructors can learn locally through conferences and workshops depending on availability and cost. For example, Zwiers (2007) implemented a teacher-training program in Ethiopia that taught instructors how to develop interactive learning strategies despite resource limitations. This program included both active learning and reflection as a means of teaching instructors. Makerere, perhaps in collaboration with other universities in the area, can implement a similar program.

In addition, instructors can gain further knowledge through shadowing their peers, as several instructors mentioned in conjunction with orientation possibilities, or collaborating with their colleagues to deliver team teaching. While the literature neglected to mention the aspect of team teaching, this strategy was uncovered in this study. Not only does team teaching represent an inexpensive option of sharing knowledge with peers, but it also helps instructors to overcome the various barriers associated with resource shortages and class sizes. Along the same lines, greater interdepartmental collaboration, mentioned by one of the interviewees, would help to organize the teaching load for each instructor while also permitting the sharing of knowledge and resources amongst instructors. Finally, instructors should provide students with an orientation period about AL. This orientation period would mitigate at least some of the issues with student confusion, including decreased motivation and performance.

Implications for Educational Managers and Administrators

In addition to instructors, educational managers and administrators can take several measures that provide instructors with better support for delivering student-centered learning. The first implication for these important stakeholders involves the improved utilization of existing resources, including staff or faculty, material resources, and infrastructure. Since the participants' responses revealed that administrators and managers made inefficient use of existing resources, such as misusing funds and wasting booklet space, this study suggests that these stakeholders prioritize the importance of teaching and learning over other administrative or bureaucratic expenses. In addition, these stakeholders should organize the available money and materials to improve the efficiency of their distribution to the instructors and students. As this study uncovered the potential for community resources, educational managers and administrators should locate and procure and organize these inexpensive materials for instructor usage. Studies that suggested the use of outdoor education (Hein, 1999) and animals (Alidou et al., 2006) represent starting points for

providing learners with low-cost student-centered learning experiences. To fulfill their obligation in this respect, managers should recommend these resources along with other ideas suggested in this study, such as visits to workplaces and farming or agricultural experiences.

Along with identifying viable community resources, educational managers and administrators should fulfill their obligation to enhance the classroom conditions for instructors. Although these stakeholders lack full control over the amount of funding provided to universities, they can take measures to improve both the funding, and, as mentioned in the previous paragraph, the utilization of such grants. Managers or administrators can lobby more strongly for additional funds from the national government or pursue other avenues of funding, including international governments, organizations, or, as highlighted in this study, industry and community partnerships. These stakeholders can also monitor classroom conditions on a regular basis and improve their upkeep of existing resources, which addresses participants' claims that many resources have gone without maintenance and no longer function. Given the condition of limited funds and resources, administrators can organize the existing resources and spearhead a type of sharing system among the instructors to ensure that all instructors can take turns in using material and technological equipment that would assist in the delivery of student-centered learning methods. This approach would mitigate the attitude of possessiveness mentioned by one participant and, with the viability of team teaching, the sharing of resources can occur naturally among instructors.

Furthermore, the study revealed the dire need for educational managers and administrators to improve the staffing situation through better recruiting, hiring, orientation, and training procedures. The vast majority of participants expressed the desire for more assistance from additional instructors or teaching assistants to manage the large student numbers and the heavy workload, especially with marking and assessment. Consequently, the educational administrators can improve their utilization of existing or additional funds to hire more instructors or staff. In

addition, several participants mentioned the low quality of teaching in SSA PSE, also echoed in the literature (Bunoti, 2010), which implies the need for administrators and managers to hire better quality instructors. Along with hiring instructors that possess adequate credentials, which some of the participants and prior research implied as problematic (United Nations, 2011; University of London, 2010; Watkins, 2013), educational managers should hire instructors with positive rather than negative attitudes towards the teaching profession. Since this study and the existing literature found that some teachers view education as an inferior discipline (European Commission, 2014; Westbrook, 2013), university administrators can properly assess the attitudes of teaching candidates prior to their hiring to ensure that instructors possess positive attitudes towards their job and their students. Finally, PSE administration and management should consider reducing the number of students admitted into the universities to not only improve the quality of education but also to ensure that students have access to an adequate number of instructors and resources.

The final recommendation for educational managers and administrators concerns the provision of additional orientation and training opportunities for instructors. While, as previously mentioned, instructors are partly responsible for pursuing their own professional development, managers can facilitate this process by providing in-service orientation and training for newly-hired instructors. The orientation period would allow new recruits to learn about Makerere's policies and procedures for instructors along with an introduction to student-centered teaching methods. Since some instructors in this study reported their participation in shadowing, mentoring, or collaborative teaching for induction into the university, the administration can facilitate this process by actively pairing new instructors with senior colleagues rather than assuming that the instructors will take the initiative to undergo this process independently. This orientation could involve new instructors observing or shadowing senior colleagues until they become comfortable enough to gradually assume greater levels of responsibility in the classroom. During this orientation period, instructors

could share resources in addition to knowledge, thus contributing to the establishment of the team-teaching approach at Makerere and potentially elsewhere in SSA.

