Universal Primary Education and the Uganda's Economy

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Abstract

Despite registering positive results, Uganda's Universal Primary Education plan (UPE) faces significant unresolved challenges instigated by widespread corruption in the school system, ghost teachers and ghost schools, lack of enough infrastructure, the lack of schooling materials such as pens, pencils, lunch, and books. Ascribed to the validity of these concerns, the percentage of pupils dropping out of the UPE program is a significant concern to the Ugandan education system. This study probed the contributions of the UPE program to Uganda's economy using demographic variables such as UPE teacher's employment rates, UPE student's literacy rates, UPE student's dropout rates, and UPE student's completion rates. The investigator applied numeric archived information retrieved from the Uganda Ministry of Education and Sports facts files. The data were analyzed using Pearson's correlations, stepwise regressions, and descriptive statistical methods. The alpha level for the study was set at $p < .05$. The sampled data used for the analysis was collected between the years 2000-2015. The Statistical Package for Social Science (SPSS) 25.0 was the appropriate software for the data analysis. The Cronbach alpha was used to measure the internal reliability of the selected research data. The analysis found statistically significant evidence to support the relationship between Universal Primary Education and UPE student's completion rates, UPE student's dropout rates, and UPE teacher's employment rates. Universal Primary Education and UPE student's literacy rates were not statistically significant. The findings of this study highlight noteworthy knowledge for scholars in the research field that warrants further investigation for future studies. The research results might provide a fair evaluation of the Universal Primary Education (UPE) program to educational leaders, donor organizations, and the Uganda Government.

Universal Primary Education and the Uganda's Economy

Introduction

Uganda was one of the first African countries to propose the implementation of the Universal Primary Education program. The Universal Primary Education (UPE) policy is a millennium development Goal 2 (MDG 2) aimed at ensuring that every child in Uganda, boys, and girls alike, would complete a full course of primary schooling (Burnett & Felsman, 2012). The Universal Primary Education policy was commenced with economic justifications to improve literacy and reduce poverty by increasing access to primary education in Uganda (Bategeka et al., 2004; Ngaka, 2006) The Universal Primary Education plan considers that student's register for school at an opportune age, advance through the system and complete the whole primary education cycle.

Acquiring education is a constitutional right in Uganda (Juuko & Kabonesa, 2007). Articles 30 and 34 of the 1995 Uganda Constitution entitle primary education to all children as a human right (Uganda Const. art. 30 & 34). Following the stipulations of Uganda's Constitution of 1995, the 1992 Government White Paper on Education was formulated as the benchmark of formal strategy on the Ugandan education system. The key policy thrust in the 1992 Government White Paper provides for fair access to standardized and affordable education to every Ugandan (Juuko & Kabonesa, 2007). Hence, Universal Primary Education was initiated under the 1992 Uganda's Government White Paper with the initial objectives of achieving human development by; (a) providing the facilities and resources to enable every child to enter and remain in school until the primary cycle of education is complete, (b) making education equitable to eliminate disparities and inequalities, (c) ensuring that education is affordable for most Ugandans, (d) reduce poverty by equipping every individual with basic skills (Bategeka et al., 2004).

Universal Primary Education and the Uganda's Economy

At implementation, the Universal Primary Education (UPE) plan eliminated tuition fees and the Parents and Teachers Association (PTA) charges (Grogan, 2008). MoFPED (2013) found that gender inequalities and access to schooling had drastically improved right after the implementation of free basic education. The removal of the primary schooling fees resulted in a substantial increase in gross enrollments from 3.1 million in 1996 to 7.6 million in 2003 (Bategeka et al., 2004). By 2013, the total pupil enrollments in primary schools had reached 8.4 million (Agaba, 2014). Namirembe, Kavuma, Cunningham, and Sebaggala (2017) noted that Uganda's primary school registrations had increased to 8.7 million students by 2016.

Despite registering positive results, the Uganda Universal Primary Education program faces significant unresolved challenges instigated by widespread corruption in the school system, ghost teachers, and ghost schools, the lack of schooling incentives such as pens, pencils, books, large classes, and the lack of school lunch (Namukasa & Buye, 2007). United Nations (2013), concluded that the objective to reduce the number of pupils out of primary education had not quantitatively declined. This study focuses on Universal Primary Education (UPE), UPE student's completion rates, UPE student's dropout rates, UPE student's literacy rates, and UPE teacher's employment rates.

Background of the Problem

Under the UPE system, the government of Uganda is committed to paying tuition for students from primary 1 to primary 3 at the price of 5,000 Uganda shillings (MoES, 1999). The 5,000 Uganda shillings are comparable to $1.40 (Bank of Uganda, 2021). The Uganda government also agreed to pay 8,100 Ugandan shillings for students attending the UPE program from primary 4 to primary 7 (Grogan, 2006). This is equivalent to two dollars and twenty-seven

cents ($2.27). Other schooling costs such as transportation, lunch, books, pens, pencils, and uniforms remained as out-of-pocket expenses to parents and guardians (Bruno, 2014).

Nishimura et al. (2008) indicated that the percentage of pupil enrollment in primary schools increased dramatically after the inception of the UPE program in Uganda. The gross registration in public primary schools rose from 57 percent in 1996 to about 85 percent in 1997 (Essama-Nssah., 2011). By 2008, over 8.2 million pupils had enrolled in public primary schools in Uganda (Sewamala et al., 2011). The improvement in access to Universal Education increased the female and male enrollments ratios by 23% and 19% respectively by the year 2000 (Deininger, 2003). Quantitatively, the prosperity of the Universal Primary Education policy put notable constraints on Uganda's school infrastructure (Essama-Nssah., 2011).

The quality and standards of education in Uganda's public primary schools have remained weak and declining despite the improvement in access to schooling (Hedger et al., 2010). The Universal Primary Education program still faces persistent and nagging problems such as prominent levels of school dropout rates, class repetition, low completion rates, low literacy rates low level educated teachers, and high pupil/teacher ratios (Mugerwa, 2016; Sewamala et al., 2011). Another negative aspect of the program is the limited number of classrooms and textbooks, which results in poor learning conditions (Essama-Nssah et al., 2008). Universal Primary Education was initiated as an economic strategy to enhance human development imbalances in the Ugandan society, however, the education plan lacks substantial standards (Nakabugo, 2008; Mwesigwa, 2015).

Uganda's Universal Primary Education program is bordered by many other significant challenges. Some of the principal problems are witnessed by teachers who work under economic difficulties (Agaba, 2014). For example, the government of Uganda has failed to meet the

teacher's welfare demands like salary increments and the provision of standard classroom facilities (Agaba, 2014; Mwesigwa, 2015). In retaliation, the teachers employed with the Universal Primary Education system often resort to strikes and demonstrations, and the escalation of the widespread absenteeism from school duties (Agaba, 2014). Talemwa and Eupal (2009) observed that over 35% of public primary school teachers in Uganda were guaranteed to miss at least two workdays in a week. Teacher strikes were found to have a significant association with the declining progress in Uganda's UPE schools.

Statement of the Problem

The general problem is that the percentage of pupils' enrollment to government primary schools increased dramatically after the inception of the Universal Primary Education (UPE) Plan (Behrman, 2015). The gross registration in Uganda's public primary schools rose from 57% in 1996 to about 85% in 1997 (Essama-Nssah., 2011). By 2008, over 8.2 million pupils had enrolled in Uganda's UPE schools (Sewamala et al., 2011). The improvement in access to primary education created a shortfall in teachers, books, chairs, desks, and classrooms for over 70% of the pupils attending government primary schools (Mwesigwa, 2015).

Another layer to the general problem is that the government of Uganda has failed to fulfill its task of spending 20% of the national budget on education as pledged under the National Development Plan (Elisabeth, 2012). For example, the average government budget apportioned for education had decreased from 17% in 2007 to 14% by 2012 (Elisabeth, 2012). Additionally, the Uganda education sector heavily depends on donor funds from the DFID, World Bank, USAID, Irish Aid, CIDA, Netherlands MFA, and the Belgian Embassy, who had threatened to withdraw their funding owing to widespread corruption (Wordpress, 2014). According to Mwesigwa (2015), the Universal Primary Education plan in Uganda had falling apart.

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The specific problem is that the primary school completion rates are low in Uganda's Universal Primary Education (UPE) program. For example, the pupil's survival rate from grade one to grade seven was estimated at 74% in 2000. However, this percentage had declined to 30 percent by 2015 (MoES, 2015). Uganda was found to have the highest pupil dropout ratios at 71% in all East African public schools (Kagolo, 2012). This study explores the association between UPE and UPE student completion rates in Uganda as the principal purpose. Primary school completion rates are remarkable because the UPE program was enforced as an economic instrument to reduce poverty by minimizing gender inequalities in education and increasing access to primary education. The goal of the UPE initiative ensures that both boys and girls enroll and complete the full course of primary schooling.