Implications for Policymakers and Public Education Policy

The third major set of stakeholders in this study includes government bodies, which include the central and local governments as well as education decision-makers that influence public education policy. The findings of this dissertation reveal a dire need for additional funding at the PSE level, which SSA governments can pursue through their own means, including improved distribution or allocation of taxpayer funds, the creation of additional revenue through increased taxes or other means, and the receipt of funds from international governments or bodies. The improvement of various SSA industries and economies would also help to generate more money, which the government can subsequently allocate toward education. However, since the improvement of education would bolster the economy, the government should ensure that sufficient funds are devoted to this crucial industry even at the risk of incurring a deficit. As studies have shown, the initial investment in education would, over time, generate dividends from GDP growth through an increase in skilled graduates (Bloom et al., 2006; British Council, 2014; Materu, 2007), especially in today's creative economy (Howkins, 2001; Sawyer, 2008; Vavrus et al., 2011), which requires the use of student-centered methods. Thus, as the top of the educational hierarchy, and, in some senses, the prime mover of education, the government needs to generate the required funding for subsequent use by administrators and instructors to improve education, including the provision of materials, infrastructure, staff, and training, all of which require money.

Moreover, the government needs to develop or create bodies that perform effective oversight and quality assurance functions. The participants in this study unanimously expressed the lack of oversight or guidance in their efforts to implement student-centered learning. Consequently, the government needs to form an organization devoted to providing both oversight and support to

instructors and education managers or university administrators. The organization would ideally perform regular audits or inspections of each university in a given region to ensure that high-quality teaching and learning activities were taking place. In an oversight function, this body would communicate with the educational managers and administrators to provide feedback about the current state of the institution and recommend necessary improvements. Such improvements may concern instructor quality, teaching methods, or classroom conditions, all of which administrators can ameliorate through additional training and resource allocation. This quality assurance board, upon finding similar deficiencies throughout several PSE institutions, may also recommend that the government make wholesale improvements in education through mandatory instructor credentials and training levels, curriculum changes, or policy amendments. Lastly, the quality assurance body can create uniform standards among the universities so that all universities meet the same standards of quality for aspects such as instructors, curriculum, and assessment.

The final area in which the government can improve SSA PSE involves curricular policies. Since this study highlighted an overwhelming need to implement student-centered learning methods such as AL and IAE, the government can ensure that the policymakers responsible for the curriculum can create learning objectives, instructional methods, activities, and assessments that not only embody the principles of student-centered instruction but also integrate seamlessly with one another (DFID, 2012; EFA, 2014; Westbrook et al., 2013). A few of the instructors in this study mentioned that while they made significant efforts to implement student-centered learning methods, the standardized assessments complicated their ability to create meaningful learning for students, an issue that the research widely supports (Otaala et al., 2013; Ruto & Rajani, 2014; Varvus et al., 2011). While Wandera and Otage (2018) reveal that Makerere is currently engaged in research designed to eliminate standardized testing, further studies are needed to not only validate this approach but also to apply it to other SSA PSE institutions. Further research would also influence

and validate government policy designed to implement student-centered learning methods such as AL and IAE into the curriculum. By showing the benefits of student-centered approaches for motivating students, improving student performance, and providing students with appropriate job prospects as well as filling workforce needs and hence bolstering the economy (Muganga, 2015), researchers can ideally influence subsequent government policy.

Implications for Business and Corporate Sector (Labour Market)

A crucial stakeholder often ignored with respect to SSA education involves the business and corporate sector, who has an obligation towards improving the quality of PSE in SSA. Several respondents in the study acknowledged the minimal participation of the business and corporate sector towards the creation of competent graduates designed for the creative economy. In fact, as one instructor succinctly stated, the employers merely wait passively for the production of graduates without lending any assistance. Given the SSA PSE gaps mentioned continuously throughout this study, the business and corporate sector needs to participate more actively in collaborating with instructors, educational managers, and government to ensure that students receive an education commensurate with the modern requirements of their chosen industry. The government, discussed above, can initiate a call to action or a policy for the business and corporate sector to become involved in the production of graduates from SSA universities. Subsequently, the business and corporate sector, including corporations, SME business owners, executives, and entrepreneurs, can collaborate with educational managers and/or instructors to deliver realistic student-centered learning experiences that adequately prepare students for the creative economy.

The business and corporate sector can assist in the preparation of students through several means of collaboration with educational managers and/or instructors. First, the various industries can provide governments or universities with information about the skills that they expect graduates to possess upon entering their profession. These skills should include not only “hard” or job-

specific skills but also the “soft” skills discussed throughout this dissertation, which include collaboration, communication, problem-solving, critical thinking, innovation, and creativity (Sawyer, 2008). Once the business and corporate sector informs the government or education ministry of these competencies, the curriculum developers can subsequently input these learning objectives into the various programs and courses of PSE institutions. Educational managers can subsequently ensure that their instructors follow these requirements, and the oversight or quality assurance bodies, mentioned in the previous section, can perform regular inspections of the universities to make sure that educational managers and instructors have implemented these requirements into the teaching and learning of students. As a method of triangulation, prominent members of industry can, independently or as part of a board, inspect the schools to ensure that students are learning the required competencies outlined by the various fields. These actions would ensure collaboration amongst the various stakeholders to transmit important requirements from professional fields directly to students.

In addition to information provision, industry can collaborate with universities to form partnerships that provide funding in exchange for student internships. This exchange would provide benefits to both students and industry; while students would gain practical, on-the-job experience working at a company or business to bolster their employment prospects, corporations or entrepreneurs would gain low-cost assistance from students as well as ready-made employees. Continuing the theme of mentorship discussed throughout this dissertation, company employees can mentor students by providing them with vital information, experience, and observation opportunities. This invaluable exposure would allow students to make important career decisions early in their education, thus saving time and money, or alternatively, provide students with the needed hands-on expertise employers demand in today’s economy. Finally, the provision of such partnerships would give universities the additional funds needed to acquire adequate staff,

resources, and infrastructural equipment while offering training and professional development to instructors. In this scenario, everyone is a winner.

Along with hosting internships, the business and corporate sector and/or community can collaborate with universities by encouraging students and instructors to visit workplaces, fields, and businesses while simultaneously providing expert consultation in the university setting (Revington, 2016; Vavrus et al., 2011; Zwiers, 2007). In particular, employers, entrepreneurs, and community members can provide guest lectures to students, as suggested by at least one participant. These guest lectures could serve both informational and motivational purposes by providing students with background information about the industry and its required competencies; referrals to advisors, entrepreneurs, and other professionals in the industry; and motivation for students to continue pursuing their desired career. In the absence of internships, students can spend a day or a short period of time visiting or observing professionals in their field; asking questions about the industry, position, or company; and potentially volunteering for the company. Finally, instructors can personally consult with employees, managers, and entrepreneurs to acquire information that would enable them to provide student-centered learning experiences in their teaching. This strategy corresponds to the idea of “breaking down the walls” between the university and community, a phrase articulated by at least half of the study participants.

Implications for International Funding Agencies and other Multinational Organizations

The final set of stakeholders that can contribute to the betterment of SSA PSE includes international funding agencies and other multinational organizations, such as the World Bank, International Monetary Fund (IMF), Department for International Development (DFID), African Development Bank (ADB), UNESCO, and United Nations Development Program. One of the main themes articulated throughout the dissertation concerns the lack of funding not only at Makerere University but also at PSE institutions throughout SSA. Although this thesis recommends that the

government can derive creative methods for allocating appropriate funds for education, the government still requires additional inputs of money to devote towards PSE. The case studies, including both the interview responses and the classroom observations, revealed the dire lack of financial, material, and infrastructural resources at Makerere. Although a few of the participants implied that administration and instructors can overcome resource shortages with additional training and the use of student-centered teaching methods, the vast majority of cases revealed limited funding as a challenge restricting the implementation of AL and IAE. Specifically, the inability to purchase learning resources such as books and computers as well as maintain a working technological infrastructure, such as internet, cellular, and public-address systems, restricts the extent to which students can engage in learning activities. In addition to the case study interviews, the classroom observations indicated a paucity of modern technology and the reliance on outdated materials such as chalk and blackboard to deliver student learning.

The case studies at Makerere University provide a real-life snapshot of a persistent theme articulated in the literature. Many reports attest to the serious lack of funding towards education in SSA, which has only begun to experience marginal improvements in government programs and policies to increase enrollment, achieve equality, and enhance basic literacy and numeracy levels (EFA, 2014; UNESCO, 2012; United Nations University, 2008; Watkins, 2013; World Bank, 2011). Among all levels of education, PSE has received the lowest amount of attention from international funding agencies with enrollment increasing yet quality decreasing due to higher student-teacher ratios, overcrowded classrooms, and limited resources (Bloom et al., 2006; British Council, 2014; United Nations University, 2008). In fact, the case studies revealed class sizes that exceeded 1000 students, indicating the need for more instructors, classroom space, and learning materials. The provision of additional funding from international donors would not only alleviate

problems such as overcrowding and staff shortages but also allow instructors to use student-centered learning methods with the provision of appropriate material and technological resources.