Research Questions and Hypotheses

Research Questions. The research questions were:

RQ1: What is the degree of association between Universal Primary Education (UPE) and UPE student completion rates in Uganda?

RQ2: What is the relationship between Universal Primary Education (UPE) and UPE teachers' employment rates in Uganda?

RQ3: What is the relationship between Universal Primary Education (UPE) and UPE students' literacy rates in Uganda?

RQ4: What is the relationship between Universal Primary Education (UPE) and UPE students' dropout rates?

Hypotheses. The following hypotheses were used to explore the research questions:

H1o: There is no significant association between Universal Primary Education (UPE) and UPE student completion rates in Uganda

H1a: There is a significant association between Universal Primary Education (UPE) and UPE student completion rates in Uganda.

H2o: There is no significant relationship between Universal Primary Education (UPE) and UPE teachers' employment rates in Uganda.

H2a: There is a significant relationship between Universal Primary Education (UPE) and UPE teachers' employment rates in Uganda.

H3o: There is no significant relationship between Universal Primary Education (UPE) and UPE student's literacy rates in Uganda.

H3a: There is a significant relationship between Universal Primary education (UPE) and UPE students' literacy rates in Uganda.

H4o: There is no significant relationship between Universal Primary Education (UPE) and UPE student dropout rates in Uganda.

H4a: There is a significant relationship between Universal Primary Education (UPE) and UPE student dropout rates in Uganda.

Significance of the Study

The percentage of pupils dropping out of the Universal Primary Education (UPE) program is a significant concern to the Ugandan education system. The reversal of this trend would foster the creation of skilled labor and the improvement of literacy in Uganda's society. A well-educated economy and an equally skilled workforce are a necessity for stimulating a country's economic development (Govender & Steven, 2004). The rationale for having an educated society confers with benefits such as informed decision-making, personal empowerment, and self-esteem that are vital in the developmental process in social communities.

The completion of primary schooling would expand reading and writing competencies and allow the critical analysis of data. Primary education is the milestone that produces teachers, doctors, and scientists that may help foster Uganda's economic development. UNESCO (2013) suggested that primary education was one of the strongest economic stimulants because it improves individuals' wages, hence reducing poverty. Education is associated with social-economic achievements and capabilities such as maintaining good health, life-long learning, and earning higher wages The accomplishment of basic school would create awareness amongst students about the diseases control methods, decrease the vulnerability to health risks, and enable girls to reach their core life potentials in parity with boys (UNESCO, 2013).

Uganda has one of the world's youngest populations with about 56 percent of its youth under the age of 18 years (Musana, 2015). An abundant and young labor force can propel any developing economy by being participative in its social development process. However, Uganda is documented as one of the poorest economies in the world with about 56% of the population living in poverty (Danja, 2012). McCartney and Phillips (2011) discovered that children living in poverty were more likely to fall out of their primary school cycle. Universal education is paramount to the Uganda's economy because it might help in reducing inequalities and poverty. Developing nations like Uganda can't uphold progressive economic development without considerable speculation in its education systems.

Significance of the Study to Leadership

Primary education broadens the chances for employment opportunities that may result in increased income levels (Dowd & Greer, 2001). This study is relevant to Uganda's field of education because it provides a foundation to evaluate the performance of the Universal Primary Education (UPE) program. Reducing gender inequality was one of the objectives of the UPE

policy in Uganda. The need to increase women's education and employment is justified because gender differences in capabilities and opportunities are more prevalent among poor nations like Uganda. Women with some basic education qualifications were more likely to get better jobs, practice family planning, get involved in community administrative services, and have little chances of getting exposed to diseases such as HIV/AIDS (World Bank, 2015).

This study is significant because it serves as a basis to educate leaders in the Uganda education system by explaining the gender disparity in enrollments, literacy, teacher employment rates, primary school completion and dropout percentages. Although the gender gap in Uganda's primary schooling has reduced eminently, however, still 78% of girls drop out of primary education annually compared to 48% boys (Douglas, 2003). The knowledge gained from this study is vital and might help school leaders and administrators in Uganda to develop educational policies that promote and encourage easy access to primary schooling, pupil retention, and the provision of quality education services.

Theoretical framework

Ferrell's model of equality. Farrell (1999) pointed out that access survival, output, and outcome are the four essential types of equality/inequality as viewed in a school cycle perspective. Equality of access relates to the accessibility of becoming registered to an education system (Farrell,1999). Increasing access to primary schooling was one of the goals of the UPE program in Uganda. Farrell's approach to the equality of access to education correlates to the original aim of the MDG 2 and the UPE program. Access to primary school is essential to the Ugandan society because it reduces the number of individuals out of school, and improves literacy and communication skills.

Farrell's equality of survival explains the process of regularly attending school, getting

promoted, and completing the education cycle. Completing a primary cycle has been a problem

to the success of the UPE program. Universal Primary Education in Uganda is an MDG 2 goal

aimed at ensuring that all boys and girls can complete their full course of primary schooling by

2015 (Burnett & Felsman, 2012). The completion of primary education in Uganda ensures the

promotion to secondary school. The equality of survival in education is paramount because it

might be the right path to improving individuals' incomes in Uganda's society.

Farrell's equality of output pertains to the assumptions of studying similar material at

different school levels. Government primary schools in Uganda lack qualified teachers and

adequate classrooms (Grogan, 2008). It's evident that educational disparities persist in Uganda's

education system caused by differences in academic standards. Kagoda (2012) indicated that

students who graduate from the UPE system have problems in reading, writing, and doing

arithmetic due to the differences in access to education amenities. Although Farrell's equality of

output in education supports the provision of similar scholastic material for all individuals, this

notion has not been equally apportioned to both public and private primary schools in Uganda.

Equality of outcome assumes that individuals would live comparable lives after

completion of their education cycle (Farrell, 1997). This approach reasons that individuals would

have equal access to general amnesties of life, work at relatively same jobs, and would probably

live homologous lives after school completion. Ascribed to inequalities in access, opportunities,

and distribution of schooling resources in the UPE framework, Farrell's approach to outcomes

after education is unbalanced. Individuals that attend and graduate from private primary schools

are more likely to realize the benefits to the equality of outcomes.

Farrell's Model of Equality and Equity in Education Defined
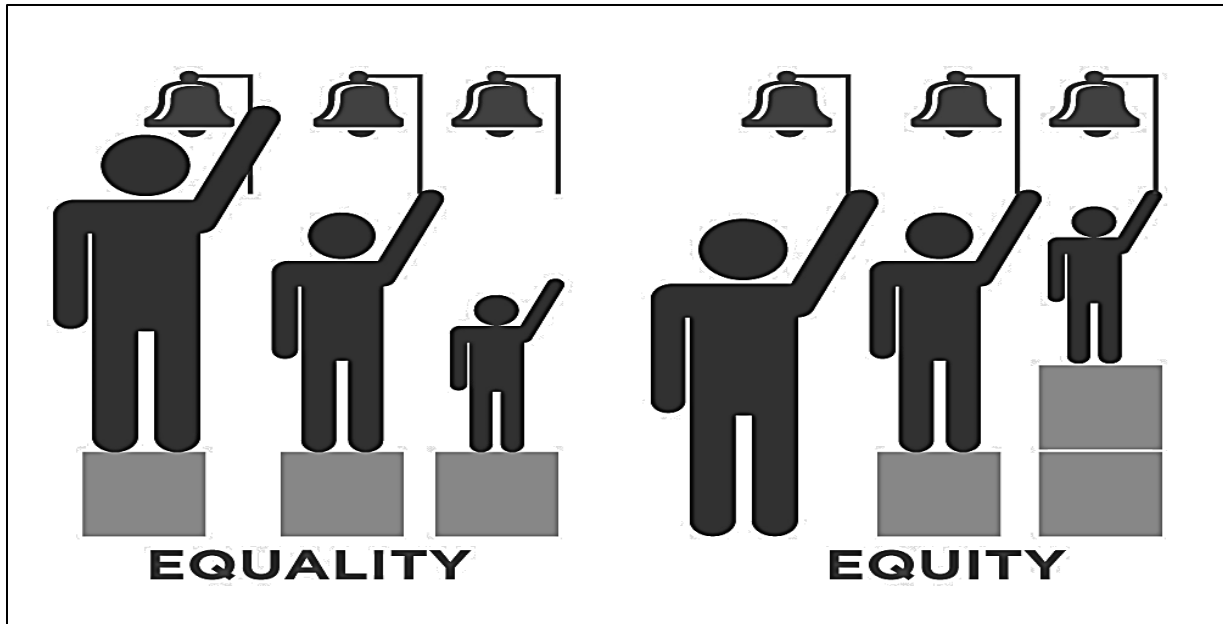
Figure 1. A pictorial illustration of equality and equity. Equality is about sameness (Rubenstein, Schwartz, Stiefel, & Amor, 2007). Equality ensures everyone gets the same education. Equity is about fairness (Rubenstein, Schwartz, Stiefel, & Amor, 2007). Equity allows each student to get their desired needs. Retrieved from: www.aacu.org/publications/step-up-and-lead.

Ferrell's model of equity. Equity includes fairness and inclusion (Kranich, 2001). Gender inequality and inequity are some of the fundamental constituents of social gradation that shape fairness in how individuals live, work, and grow through society. Increasing women's education is one of the millennium developments targets to promote gender equity and empower women in developing nations. In Uganda, unfairness in education persists because of traditional ways where girls are less important than boys. Farrell's equity approach is a good fit for this study because the Universal Primary Education policy encourages fairness in education. Achieving gender equity in education is a significant opportunity for Uganda women to get involved in the country's social and economic sectors.

Sen's Human Development Approach

The human development process is about widening options so that men and women can have an approach to education and resources required to live a decent life. The human development approach is the exercise that broadens the actual independence that individuals possess (Sen, 1999). Sen's theory of human development is a conceptual framework that addresses challenges such as poverty and gender inequalities that persist in developing countries. Universal Primary Education is the economic foundation that will help individuals in Uganda to attain better amenities of life. Accessing education can improve income inequalities and create wealth, and these are essential in pursuing and achieving defined personal goals.

Sen's ideas provide relevant and core principles of a developmental approach related to the objectives outlined by the Universal Primary Education (UPE) program. The requirement for human development as a criterion for economic growth can be used to explain the need for education as a remedy for poverty reduction and gender inequalities in most third-world nations. Sen's human development approach provides substantial evidence that supports the need for primary education in developing countries. The human development approach can be a considerable help to Uganda's policymakers in analyzing the diverse challenges facing the Universal Primary Education program.

Sen's Literacy Approach

Sen's Capability approach acknowledges literacy as a salient social privilege, a significant determinant of well-being, and a unique purpose for human development (Maddox, 2008). Literacy is a universal right (Nussbaum, 2006). Literacy is an important social entailment for all citizens of the nation. Sen (1999) supported the need for women's literacy as an essential benefit to family values and a necessity for balanced social-economic development. Sen's

literacy approach is significant because it's a representation of what both men and women can do in Uganda to better their lives.

Human literacy capabilities equate individuals with the ability to read, write, communicate, and take part in community activities with confidence. Sen (2005) explained that education and literacy helps minimize human unconfident by making the lives of individuals more secure, safe, and fulfilled. Educated people have better chances of being employed in good-paying jobs. Literacy is instrumental in helping people recognize and understand their legal rights. Educated women make better family planning decisions and have increased chances of pursuing political careers (United Nations, 2013). Literacy is a necessity for well-being and human development. The inability to read, write, count, and communicate is devastating and deprivation to the human development process. The insights highlighted by Sen's capability approach are globally recognized for their proliferation that puts poverty reduction and access to education as a focus for global developmental programs. Sen's and Farrell's educational approaches can be used as guiding tools that help to guard against disparities in opportunity and entitlement in Uganda's school system.

Review of Related Literature

Education in Uganda Before Independence

In 1907, Winston Churchill a British warlord prime minister was so impressed with Uganda's landscape that he named it the pearl of Africa (Churchill, 1908). This name was a description of Uganda's beautiful scenery, tourist attractions, and equatorial climate. The Pearl of Africa remained a British protectorate for over 70 years until independence (1894 - 1962). According to Sekamwa (1997), Uganda had its educational system before missionary education was inaugurated in 1877. The indigenous education plan in Uganda was intended to teach native

culture, ethical behavior, the local language, and counting in native languages. Native education also taught Ugandan citizens technical skills, environment survival expertise, and self-defense skills in case of danger. Hanson (2010) described the Ugandan education system as entirely different from the schooling methods that were introduced by the British government through the white missionaries.

Missionary Introduce Education in Uganda in 1877

Before the coming of the missionaries, there were no formal schools or classrooms in Uganda (Sekamwa, 1997). Sekamwa (1997) revealed that most Ugandans, including kings and chiefs, did not know how to read and write by English standards. Ugandan kings used local dialects to communicate and rule their natives. When the British and French missionaries arrived, they established learning centers to teach Ugandans how to read and write in English and French (Hanson, 2010). Garvey (2006) and Ofcansky (1996) reported that the first primary schools in Uganda were built around missionary homes. However, the missionary secondary schools were later established between 1900 and 1920 to educate the king's children, clan leaders, and government officials.

Sekamwa (1997) acknowledged that the western teaching syllabus was introduced to teach Ugandans how to read and write the English language, and appropriately understand arithmetic, social studies, religious knowledge, and science subjects. Although learning to read and write in English was an important topic, the missionaries laid much emphasis on teaching African geography and history (Musgrave, 1952). The idea was intended to introduce Ugandans to other cultures and develop a better knowledge of their neighboring countries. Sekamwa (1997) revealed that Makerere College was opened in 1922 to prevent Ugandans from traveling abroad for higher education in fear of assimilating western ideas that would trigger off native rebellions.

This educational institution was later renamed Makerere University, and presently, it's the largest University in Uganda.

Missionaries Introduce Secondary Schools in Uganda 1920s

Sekamwa (1997) indicated that the first secondary schools were established in Uganda around the first half of the 20th century. Secondary schooling was either affiliated to the Roman Catholics or the Protestant Missionaries based on the founder's religion (Garvey, 2006). Makerere College Secondary School was opened first in 1922 to educate clan leaders, chiefs, kings, and their children (Sekamwa, 1997). Okello (2014) explained that later in 1925, the Chwa Memorial College was opened as a technical institution to equip Ugandans with technical and agricultural skills. The government of Uganda also used ideologies brought by the missionaries to establish many more private secondary schools.

Ofcansky (1996) revealed that many secondary private schools were operating alongside schools administered by Protestants, Catholics, and Muslims by 1950. Sekamwa (1997) reported that despite challenges such as insufficient and unqualified teaching staff, secondary school education had gradually expanded to about 5500 African students by 1950. By 1951, secondary schooling had replaced primary school as the minimum requirement to earn a professional job (Hanson, 2010). The preceding years before Uganda's independence in 1962 witnessed the country's education trend decline because of political struggles and the departure of white missionaries foreseeing the upcoming of World War II.

Overview of Uganda's Present Education System

A report by the Uganda Ministry of Education and Sports, (MoES, 2013) indicated that the framework of Uganda education is comprised of the 7-4-2-3 system as shown in Figure 2.

The 7-4-2-3 system portrays 7 years of primary education, 4 years of ordinary secondary school level, 2 years of advanced secondary school level, and 3 years of university education.

Pre-School Education

Pre-primary education in Uganda is intended for children aged between two to five years. This stage of education in Uganda is comprised of nursery or kindergarten schools with pupils being prepared to graduate into primary schooling. Since the government of Uganda is not obliged to fund pre-school education, the financial obligations directly fall upon the parents of the children. To ensure the smooth running and success of pre-schools, the government of Uganda provides guidelines and minimum standards for the school building, equipment, and curriculum for teachers (MoES. 2013). The government also provides teacher training programs to guarantee that the teachers have the requisite criteria and eligibility, and instruments required to teach. (The Education; Pre-primary, Primary and Post Primary Act no 13 of 2008).