Due to the phenomenon of globalization, the consequences of education and knowledge in one country now affects all other countries worldwide. Misra (2012) argues that the world now has “a total education system...under one roof (p. 1). This fact alone should provide international donors with the impetus to ensure that SSA countries remain on a level playing field with more developed nations. Consequently, the funding agencies should redistribute more of the wealth generated in western countries to fund education in SSA and other underdeveloped countries. Steer and Smith (2015) recommend that donors and SSA nations use best practices generated from other successful initiatives, including those in Middle Eastern and Asian countries. At the PSE level, loans, scholarships, and other relief programs can help students to afford education while encouraging high-quality learners that will ultimately contribute back to the economy (Steer & Smith, 2015). Another way to decrease the expenditures of education involves providing all open-source materials online, thereby allowing free access to all students and eliminating the cost of textbooks, booklets, and other hard-copy learning materials (European Commission, 2014) and this is a competent area where international agencies and different multinational organizations can aid SSA countries to complement their existing meagre resources. Finally, the development of close collaborations between national governments and international donor agencies can ensure that the funds target areas that are most in need (Steer & Smith, 2015).

Strengths, Limitations and Future Research

Strengths

Unlike previous studies, which addressed SSA PSE teaching and learning from the perspective of researchers, this investigation provided a critical examination of the topic from the insider viewpoint of instructors. As the front-line workers in education, instructors have significant influence over the delivery of material to students, thus making these critical employees a valuable

source of information. Since no prior study has examined student-centered learning methods from the perspective of SSA PSE instructors, this study represents a ground-breaking initiative that provided new insight into the current state of university education in Uganda. In addition, this investigation provided a comprehensive view involving the different agents and stakeholders in education, including instructors, university administration, education managers, policymakers, international donors, and private sector companies or entrepreneurs. Accordingly, this one-of-a-kind pioneer study yielded many valuable observations that both supported the literature and generated new ideas that either contrasted with existing research or studied new phenomenon neglected by previous investigators.

The major strength of this study concerns the unique contribution that it made to the field of PSE education. As discussed in Chapter Six, the study uncovered six novel insights about teaching and learning in SSA. First, despite limited research studies demonstrating the use of student-centered learning in SSA, this study showed that a significant portion of instructors at Makerere University applied student-centered learning methods to deliver material to their students. In addition, this study revealed the use of the collaborative team-teaching approach, which existing SSA literature had neglected to mention. The results of this study demonstrated that team teaching compensated for several resource and personal knowledge limitations, thus enabling instructors to overcome obstacles associated with teacher-centered methods. In addition, the study respondents expressed the idea of using existing resources efficiently and discovering additional resources within local communities as a way of generating student-centered learning opportunities.

Furthermore, the study discovered that, along with the need for improved instructor training and orientation, widely discussed in the literature, students require a type of orientation to student-centered learning as a way of becoming familiar with new methods of learning as well as overcoming resistance associated with SSA values that place importance in the authority of the

teacher and the collectivism of society. Despite the existence of such values in the literature, however, this study found that Makerere University instructors demonstrated positive attitudes and motivation towards student-centered learning methods. This finding represents a novel insight that the literature has yet to uncover. The final unique contribution of this study concerns the possibility of implementing Indigenous African Education elements into modern-day PSE in SSA. While prior investigations discussed the potential for reviving Indigenous African Education in SSA education, this study found several similarities between Indigenous African Education and the other theoretical framework, Authentic Learning, which, to this date, research has yet to uncover. By integrating Indigenous African Education principles into modern SSA PSE, instructors can ensure that instruction remains regionally appropriate while still delivering student-centered methods.

Limitations and Future Research

Despite the insights that this research provided about the use of student-centered methods in SSA education, the study has several limitations. First, the small sample size of instructors limits the transferability of the findings to other instructors at the university and throughout SSA. In addition, the narrow geographical focus of this study, which occurred exclusively at Uganda's Makerere University, may limit the application of the study's findings to not only other universities in Uganda but also throughout all of SSA. Although, as stated in Chapter Three, Makerere University constitutes a fairly representative postsecondary institution in SSA due to its status as the oldest and largest university in SSA as well as its reputation for attracting students throughout SSA and even all of Africa (Makerere University, 2016), other universities in different regions of SSA may differ in their teaching methods. Consequently, additional studies are needed to examine postsecondary instructors' perceptions of their teaching and learning methods throughout not only Uganda but also SSA. Finally, the sampling method, purposive sampling, may potentially represent an inherent limitation in the study design. By selectively recruiting instructors that had experience

with student-centered learning methods, this study may have included participants with biases toward AL and IAE, resulting in the enthusiasm towards and higher usage of student-centered learning. In order to mitigate this limitation, future studies should have a mixture of instructors that support teacher-centered methods alongside those that support a student-centered pedagogy.