Primary Education

Public primary education in Uganda is 7 years for ages 6 to 12 according to the Universal Primary Education policy. The 2010 Uganda school curriculum divided primary education into three defined levels. The lower primary levels are comprised of grades 1-3 or P1-3. The lower school levels are followed by the grade 4 or P4 and upper education stages 5-7 or P5-7 as shown in Figure 2. Primary schooling in Uganda is meant to provide students with a basic education in English, Mathematics, Science, and Social Studies. However, there are other subjects like Art and Craft, Local Languages, Physical Education, and Music taught but not tested. To get promoted to secondary schooling, grade 7 pupils must pass the Primary Leaving Examinations (PLE) as shown in Figure 2. Primary seven students graduate with the Primary Leaving Certificate. (The Education; Pre-primary, Primary and Post Primary Act no. 13 of 2008).
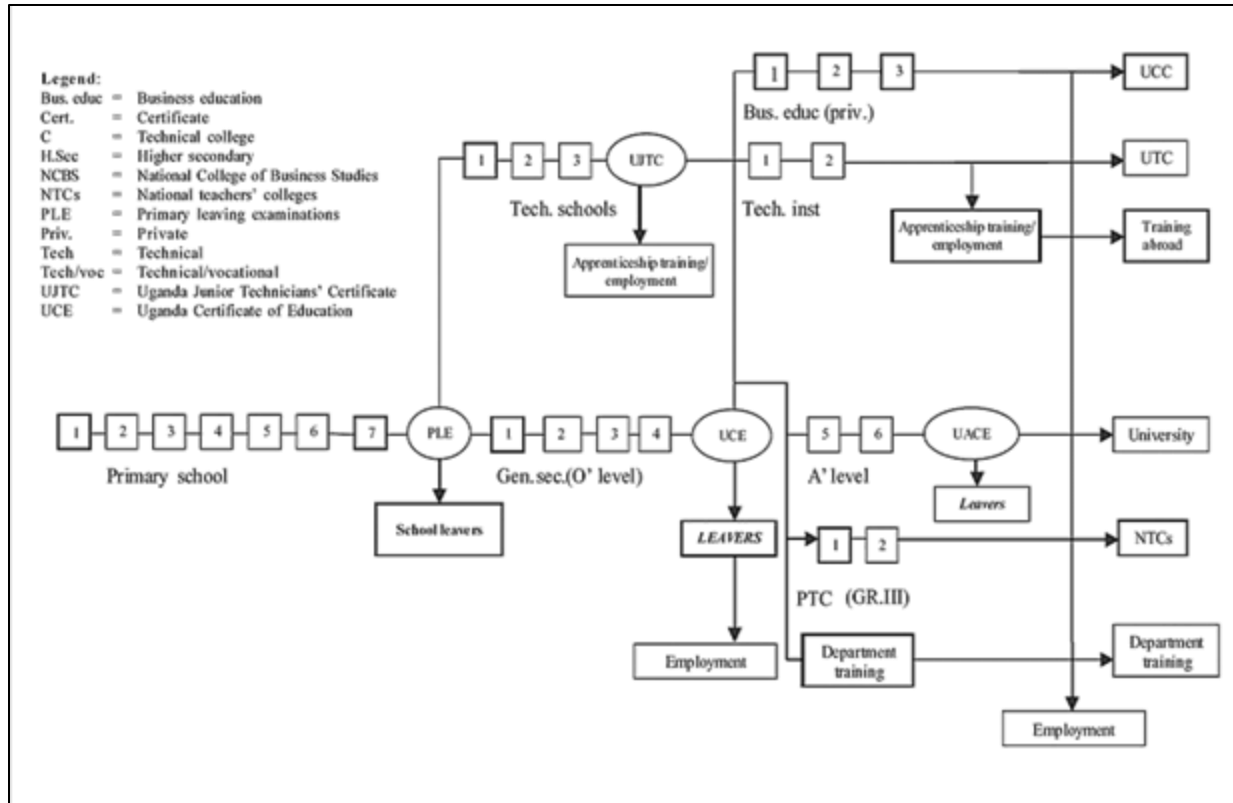
Figure 2. Structural gradation of the Ugandan education system from primary school to college education. Uganda education is comprised of the 7-4-2-3 system. This education structure implies 7 primary schooling years, 4 years of ordinary level education, 2 years of advanced level, and 3 years of university and tertiary education (Retrieved from:

http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Uganda.pdf.

Secondary Education

Secondary school education in Uganda is divided into two cycles as shown in Figure 2. The attainment of the Uganda Certificate of Education (UCE) is the reward for completing the first four years of lower secondary schooling. This stage of education is also known as the Ordinary level. The students that complete the ordinary level can enroll to technical schools and vocational training centers that offer three-year education programs. The pupils that take this

route graduate with the Uganda Junior Technical Certificate. The students that complete the second cycle of the two-year high school attain the Uganda Advanced Certificate of Education (UACE). The two-year higher education is also known as the Advance level in Uganda as shown in Figure 2. The Advanced level is the minimum certification required by Uganda's ministry of education for enrollment into university and other tertiary institutions. The student's that complete the advanced level certificate but are unable to join university or other tertiary institutions qualify for enrollment to Technical Colleges, the Uganda College of Commerce and Polytechnic colleges that offer diplomas after two years of schooling.

Higher Education

The tertiary institutions and universities offer higher education to students that attain the Uganda Advanced Certificate of Education (UACE) in Uganda as shown in Figure 2. The Technical Colleges, Uganda College of Commerce, and Polytechnic institutions offer two-year courses qualifying individuals to the Uganda diploma or Master Craftsman Certificate. Students who complete the UACE qualify to enroll in the National Teachers Colleges. The students that enroll in National Teachers Colleges earn the grade 3 teachers certificate that certifies them to teach at primary and secondary schools. At the college level, a bachelor's degree trajectory lasts for three and four years. The Master's degree programs entail 18 months while doctoral programs require three to five years of education.

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Educational Reforms in Uganda

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Commencement of the UPE Plan in Uganda 1997

The Government of Uganda implemented the Universal Primary Education (UPE) program with the commitment to pay the student tuition charges, provide academic facilities, and facilitate teacher training and salaries. The following components comprised of the UPE program

at initiation; (a) abolition of school fees for all school-age going family members; (b) increase the nation's outlay on basic schooling; (c) introduce dual-class shifts for 1st and 2nd grades pupils; (d) establish mother, father, and guardian control for the provision of school lunch, school uniform, and residence while the government allocates tuition, textbooks, instructors, physical and organizational structures, and (e) eliminate the Parent Teacher Association fees.

Achievements of Universal Primary Education in Uganda

Target (a), Uganda's Net Enrollment Ratio in UPE schools

After the introduction of the UPE system in Uganda, the pupil's registrations to primary education increased from 5.3 million in 1996 to 7.6 million students in 2003 (Sekandi & Chen, 2005). By 2010, the student registrations to the UPE program in Uganda had increased to 8.2 million which accounted for about 90 percent of the net enrollment (Agaba, 2014). MoFPED (2014) pronounced that the total registration for boys was almost equal to that of girls in UPE schools at 49% and 50% respectively by 2009. The inception of the Universal Primary Education (UPE) plan aversively increased the number of girls accessing primary education leading to an almost 50/50-mark ratio between the boys and girls by 2010 (MoES, 2013). Aguti (2002) acknowledged that for the first time the trend of Uganda's education indicated an increment in girls' enrollment from 39% in 1970 to nearly 49% by 2001. The UPE policy seemed not only pro-poverty but also pro-girls because it had significantly helped in the minimization of gender equality while fostering female empowerment.

Target (b), Proportion of UPE Pupils Completing the Primary School Cycle in Uganda

The report by MoES (2015) indicated that the decline in UPE student's completion rates was associated with dropouts especially in the transition from Primary 6 (P.6) to Primary 7 (P.7). For example, in 2010, out of the 96% of pupils that enrolled in Uganda's free primary school

system, only 60% stayed in school up to primary 6, while 54% graduated (UBoS, 2015). Primary six and seven students were found to be more prone to absenteeism, early marriages, lack of schooling interest, and class repetition (MoES, 2015). In East Africa, Uganda was found to have the lowest UPE student completion rates (Kagolo, 2012).

Target (c), Literacy Rates for Universal Primary Education Students in Uganda

Improving the literacy level in developing nations by 2015 was paramount at the 2000 Dakar education reform meeting. In Uganda, reducing illiteracy was commissioned under the Universal Primary Education program. UNDP (2015) claimed that the literacy ratio for the Ugandan youth aged 15-24 increased from 81 to 88 percent in 2003 and 2008, respectively. In the UPE system, the literacy rate for the primary three students' in 2000 was 18 percent. In the same year, the primary six boys and girls under the Universal Primary Education program claimed a 13% literacy ratio (World Bank, 2016). By 2015, the literacy rate for primary three pupils had risen to 60 percent compared to 51.6 percent for primary six students.

Other Achievements of the UPE Program in Uganda

Poverty in Uganda

Poverty was one of the biggest challenges slowing down individuals' prosperity in Uganda. The Uganda government in its actions to reduce the widespread poverty concerns implemented the Universal Primary Education (UPE) plan in correspondence with Uganda's Poverty Eradication Action Plan (PEAP) and Uganda's Education Sector Investment Plan (ESIP). Although education is a single contributor to a nation's economic development, the introduction of UPE in Uganda has fostered the reduction of poverty from 34% in 2000 to about 20% by 2013 (MoFPED, 2014). World Bank (2016) acknowledged that the ratio of Uganda's population living in poverty had decreased from 56.4% in 1993 to 19.7 % by 2013. By 2013,

about 13 million Ugandans lived above the poverty line as middle-class individuals (MoFPED, 2014). The UPE policy has played a significant role in reducing income inequality and poverty, although millions of youths still live poorer (UBoS, 2015).

Teacher Training and Development

The actions to improve the quality of education in primary public schools entailed a joint effort by the World Bank, USAID, and the Uganda Government in support of the UPE program and the Teacher Development Program (TDP) (MoES, 1999). The TDP restructured Uganda's education system by reforming teacher training, and curriculum. Under Universal Primary Education (UPE) and the TDP, the Teacher Development Management System (TDMS) was introduced to grow quality and equity in Uganda's basic education plan. The UPE policy and the TDMS enhanced entrance to basic education and better education management. The TDMS gave prior and in-service orientation for instructors and head teachers by delivering educational services and supplying instructional materials and equipment in Uganda's primary teacher colleges. Womakuyu (2010) argued that the UPE and the TDMS programs created double registration enlargements for primary school teachers from 81,564 in 1996 to 145,587 in 2003 The robust increase in teacher enrollments reduced the classroom pupil-to-teacher ratio by half from 1:100 in 1996 to 1: 50 by 2012.

Challenges to Universal Primary Education Program in Uganda

Target (a), Uganda's Net Enrollment Ratio in UPE Schools

The Universal Primary Education (UPE) plan was intended to improve the individual's education knowledge, personal skills, attitudes, and values that impact positive change in society. The availability of academic resources such as textbooks, pens, books, chalk, charts can be helpful to teachers in enhancing and providing quality education in Uganda's primary schools.

However, these sentiments would not be fully achieved within Uganda's weak education system. For example, after the implementation of the UPE plan in 1997, the pupil-to-teacher ratio in primary public schools stood at 51:1 in 2007 (Nakabugo et al., 2008). One classroom was accommodating over 70 pupils in most UPE schools (O'Sullivan, 2006). Juuko and Kabonesa (2007) indicated that the textbook to student ratio was estimated at 1:23 in 2004. According to Elisabeth (2012), classrooms became crowded in Uganda, and schools introduced multiple daytime shifts to the detriment of students taking lessons under tree shade as shown in Figure 3.

Figure 3. The figure depicts pupils at Kamuli primary school attending class under a tree. Retrieved from: https://www.monitor.co.ug/specialreports/ugandaat50/Education-still-wanting-as-Uganda-marks-50/1370466-1400622-5bp8acz/index.html.

A clean environment leads to a sound mind (Montgomery, 2016). After the implementation of the Universal Primary Education (UPE) program in Uganda, only 8% of public schools had toilets, and clean safe water (Wodon, Nguyen, & Tsimpo, 2016). Agaba

(2014) discovered that 92% of public schools were forced to share bathrooms between boys and girls as shown in Figure 4. Female students attending UPE schools were either kept away from school or missed class during their menstruation periods because of sharing toilets with the boys (MoES, 2004). Juuko and Kabonesa (2007) claimed that about 2.7% of males and females going to UPE schools did not report back to school or fell sick owing to sanitary-related illness. The poor learning conditions prevailing in Uganda's UPE plan can be used to explain the reasons for student's absenteeism and dropout from public basic education.

Figure 4. Universal Primary Education pupils at Katyo catholic primary school, Kalungu district in Uganda share broken bathrooms. More boys and girls in Uganda's UPE plan shy away from schooling because of poor sanitary conditions (Agaba, 2014, July 2). Retrieved from: http://www.redpepper.co.ug/challenges-in-universal-primary-education.

Target (b), Proportion of UPE Pupils Completing the Primary School Cycle in Uganda

Kwesiga (2011) stated that Uganda was one of the Sub-Saharan African countries with the most student dropout rates in primary classes one and six, respectively. Kwesiga (2011)

estimated that only 516,890 pupils tested for the Primary Leaving Exam (PLE) in 2009 compared to the 1,712,420 students who originally registered for the primary one in 2002. Okumu et al. (2008) acknowledged that the UPE Net Enrollment Ratio (NER) for boys and girls was estimated at 93.01% by 2007. However, only 55% of males and 54.6% of girls reached the primary four, while 31.2% of the boys and 27.7% of girls reached primary seven.

Target (c), Literacy Rates for Universal Primary Education Students in Uganda

Ministry of Finance Planning and Economic Development (2010) discovered that literacy in Uganda had made positive trends since the inception of the Universal Primary Education (UPE) plan. However, gender disparities in literacy persist. For example, by 2015 the Uganda literacy rate was estimated at 85% males compared to 72% females. By 2006, the literacy rate of 15-24 year's individuals was estimated at 84% (MoFPED, 2014). However, this percentage had declined to about 83% by 2015 (World Bank, 2016). The approach to address the youth literacy challenge in Uganda is embedded in the proper administration and success of the UPE policy.

Other Challenges to the UPE program in Uganda

Poverty in Uganda

Abuya, Oketch, and Musyoka (2013) posited that the poverty levels in Uganda had forced girl students out of the UPE plan and opted for employment to sustain their families and personal needs. The poverty degree in Uganda has deprived individuals of food, shelter, clothing, and education, forcing families to make decisions that affect their children's futures. Primary school records are stagnant and declining owing to the high dropout rates caused by the elevated levels of poverty. MoFPED (2014) disclosed that Uganda's incidence of poverty by 1997 was estimated at 56%. This ratio indicated that most Ugandan families lived under the poverty threshold. Ascribed to the high rates of poverty in Uganda, most parents cannot support their household expenses while paying for fees associated with schooling.

HIV/ AIDS Epidemic in Uganda

The Acquired Immune Deficiency Syndrome (AIDS) is the leading source of death among Ugandan youths and children below five years (Makate, 2016). Regardless of the rigorous AIDS campaigns, and the United States annual $1.7 billion expenditure on Antiretroviral Therapy (ART) and antiretroviral (ARV) drugs, the HIV infection rates in Uganda had increased from 6.4% in 2005 to about 7.3% by 2012 (Beadle, 2012). Ahimbisibwe (2012) stated that out of the 1.5 million Ugandans living with AIDS, 190,000 were school-going age children. UNAID (2012) discovered that one out of four people living with HIV in Uganda belonged to the educational system either as a student or teacher. The AIDS disease has forced teachers to take prolonged medical sick leaves, leading to the shortage of school staff and the need to hire expensive temporary substitutes workers.

UNAIDS, UNICEF, and USAID (2004) indicated that orphans under 12 years in Uganda were more vulnerable to falling out of school and adopting street life. Ableidinger et al. (2004) and UNICEF (2003) found that more orphans fell out of the UPE system than the non-orphan children in Uganda. Najjumba and Marshall (2013) asserted that the UPE program lacked enough incentives to cater to infected and affected children in the Uganda educational system. Most students in rural parts of Uganda came from poor orphanage homes that were either illiterate about AIDS or poor to afford health-associated costs. The HIV/AIDS epidemic had not only decimated communities and families around the world but has also slowed down the progress of the UPE plan in Uganda (UNICEF, 2007).

Corruption, Ghost Schools, Ghost Teachers

Namukasa and Buye (2007) announced that the UPE system was prone to massive corruption. Namukasa & Buye (2007) also proclaimed that payrolls with ghost teachers, ghost

schools, and students were reported to the ministry of education for accountability and annual remuneration. Corruption in Uganda's UPE education system was witnessed in the fund's transfer process from the central government and then ended up in private individual accounts (Kwesiga, Mutegeki, & Kasooha, 2014). Universal Primary Education funds were diverted into other unproductive ventures by corrupted politicians and government officials. For example, in 1999, the $1.4 million meant for teacher salaries in Uganda's northern district of Guru was reported as outstanding or embezzled (Namukasa & Buye, 2007).

Kalinaki (2013) described the high enrollment numbers in UPE schools after implementation as a composition of ghost teachers, ghost pupils, and ghost classrooms. Kisamba et al. (2001) claimed that the Uganda government had failed to monitor and carry out regular school inspections, and this created ample time and lapses for corrupt officials to report inconclusive financial accountability. Kwesiga et al. (2014) reported that the Kampala Capital City Authority (KCCA) disclosed 296,840 unaccounted pupils and 32 ghost primary schools in Uganda. The Uganda government could save over 25 billion shillings by eliminating ghost schools, students, and teachers from the UPE system (Elisabeth, 2012).

Insufficient Teachers and Unqualified Teachers

In the study carried out in Iganga and Mayuge Districts about the quality of education in Uganda, Mahuro & Hungi (2016) revealed that most public primary teachers had attained the certificate in education as their least qualification to teach. The same study reported that 30% of the teachers had diplomas in education, 5% had a degree in education while 12% of the teachers were unqualified to teach at the primary school level. Accredited to the widespread corruption in Uganda's education system more teachers in the Universal Primary Education (UPE) program attained fake teacher certifications (Mahuro & Hungi, 2016). Amongst all East African countries,

Uganda was ranked last in primary school learners' achievements (UWEZO, 2012). By 2012, only four out of ten students in government schools at the primary two-level could exhibit literacy and numeracy competencies (UWEZO, 2012).