Another limitation of the study revolves around the accuracy of the interview responses. Due to the subjective nature of qualitative research, interpretivism, and the case study method, the results depended on the instructors' ability to describe their responses in an objective manner. As Woods and Trexler (2011) maintain, interpretivism, as a branch of qualitative research, focuses on individuals' interpretations of their experiences as well as the experiences themselves. Accordingly, the findings may have been limited by the participants' capacity to not only recall their experiences and the feelings associated with those experiences but also to convey those experiences in a manner separate from their biases and/or personal agendas attached to such experiences. Additionally, my own interpretation as the researcher, based on the nature of qualitative research, may play a role in the participants' responses and the way in which such responses were recorded. Not only does the method of questioning and the wording of the actual questions influence the participant's responses, but my interpretation of such responses and subsequent follow-up questions also influences the direction of the interviews. Finally, the participants' responses may have been influenced by their lack of comfort with revealing sensitive information that may potentially jeopardize their personal or professional status. While the classroom observations mitigated many of these limitations by revealing any inconsistencies between the interviews and the observations of live instruction, the instructors' awareness of undergoing observation may have influenced their behaviour in the classroom.

Lastly, the study's focus on two specific methods of student-centered learning, AL and IAE, delimited the study to only two among many types of student-centered learning. Although the study

revealed a plethora of information about these two methods, additional research could explore the use of other student-centered learning methods, including personalized learning, experiential learning, game-based learning, and project-based learning in the instructional methods of professors at postsecondary institutions of SSA. Along the same lines, this investigation selected a specific conceptual framework of AL, that espoused by educator Steve Revington (2016), to define, understand, and study AL in SSA PSE. Other models of AL have emerged that provide a different way of classifying AL, including those by Stein et al. (2004), Lombardi (2007), Herrington et al. (2010), and Parker et al. (2013), all previously mentioned in the literature review of this study. In fact, Jan Herrington, alone and in collaboration with other scholars, has published numerous papers on AL, which signifies her expertise in this area. Future investigations may consider using Herrington or other AL models as their theoretical framework for studying SSA PSE. Such studies, in combination with this investigation, may provide a more holistic picture of student-centered learning throughout the universities of SSA. Despite these limitations, this study, which represents a ground-breaking investigation in its field by considering the perspectives of instructors in implementing student-centered learning in SSA PSE, will ideally inspire a plethora of research in many different directions to generate a bigger picture of instructional pedagogies in SSA PSE.

This research has provided a starting point from which future academic and practical studies can diverge in many different directions. At the academic level, subsequent investigations can replicate this study in several different contexts, including research in other PSE institutions in Uganda or across other SSA countries, including Tanzania, Angola, Burundi, Chad, Kenya, Rwanda, Guinea, Gambia, Niger, Zambia, and Zimbabwe, Central African Republic and Democratic Republic of Congo. These countries, among others, have been commonly identified as lacking adequate education systems (Bizna, 2017; Werft, 2017; World Atlas, 2017). In addition, researchers can use different study designs, such as questionnaire-based formats, to overcome the

limitations associated with small sample sizes and cover a larger geographical area. Moreover, future studies can utilize different models for AL and IAE, such as that of Jan Herrington, an Australian academic heavily involved in AL, or different student-centered learning methods, including experiential learning, project-based learning, personalized learning, and game-based learning, to uncover further possibilities for SSA PSE instructors to implement student-centered learning approaches in their classrooms. In addition, studies focused on apprenticeship, internship, or work-integrated learning programs can investigate the connection between school practice or practicums and classroom learning in SSA. At the higher level, another direction of research can examine the perspectives of other stakeholders, including education managers, university administration, government, business and corporate sector, and international donors in creating and implementing policies that mandate student-centered learning approaches in education law, curriculum, hiring practices, oversight, and assessments. These areas, while by no means comprehensive, provide suggestions that researchers interested in pursuing this topic can explore to provide a more holistic picture of SSA PSE pedagogy.

Conclusion

This study has investigated the phenomenon of student-centered learning methods, such as AL and IAE, from the perspective of PSE instructors in SSA. Discussed throughout Chapter Two, the literature has widely acknowledged the need to align instructional approaches with the required competencies in today's creative economy, including communication, collaboration, problem-solving, creativity, and innovation. Research showed that while education systems in developed and developing countries have been slowly transitioning towards implementing more active learning approaches, underdeveloped regions, including SSA, remain mostly mired in outdated teaching and learning systems. This traditional, one-size-fits-all system has compromised graduates' abilities to meet the demands of the labor market. Accordingly, this study sought to gain insight into SSA PSE

instructors' viewpoints about their own teaching approaches. Using a qualitative, case study approach described in Chapter Three, this study provided 60-minute semi-structured interviews, subsequent follow-up interviews, and classroom observations with six instructors teaching at Uganda's Makerere University, one of the leading PSE institutions in SSA.