Aguti (2002) noted that although the number of teachers had increased through the Teacher Development Project, there was still the need for more teachers due to the growth in school enrollments. Kagolo and Ninsiima (2010) agreed that the UPE plan in Uganda needed 110,000 more qualified teachers to achieve a quality education. By 2012, Uganda had only 132,000 registered teachers to teach 7 million pupils in UPE schools (Kagolo & Ninsiima, 2010). Kagolo and Ninsiima (2010) also discovered that the teacher-to-student ratio in northern Uganda and the rural district of Karamoja had risen to 1:250, respectively. Aguti (2002) argued that the poor pupil-to-teacher ratio in UPE schools had compromised the quality of education in Uganda.

Research Methodology and Design

The numerical data for this study were collected between the years 2000-2015. The data was retrieved from the Uganda Ministry of Education and Sports (MoES) fact files. Due to the nature of the research, the quantitative method was a good fit because it allowed the collection of statistical data and the testing of the hypotheses to answer the research questions. Quantitative analysis was used to identify the perceived relationship between the Universal Primary Education and UPE student's completion rates, UPE teacher's employment rates, UPE student's literacy rates, and UPE student's dropout rates in Uganda.

The quantitative correlational descriptive design was suitable for the collection of numerical data to predict the relationships between the predictor and outcome variables. Quantitative research involves collecting statistical information that can be quantified and statistically be tested to either reject or fail to reject the hypothesis. The correlational design

correlated the association between Universal Primary Education (UPE) and defined Universal Primary Education demographic variables.

The descriptive research method focused on the description, organization, and summarization of the data sets. The descriptive analysis allowed the gathering of data that described Universal Primary Education in Uganda. The study used visual presentations such as scatter plots to depict and support the linear distribution and the reliability of the data collected. The descriptive statistics explored the measures of central tendency and confirmed the consistency of the selected Universal Primary Education (UPE) demographic valuables.

Linear regression analysis was used to predict the variability of the criterion variable that can be explained by the predictor variables. The stepwise regression test was performed to analyze the four research questions and their corresponding hypotheses. The stepwise approach was suitable because it predicted the variance between the predictor and outcome variables. The stepwise analysis was the appropriate method because it can determine the extent of the total influence of each variable on the outcome variables.

Population and Sample Frame

The population investigated for this study comprised of demographic variables such as Universal Primary Education (UPE) student's enrollment percentages, UPE student's enrollments by gender, UPE teacher's employment rates, UPE student's completion rates, UPE student's dropout rates, and the UPE student's literacy -rates. The target population for the study included participants in the Universal Primary Education program between 1997 – 2015.

The purpose of quantitative sampling is to choose a representative sample from the population so that the researcher can attempt to generalize the characteristics of the sample group (Salkind, 2003). Field (2013) and Keith (2015) argued that a larger sample size minimizes the

sampling errors while making estimates of the population characteristics. The Gpower 3.1. statistical apparatus was used to calculate the sample size (Faul, Erdfelder, Buchner, & Lang, 2009). The effect size calculation was initiated by selecting the F-tests under the Test family option on the Gpower tool. Under the statistical test option, the MANOVA special effects and interactions were selected. The A priori: compute required sample size given alpha, power, and the effect size was applied to the type of power analysis option. By using the effect size of F-square (V) of (1.3), the alpha level of $p < 0.05$, and the power level of (0.95), the sample size of 137 was accepted for regression and correlational analysis.

Instrumentation

Table 1

Variables Descriptions

Predictor Variable	Variable Description
UPE	Universal Primary Education – UPE student's enrollments between 2000-2015
UPE student's completion rates	Boys and girls that completed the primary school cycle i.e. P1 – P7 between 2000-2015
UPE student's dropout rates	Boys and girls that failed to complete the primary school cycle i.e. P1 – P7 between 2000-2015
UPE teacher's employment rates	Male and Female teachers employed by the UPE system between 2000-2015
UPE student's literacy rates	Boys and girls literacy in the UPE plan between 2000-2015

The instrumentation process used the quantitative method to collect the existing numerical data using the random sampling examination. Qualitative methods such as surveys, tests, questionnaires, and observations were not suitable for the quantitative study. Consequently, archived numerical data was applied to answer the research questions. The target population

included participants in the Universal Primary Education framework between 1997 – 2015. However, due to limitations on the UPE demographic variables, the sample frame included data between 2000-2015. The research variables are described as shown in Table 1.

<div align="center">**Data Validity and Reliability**</div>

Internal Validity. The study used the criterion validity approach to accurately predicts the test scores. In a criterion-oriented validity, the researcher is interested in some predictive measure (O'Dwyer & Bernauer, 2014). The criterion validity process was suitable because the predictive power of the test scores was analyzed using the regression analysis. The internal validity of this study implied that the test scores were meaningful and enabled the research to make conclusions about the sample drawn from the population.

External Validity. The external validity was useful in generalizing constructs from the study. The research used random sampling methods to allow the equal chance for all members in the population to be selected for investigation. The random sampling process is based on the implication that bias is removed by including all elements in the population. External validity is an inferential because it relates to making broad reports constructed on a sample of information.

The Cronbach's alpha (α) is a reliability coefficient that measures the degree of internal consistency between the research variables. The Cronbach's alpha coefficient varies from 0 to 1, and a value of 0. 6 or less indicates poor reliability, while .07 to .08 alpha coefficients depict acceptable reliability estimates. The Cronbach's alpha values equal to, or above 0.70 are considered optimum because they reveal that at least 70% of the observed outcomes are the exact quantum of the measured characteristic (Tabachnik & Fidell, 2013). On the contrary, Cronbach's alpha values equal to or less than 30% depict random errors revealed by the

instrument. The Statistical Package for the Social Science (SPSS) was used to calculate

Cronbach's alpha. The results of the reliability analysis are shown in Tables 2 and 3.

Table 2

Cronbach Alpha Data Summary (N = 16)

		N	%
Cases	Valid	16	100.0
	Excluded[a]	0	.0
	Total	16	100.0

a. Listwise deletion based on all variables in the procedure.

Table 3

Cronbach Alpha Reliability Statistics (N = 16)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.715	.873	5

Data Collection

The research questions were answered using archived numerical data retrieved from the

Uganda Ministry of Education and Sports (MoES) fact files. The UPE demographical data

presented by the MoES was compiled by organizations such as the Uganda Bureau of Statistics

(UBoS) and the Uganda Education Management Information System (EMIS). The target

population for the study was Universal Primary Education student demographics between the

years 1997 – 2015. However, the study used statistical inferences extracted from the populations

between 2000 and 2015. The data collection process is explained as shown in figure 5.
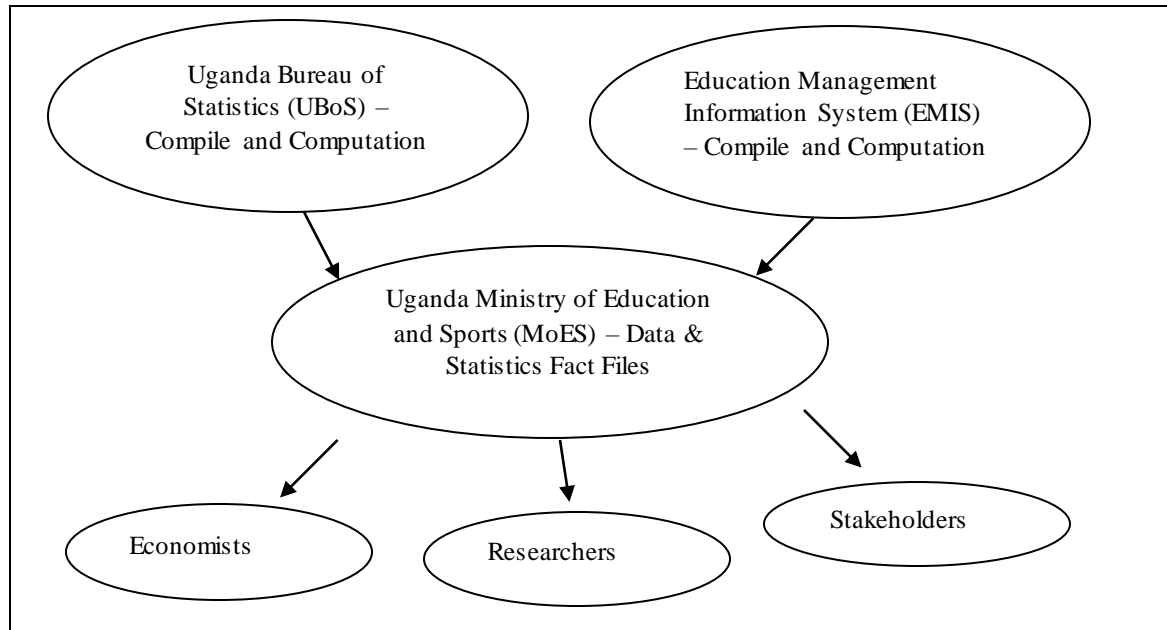
Figure 5. Overview of the data collection approach.
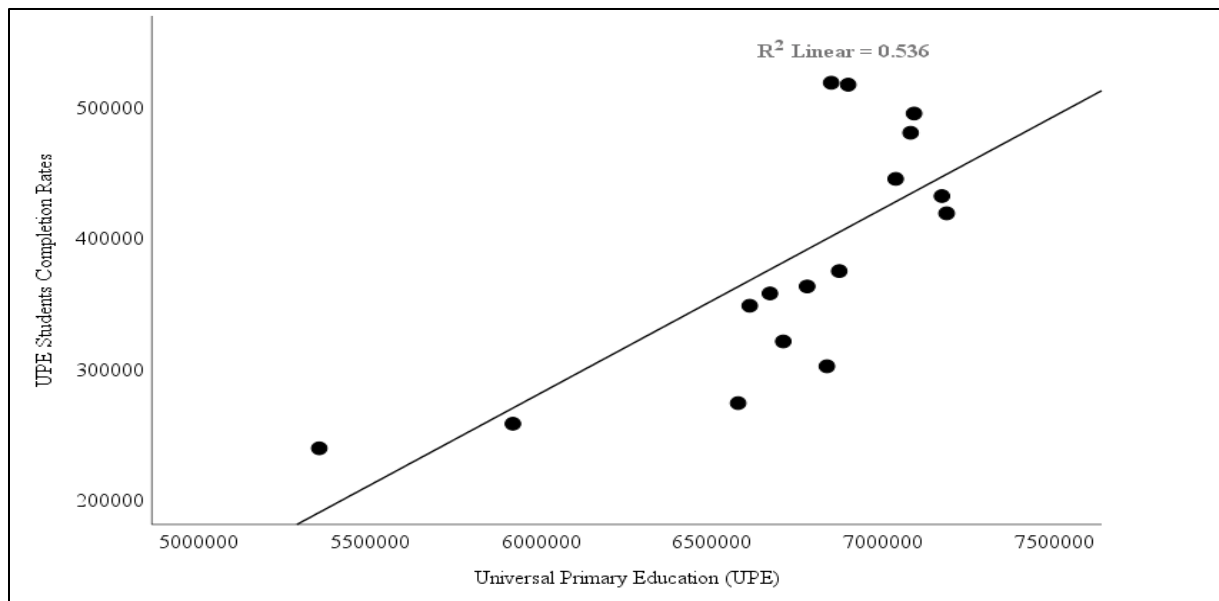
Data Analysis

Descriptive Analysis

Figure 6. Scatter plot for Research Question 1. The plot shows the relationship between

Universal Primary Education student's (UPE) and the UPE student's completion rates. Scatter

diagrams are useful for interpreting trends and associations between two quantitative variables

The descriptive statistics explored the measures of central tendency to confirm the consistency and reliability of the chosen data using visual presentations such scatter plots. Scatter plots were used to identify the linearity of the data between the predictor variable, i.e., Universal Primary Education (UPE), and the outcome variable, i.e., UPE student's completion rates. The scatter plot revealed a positive linear relationship between the two variables up to 54 percent.

Correlation Analysis

Table 4

Description of Correlation Coefficient (r) Values and the Corresponding Relationships

Correlation Coefficient Value	Relationship/Association
-0.3 to +0.3	Weak
-0.5 to -0.3 or 0.3 to 0.5	Moderate
-0.9 to -0.5 or 0.5 to 0.9	Strong
1.0 to -0.9 or 0.9 to 1.0	Very Strong

The Pearson product-moment correlation coefficient was used to quantify and predict the strength of the relationships between the study variables. Pearson correlations (r) values range between positive 1 (+1) and negative 1 (-1). The values of 1 and -1 indicate the positive and negative relationships between the predictor and outcome variables. The zero (0) value specifies that there is no association between the variables. The values closer to +1 and -1 would imply strong associations between variables. The correlation coefficient (r) evaluates the stability of the linear relationship between two values. The principles that guided the interpretation of the coefficient (r) are explained as shown in Table 4.

Table 5

Pearson Correlations between the Four Research Variables

		Universal Primary Education (UPE)	UPE student's completion rates	UPE student's dropout rates	UPE teacher's employment rates	UPE student's literacy rates
Universal Primary Education (UPE)	Pearson Correlation	1	.732**	.989**	.920**	.219
	Sig. (2-tailed)		.001	.001	.001	.415
	N	16	16	16	16	16
UPE student's completion rates	Pearson Correlation	.732**	1	.624**	.765**	.399
	Sig. (2-tailed)	.001		.010	.001	.126
	N	16	16	16	16	16
UPE student's dropout rates	Pearson Correlation	.989**	.624**	1	.892**	.162
	Sig. (2-tailed)	.001	.010		.000	.548
	N	16	16	16	16	16
UPE teacher's employment rates	Pearson Correlation	.920**	.765**	.892**	1	.090
	Sig. (2-tailed)	.001	.001	.000		.740
	N	16	16	16	16	16
UPE student's literacy rates	Pearson Correlation	.219	.399	.162	.090	1
	Sig. (2-tailed)	.415	.126	.548	.740	
	N	16	16	16	16	16

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlations revealed that the strength of the association between Universal Primary Education and UPE student's literacy rates was moderate as depicted in Table 4. The relationships between UPE teacher's employment rates, UPE student's dropout percentages, and

UPE student's completion rates were positive and strongly correlated with the outcome variable as shown in Table 5. The statistical findings of the four research questions and hypotheses, and how they associate with the criterion variable are explored as shown in Table 5.

Linear Regression Analysis

The null hypothesis was rejected if the probability value (p-value) was less or equals the alpha level $p < .05$. Alternatively, if the probability value (p-value) was more than the alpha ($p < .05$), the alternative hypothesis was rejected by failing to reject the null hypothesis. Field (2013) and Field (2009) proposed that the value $p < .000$ is highly significant because it is less than the threshold alpha value of $p < .05$. Field (2013) and Field (2009) emphasized that values of $p < .000$ should be reported at $p < .001$ level. This study reported the value $p < .000$ as $p < .001$. The mathematical analysis of the selected variables is explained in the regression equation $Yí = Ao + \beta\chi í + \beta\chi íí + \beta\chi ííí + \beta\chi íííí + U$ as shown below.

Regression Model Description

1. $Yí$ = Criterion/ Outcome Variable - Universal Primary Education

2. Ao = Intercept

3. β = Slope

4. $\chi í$ = Predictor/ Explanatory Variables - UPE student's completion rates + UPE student's dropout rates + UPE student's literacy rates + UPE teacher's employment rates.

5. U = Error terms

6. N = 16 years

Research Question (RQ) 1

Table 6

Model Predicting the Co-Efficient of Determination for RQ 1

Coefficient[b]

Model	R	R Square	Adjusted R Square
1	.732[a]	.536	.503

a. Predictors: (Constant), UPE students completion rates

b. Outcome Variable: Universal Primary Education (UPE)

Table 7

Model Predicting the Unit of Change for UPE and UPE Student's Completion Rates

Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
1 (Constant)	5267020.053	372401.131		14.143	.001
UPE student's completion rates	3.804	.945	.732	4.024	.001

a. Outcome Variable: Universal Primary Education (UPE)

Research Question (RQ) 2.

Table 8

Model Predicting the Co-Efficient of Determination for RQ 2

Coefficient[b]

Model	R	R Square	Adjusted R Square
1	.920[a]	.846	.835

a. Predictors: (Constant), UPE teachers employment rates
b. Outcome Variable: Universal Primary Education (UPE)

Table 9

Model Predicting the Unit of Change for UPE and UPE Teacher's Employment Rates

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2643621.27	468555.05		5.64	.001
UPE teacher's employment rates	33.452	3.818	.920	8.76	.001

a. Outcome Variable: Universal Primary Education (UPE)

Research Question (RQ) 3.