Based on the requirements for qualitative research and the specific branch of interpretivism, this case study identified both themes and important features in a case (Gall, Borg, & Gall, 1996) as seen in Chapter Four through the individual instructor portraits, patterns, and the observed variations that relate to one another (Yin, 1993) through a cross-case analysis in Chapter Five. Chapter Six related the results documented in both preceding chapters back to the literature review. While the discussion reveals that many of this study's findings correspond to the literature, several new insights emerged, thus providing a unique contribution to the literature. This study also highlighted several implications for various educational stakeholders, including instructors, educational managers or administrators, policymakers, the business and corporate sector, and international donors. Finally, the study's limitations suggest future research that would potentially provide new insights into the possibility of implementing student-centered learning approaches throughout SSA. While the study made several recommendations, the first and foremost recommendation calls for the initiation of dialogue amongst the various stakeholders with the idea that everyone can start from where they are. In other words, everyone, from instructors to the government, business and corporate sector, international donors and funding agencies, all have a role to play in continuing to improve teaching and learning in SSA PSE. This approach echoes Sir Ken Robinson's idea of the education system as a live organism whose independent parts need to function synergistically (Schwartz, 2016). An acknowledgment of one's role within the system and the influence that one can have in enacting change will hopefully represent the first step towards achieving improvement in the teaching and learning of SSA PSE.

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APPENDICES

Appendix A: Letter of Initial Contact (Invitation to Participate in the Study)

[Insert Date]

Dear Research Participant:

This correspondence is to request your participation in an educational research study: *Instructors' Perceptions of Authentic Learning (AL) in the Pedagogical Approaches of Sub-Saharan Africa Postsecondary Education: A Case Study of Uganda*. I, along with my Doctoral Research Supervisor and committee of professors, solicit your help. ***The purpose of this study aims to gain further understanding with respect to postsecondary instructors' perceptions of their pedagogical approaches, including the opportunities and barriers that exist in relation to implementing Authentic Learning (AL) as an instructional methodology for postsecondary schools in Uganda.***

This doctoral study is supervised by Dr. Heather Kanuka (Doctoral Supervisor), Professor at Department of Education Policy Studies, and University of Alberta. For questions about this study, Prof. Heather Kanuka can be reached Monday-Friday, 9:00 a.m. - 4:00p.m by either phone: (780) 492 – 6732 or email: hakanuka@ualberta.ca.

I believe that the findings of this proposed study may result in comprehensive understanding of what instructors need to continue exploring AL as a postsecondary school pedagogical approach or instructional methodology that encourages teaching for meaningful learning in Uganda. Additionally, the findings of the proposed study may provide insights into issues related to postsecondary school pedagogical processes and instructional methodologies in not only Uganda but also SSA. It is also further envisaged that the study would stimulate a conversation among Ugandan policy makers and educational stakeholders about appropriate pedagogical approaches/instructional methodologies in postsecondary academic preparation of students, contributing to educational policy change at not only Makerere University but also in other postsecondary institutions in Uganda.

There is limited research on postsecondary school pedagogical experiences of university instructors. One of the goals of this study is to provide an account of your experiences in your own words. If you are interested in participating, I would like to conduct an initial interview with you within the next several weeks. An additional interview may be warranted for the purpose of clarification so that you might verify my conclusions. Your participation in this research project is entirely voluntary.

I do hope that you will choose to assist me with this research project. I look forward to talking to you. Sharing your experiences will be a valuable part of this research. Along with your consent to participate, you can be assured that extreme confidentiality will be maintained. If you agree to participate, please complete, sign and return the **Confirmation to Participate in the Study Form** attached to this letter. This information can be e-mailed to me on the email address provided below.

Please contact me if you have questions or concerns regarding my request. I can be reached Monday to Friday, 9:00a.m.to 4:00p.m by either phone: (780) 686 –2016 or email: muganga@ualberta.ca.

Respectfully,

Doctoral Candidate

University of Alberta

Contact Number: (780) 686 2016

E-mail: muganga@ualberta.ca

Appendix B: Informed Consent Form

1. Study Title

Instructors' Perceptions of Authentic Learning (AL) in the Pedagogical Approaches of Sub-Saharan Africa Postsecondary Education: A Case Study of Uganda.

2. Performance Sites

College of Education, Makerere University, Kampala Uganda

3. Contacts

The following investigators are available for questions about this study, Monday -Friday, 9:00a.m.to 4:00p.m and can be reached by either phone or e-mail. Dr. Heather Kanuka (Doctoral Supervisor), (780) 492 – 6732 or hakanuka@ualberta.ca and Lawrence Muganga (Doctoral Student), (780) 686 –2016 or muganga@ualberta.ca

4. Purpose of Study

The purpose of this study aims to gain further understanding with respect to postsecondary instructors' perceptions of their pedagogical approaches, including the opportunities and barriers that exist in relation to implementing Authentic Learning (AL) as an instructional methodology for postsecondary schools in Uganda.

5. Participants

- a) Inclusion: Individual university instructors who are actively teaching at Makerere University's College of Education
- b) Exclusion: No longer a professor/teacher at the university; anyone unable to participate as a result of being on sabbatical leave or any other reason given.
- c) Minimum number of participants: 6
- d) Maximum number of participants: 8

6. Study Procedures

The study will consist of no more than one round of in-depth interview lasting 60 minutes each and observing the participant's teaching session. An additional follow-up interview lasting 20 minutes may be warranted for the purpose of clarification so that participants might verify my conclusions.

7. Benefits

The conclusions of the proposed study may result in a comprehensive understanding of what instructors want and need to continue exploring Authentic learning as a postsecondary school pedagogical instructional methodology that encourages student-centered learning in Sub-Saharan Africa (SSA). Additionally, the findings of the study may provide insights into issues related to postsecondary school pedagogical processes and approaches/instructional methodologies in not only Uganda but also SSA. It is further anticipated that the study would stimulate a conversation among Ugandan policy makers and educational stakeholders about appropriate pedagogical approaches/instructional methodologies in postsecondary academic preparation of students, contributing to educational policy change at not only Makerere University but also in other postsecondary institutions in Uganda and elsewhere in Sub-Saharan Africa.

8. Risks/Discomforts

There is no known or any foreseeable risk.

9. Measures Taken to Reduce Risk

Only the principal investigator will conduct the interviews; interviews will be conducted in a prior arranged, secure location, and it is assured that confidentiality is valued and of primary concern.

10. Right to Refuse:

Participation in the study is voluntary and subjects may change their mind and withdraw from the study at any time without penalty or loss of any benefit to which they may be otherwise entitled.

11. Privacy:

This study is confidential. While coding will be used, subjects cannot be identified in the research data directly or statistically, and nobody can trace back from research data to identify a participant. Confidentiality will be maintained by keeping a research file that will not be viewed by anyone other than the principal investigator and research supervisor. Records will also be maintained at the residence of the principal investigator in a secure location. The interview tapes (audio recorded tapes) and any other data collected during the observation of the participant's teaching sessions will be protected by the use of a fictitious name assigned to me and both recorded tapes and transcripts will be locked in a cabinet in a locked room, or on a password protected computer, with the file encrypted. Results of the study may be published, but no names or identifying information will be included in the publication. Data will be kept confidential unless release is legally compelled.

12. Financial Information:

There will be no financial or in-kind incentives given to participants of this research project.

13. Withdrawal:

Your participation is completely voluntary. You may withdraw from the study at any time where practicable, for any reason, and without explanation. If you would like to review and potentially make changes to the transcript of the interview, you may withdraw up to two weeks from the time of being provided a copy of the transcript. If you decline to review the transcript, you may withdraw up to two weeks from the date of our interview. If you choose to withdraw from the study, all information you provided during the interview would be withdrawn from the study and destroyed.

14. Removal:

The investigator will remove any individual from the study without his/her consent after two (2) missed interview appointments.

15. Further Information:

The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

16. Consent Statement:

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I sign it.

Participant's Name (printed) and Signature

Date

Participant's email address

Phone

Name (printed) and Signature of Person Obtaining Consent

Date

Appendix C: Confirmation to Participate in the Study Form

I am willing to participate in the interview portion of this research study.

Print Name:

Signature:

Date:

I can be reached at the following number(s) and e-mail:

Phone:

E-Mail:

The best time(s) for me to speak to you are the following:
(Please check days and indicate the times):

Day:	Time:
<input type="checkbox"/> Monday
<input type="checkbox"/> Tuesday
<input type="checkbox"/> Wednesday
<input type="checkbox"/> Thursday
<input type="checkbox"/> Friday
<input type="checkbox"/> Saturday
<input type="checkbox"/> Sunday

Appendix D: Interview Guide

- 1) Tell me about the process by which you began teaching at your university?**
 - a) Describe how you arrived at the decision to teach at this University
 - b) How did you learn about the availability of a teaching position in this university?
 - c) How did you decide to seek a teaching opportunity with this university?
- 2) What was your experience in the process of teaching at this University?**
 - a) Tell me about your interactions with the students
 - b) How would you characterize your experiences in teaching at your University?
 - c) Tell me about a time when you think your teaching was successful?
 - d) Tell me about a time when you think your teaching was unsuccessful?
- 3) Tell me about your perceptions regarding the pedagogical approaches or instructional methodologies implemented in this university**
 - a) Were you oriented on how to teach in a postsecondary school environment? If yes, did you attend a specialized course or one taught by the department in which you teach?
 - b) Tell me about the pedagogical approaches you use to teach your students. What are the limitations of these approaches?
 - c) Tell me about your pedagogical/instructional methods, how do they relate to the real-life learning need of students at university?
 - d) Tell me about situations or times when you think your pedagogical or teaching methodology connected the classroom (learners) to the real world?
 - e) How would you characterize the relationship of your pedagogical approaches with the labour market need of graduates with real-life skills representative of the contemporary creative economy?
 - f) Does the institution give you the freedom to experiment with your pedagogy?
 - g) Do you receive any retooling in pedagogy? If yes what assistance does the university offer in creating, introducing, and implementing new pedagogies?
- 4) Tell me about your perceived experiences (if any) of the degree to which student-centered learning, especially Authentic Learning (AL), is important, implemented and supported at your university.**
 - a) What do you know about authentic learning as an instructional methodology?
 - b) Have you tried to make an effort to implement authentic learning into the curriculum or classroom? Were your efforts successful or unsuccessful? Why or why not?
 - c) Do you ever apply this instructional methodology in your teaching or do other instructors in your university use this methodology?