Table 10

Model Predicting the Co-Efficient of Determination for RQ 3

Coefficients[b]

Model	R	R Square	Adjusted R Square
1	.219[a]	.048	-.020

a. Predictors: (Constant), UPE student's literacy rates

b. Dependent Variable: Universal Primary Education (UPE)

Table 11

Model Predicting the Unit of Change for UPE and UPE Student's Literacy Rates

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6462981.73	335955.20		19.23	.00
	UPE student's literacy rates	.404	.480	.219	.841	.415

a. Dependent Variable: Universal Primary Education (UPE)

Research Question (RQ) 4

Table 12

Model Predicting the Co-Efficient of Determination for RQ 4

Coefficient[b]

Model	R	R Square	Adjusted R Square
1	.989[a]	.978	.976

a. Predictors: (Constant), UPE students dropout rates
b. Outcome Variable: Universal Primary Education (UPE)

Table 13

Model Predicting the Unit of Change for UPE and UPE Student's Dropout Rates

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-414050.49	288592.03		-1.435	.173
	UPE student's dropout rates	1.14	.046	.989	24.794	.001

a. Outcome Variable: Universal Primary Education (UPE)

Findings and Discussions

Hypothesis 1. H1o: There is no significant association between Universal Primary Education (UPE) and UPE student's completion rates in Uganda.

H1a: There is a significant association between Universal Primary Education (UPE) and UPE student's completion rates in Uganda.

Linear regression and correlational analysis were used to test hypothesis 1. The results showed that Universal Primary Education and UPE student's completion rates were statistically

significant at r = .732, t = 4.024, p = .001. The R^2 indicated that only 54% of the variability in Universal Primary Education is explained by UPE student's completion rates. The unstandardized (B) co-efficient predicted that for every 1% change in UPE student's completion rates, Universal Primary Education improved by 3.80 percent. Based on the results r = .732, t = 4.024, p < .001, the null hypothesis was rejected. The conclusion is that there is statistically significant evidence to support the association between Universal Primary Education and UPE student's completion rates.

Hypothesis 2. H2o: There is no significant relationship between Universal Primary Education (UPE) and UPE teacher's employment rates in Uganda.

H2a: There is a significant relationship between Universal Primary Education (UPE) and UPE teacher's employment rates in Uganda.

Linear regression and correlational analysis were used to test hypothesis 2. The results found that Universal Primary Education and UPE teacher's employment rates were statistically significant at r = .92, t = 8.761, p = .001. The R^2 indicated that only 85% of the variability in Universal Primary Education is explained by UPE teacher's employment rates in Uganda. The unstandardized (B) co-efficient predicted that the probability of adding a student to the UPE program improved by 33.45% for every 1% change in UPE teacher's employment rates. Based on the results r = .92, t = 8.761, p = .001, the null hypothesis was rejected. The conclusion is that there is statistically significant evidence to support the association between Universal Primary Education and UPE teacher's employment rates in Uganda.

Hypothesis 3. H3o: There is no significant relationship between Universal Primary Education (UPE) and UPE student's literacy rates in Uganda.

H3a: There is a significant relationship between Universal Primary education (UPE) and UPE student's literacy rates in Uganda.

Linear regression and correlational analysis were used to test hypothesis 3. The results indicated that the relationship between Universal Primary Education and UPE student's literacy rates was not statistically significant at r = .219, t = .841, p = .415. The R^2 value indicated that only .048% of the variability in Universal Primary Education is explained by UPE student's literacy rates. The unstandardized (B) co-efficient predicted that for every 1% change in UPE student's literacy rates, there is a .404% probability that Universal Primary Education improved. Based on the results r = .219, t = .841, p = .415, the null hypothesis was accepted. The conclusion is that there is no statistically significant evidence to support the association between Universal Primary Education and UPE student's literacy rates in Uganda.

Hypothesis 4. H4o: There is no significant relationship between Universal Primary Education (UPE) and UPE student's dropout rates in Uganda.

H4a: There is a significant relationship between Universal Primary Education (UPE) and UPE student's dropout rates in Uganda.

Linear regression and correlational analysis were used to test hypothesis 4. The results showed that the relationship between Universal Primary Education and UPE student's dropout rates were statistically significant at r = .989, t = .24.794, p = .001. The coefficient of determination R^2 revealed that .978% of the variability in Universal Primary Education is explained by UPE student's dropout rates. The unstandardized (B) co-efficient predicted that the probability that a student drops out of the UPE program increased by 1.14% for every 1% change in Universal Primary Education student enrolments. Based on the results r = .989, t = .24.794, p = .001, the null hypothesis was rejected. The conclusion is that there is statistically significant

evidence to support the association between Universal Primary Education and UPE student's dropout rates in Uganda.

The discussions are based on the strength of the P values, the Pearson's correlation coefficient, (r) and the coefficient of determinations (R^2).

Research Question 1. The findings revealed after testing hypothesis 1 are congruent with the world bank report that revealed that UPE enrollments rates in Uganda had increased to 91% by 2014, while UPE student's completion rates were 53 percent (World Bank, 2014). The Pearson's correlation (r = .732) supports the notion that free basic education increased access to primary education and narrowed the boys and girls gender gap in enrollments to about 49% and 50% respectively (MoFPED, 2014). The study discovered that UPE student's completion rates account for only 54% of the variability in the Universal Primary Education program. The variability of other factors such as school costs, early marriages, poverty, grade repetition, unqualified teachers, and the AIDS epidemic poses a challenge to Uganda's UPE system (World Bank, 2015).

Research Question 2. These findings highlighted by hypothesis 2 are related to the study by Womakuyu who argued that the Teacher Development Management System (TDMS) led to the increase in UPE teacher's employment rates. For example, the teacher's employment ratios to the UPE program increased from 81,564 in 1996 to 145,587 in 2003 (Womakuyu, 2010). The improvement in teacher's quality and quantity by the TDMS program led to the enlargement in student's enrollments (MoES, 2015). The quantitative changes in the teacher's recruitment imminently reduced the pupil-to-teacher ratio by half from 1:100 in 1996 to 1: 50 by 2012 (Busingye, 2012). The TDMS program improved student's retention and reduced primary school dropouts by providing better education management and quality education services.

Research Question 3. Improving literacy levels in Uganda is a core value to the Universal Primary Education (UPE) program. In the UPE system, the literacy rate for the primary three (p.3) student's in 2000 was 18 percent. In the same year, both boys and girls from primary six (p.6) in the UPE system had their literacy ratio at 13 percent (MoES, 2015). By 2012, only four out of ten students in government schools at the primary two grade could exhibit literacy and numeracy competencies (UWEZO, 2012). Although the literacy rates for primary six students had improved to 51.6% by 2015, the boys and girls reading and writing competencies were 40.2% and 41.4% respectively (World Bank, 2015). This information suggests that more than half of the pupils registered for primary six by 2015 could not adequately comprehend English as a language. This literature is congruent and supportive of the study findings indicating that Universal Primary Education improved by only .048% for every 1% change in UPE student's literacy rates.

Research Question 4. The results revealed by hypothesis 4 are compatible with the literature that indicated that completing the primary schooling cycle was a major challenge to the success of the UPE program. According to Kagolo (2012), Uganda had the highest student's dropout ratios at 71% in all East African public schools. Mwesigwa (2015) estimated that 68% of the student's that enrolled in the UPE program were likely to fall out of school before completing primary education. The unstandardized (B) co-efficient predicted that the probability that a student drops out of the UPE program increased by 1.14% for every 1% change in Universal Primary Education student enrolments. Congruently, in 2011, 565,663 pupils registered in their first semester to sit for the Primary Leaving Examinations (PLE) in UPE schools. However, only 543,071 students tested for the primary school exit exam. This report suggests that over 22,592 pupils did not complete primary school in 2011 (Mwesigwa, 2015). This information is quite

compelling to the degree that Universal Primary Education and UPE student's dropout rates have a strong correlation r = .989 percent.

Limitations and Recommendations

The study was limited to the quantitative correlational descriptive research design. Due to the nature of this study, there was the possibility of non-sampling errors in the data collection process. The numerical information for this study was manually collected which was time-consuming and might have created the possibility of non-sampling errors. The quantitative study was limited to Pearson's correlational and regression analysis method. Regression analysis was useful in predicting the variations between the explanatory and outcome variables. The assumptions of nonlinearity were examined and addressed using scatter plots along the regression line. The study was limited to the statistical information collected from the Uganda Ministry of Education and Sports (MoES) during the years 2000 and 2015.

There is a need for more research that explores and defines the Universal Primary Education (UPE) program and the Uganda economy. Future research might include more variables that closely define the Uganda economy. The results Identified in future studies might help narrow the gaps discovered in this study. Uganda has one of the world's youngest populations with over 56% of its youth under the age of 18 years. Uganda also has half of its population identified as illiterate individuals. The need for the UPE program to succeed is critical because the improvement in literacy and gender imbalances could enhance life expectancy, progress reading and writing, and upgrade employment opportunities in Uganda's societies.

There is need for qualitative research design study that focuses on causal and effect outcomes to investigate the impacts of UPE to the Uganda Economy. This research found Universal Primary Education and UPE student's dropout rates strongly correlated and

statistically significant at r = .989, p < .001. Although this association was significant, the application of a wider non-numerical data scope using interviews and surveys might critically predict the causal and effects for the high UPE student's dropout rates in the UPE system.

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