- d) Tell me how you think your knowledge about authentic learning could be improved.
- e) Have you had any training or orientation into the use of or implementation of a pedagogy involving student-centered learning or authentic learning? If yes by who and when?
- f) Tell me about any support you have received from both Educational Managers and Educational Policy Makers in implementing new innovative pedagogical approaches
- g) How best would authentic learning be implemented in your institution and by whom?
- h) What obstacles or barriers stand in the way of your ability to implement authentic learning in the classroom and curriculum?
- i) What plans may be at your disposal to limit the challenges you mentioned?

5) Tell me your perceptions about the Indigenous African Education (IAE) pedagogy (African Tradition Educational pedagogy)?

- a) What do you know about Indigenous African Education (IAE) pedagogy?
- b) Do you see Indigenous African education (IAE) pedagogy as something you could tap into to support your current pedagogical approaches (instructional methodologies? And if yes why?
- c) If your answer to the above question was yes, how would you use Indigenous African Education pedagogy to enrich your current pedagogical approaches (instructional methodology)?

6) To wrap up, tell me how you think teaching and learning in your country can be improved? Whose role should it be to guide the process of improving teaching and learning and what is the role of the labour market (employers) in all this?

Feel free to call me if you begin to think or anything you want to add or clarify.

NOTE: All follow-up interviews will follow this method of questioning. Probing questions will be used throughout the interview(s) to gain a more comprehensive description of participants' experiences.

Appendix E: Information about the observation to students

The following information will be provided verbally at the beginning of the class, prior to the classroom observation:

I am a doctoral student at the University of Alberta, in Canada. As part of my doctoral program, I am required to complete a doctoral dissertation (research project). The purpose of my study is to gain further understanding with respect to postsecondary instructors' perceptions of their pedagogical approaches, including the opportunities and barriers that exist in relation to implementing Authentic Learning as an instructional methodology for postsecondary schools in Uganda.

As part of the data collection for this study, I am conducting classroom observations. I will be observing the following in your class today:

- a) The student-teacher interactions,
- b) Teaching strategies: Are the instructor's teaching methods appropriate to the goals of the class? Are the instructor's teaching methods in support of real-life/authentic learning for students? Is the instructor able to vary the pattern of instruction through movement gestures, voice level, tone and pace? Does or could the instructor use alternative methods such as media, discussion, lab, questioning? If appropriate, does the instructor use students' work (writing assignments, homework problems, etc.)? [Is] the use of various teaching strategies (lecture, debate, experiential, handouts, real-life learning, etc) effectively integrated?
- c) How you, the students, are reacting to the instructor's teaching methodology (ies),
- d) Student engagement and participation (e.g., questions, discussions, class activities, etc.)
- e) Presentation and enthusiasm: Does the instructor demonstrate and generate enthusiasm for the course?
- f) The instructor's teaching effectiveness
- g) Discussion: How is discussion initiated? Are the purpose and guidelines clear to students? Does the instructor encourage student questions?
- h) Kinds of Questions: Are questions rhetorical or real? One at a time or multiple? Does the instructor use centering questions (to refocus students' attention), probing questions (to require students to go beyond a superficial or incomplete answer), or redirecting questions (to ask for clarification or agreement from others)?
- i) Level of Questions: What level of questions does the instructor ask? Lower level questions generally have a "right" answer and require students to recall or list facts. Higher level questions ask students to generalize, compare, contrast or analyze information.
- j) What is done with student questions: Are questions answered in a direct and understandable manner? Are questions received politely or enthusiastically?
- k) What is done with student response: How long does the instructor pause for student responses (formulating answers to difficult questions takes a few minutes)? Does the instructor use verbal reinforcement? Is there a non-verbal response (smile, nod)? Is the instructor receptive to student suggestions or viewpoints contrary to his or her own?
- l) What are note-taking patterns in class (do students take few notes, write down everything, write down what instructor puts on board, and copy each other's notes in order to keep up with lecture)? Are students listening attentively, slumped back in desks, heads on hands? Are there behaviors that

are outside of the mainstream of class activity (random conversations among students, reading of materials not relevant to class)?

The data I am collecting today will be in the form of hand-written notes. None of the information I am collecting during this classroom observation will involve collecting personal student information; nor will any of the data involve personally identifiable information (e.g., names); nor will any audio/video recording devices be used. The research project I am working on has been approved by the Ethics Research Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615. There are no risks associated to this research to you or your privacy.

Thank you.