COMPARISON OF KYAMBOGO AND MAKERERE UNIVERSITY PHYSICAL EDUCATION TEACHER TRAINING PROGRAMMES AND PERCEIVED COMPETENCE OF THEIR PHYSICAL EDUCATION TEACHER GRADUATES

BY

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Declaration

I, **Mugera John**, declare that this thesis is my original work and that it has never been presented for any award of a degree in any university.

Signature:  ..... Date 16.08.2021 .....

Supervisors' approval

We confirm that the work presented in this dissertation was developed by the candidate under our supervision as University supervisors and is now ready for submission to Kyambogo University Graduate School with our approval.

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Dedication

This dissertation is dedicated to my parents Mr. Mayanja George William and Mrs. Nalubega Mauricia.

Acknowledgment

First and foremost, I am grateful to God Almighty, for life and vitality that enabled me to write this dissertation.

Special thanks go to my supervisors Dr. Byaruhanga Kadoodoba and Dr. Erinah Balungi for their time spent on guiding me through the research period.

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May God bless you abundantly.

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List of Abbreviations/Acronyms

AIESEP	Association Internationale des Ecoles Superieures d'Education Physique
BED	Bachelor of Education
BSED	Bachelor of Science with Education
CDC	Centre for Disease Control
MOES	Ministry of Education and Sports
NASPE	National Association for Sport and Physical Education
NCHE	National Council for Higher Education
NCDC	National Curriculum Development Centre
PA	Physical Activity
PE	Physical Education
PES	Physical Education and Sports
PETE	Physical Education Teacher Education
PETT	Physical Education Teacher Training
TED	Turkish Education Association
TISSA	Teacher Initiate in Sub-Sahara Africa
UNESCO	United Nations Education Social and Cultural Organization
URN	Uganda Radio Network
WHO	World Health Organization

Abstract

Background: The study compared the perceived competence of secondary school Physical Education (PE) teachers who graduated from public intuitions in Uganda -A case of Kyambogo and Makerere University.

Methods: the study utilized a mixed research method, analyzed Physical Education Teacher Training (PETT) curriculum documents, and also interviewed university Physical Education teacher trainers. Questionnaire was used to collect data from 52 in-service secondary school PE teachers in three competence areas; instructional planning, presentation and assessment of learning. Content analysis was used to interpret qualitative data. An independent T-test using SPSS was applied on quantitative data to test fir the similarities and differences regarding PETT and Teachers perceived competences.

Results: There was no significant differences in PETT in relation to curriculum content and teacher training process between Makerere and Kyambogo ($t(10) = 0.889$, $p = 0.395$) and the graduate secondary school PE teachers showed no significant difference instructional presentation competencies ($t(50) = 1.642$, $p \geq 0.05$). However, there was a significant difference in perceived competence in relation to instructional planning ($t(50) = 2.305$, $p \leq 0.05$) and assessment of learning ($t(50) = 2.678$, $p \leq 0.05$) among the PE teacher graduates from Kyambogo and Makerere. Secondary school PE teachers from Kyambogo perceived higher levels of instructional planning competencies compared to those from Makerere.

Recommendations: Ministry of Education and Sports should regularly have in-service training of PE teachers, both Kyambogo and Makerere university should increase on full time staff to boost PETT units and more research should be done to examine PETT in others institutions in Uganda at different levels and Assess competences of PE teachers at different education levels.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Teachers play a central role in facilitating learning by deciding on the objectives to be achieved and organizing the learning experiences in the most effective way in order to have effective Physical Education and Sports programmes in schools (Hill and Brodin, 2004; Ojuka, 1987). The goal of Physical Education Teacher Training (PETT) programmes should be to graduate highly competent students who will become effective PE teachers in schools. According to Graeme (2014), Teacher Education should be concerned with the quality, quantity and effectiveness of teachers produced.

Hardman (2009) however maintains that Teacher Education should connect to reality of school life with collaborative and innovative efforts to improve quality of school Physical Education and Sports Programmes. This requirement questions the relationship between what goes on in Teacher Training institutions during the period of training in reference to the values and practices inherent to Physical Education teacher graduates. Hand (2014) suggested that quality Physical Education Teacher training programmes are those where graduate teachers possess a deep knowledge of the subject area and a set of reflective, pedagogical and didactic skills and professional dispositions that allow them to design and deliver quality Physical Education programmes for all students.

Physical Education Teacher Education (PETE) graduates are expected to be ethical, caring, critical, innovative, reflective, collaborative and communicative professionals who promote active student engagement and quality learning in Physical Education in all kinds of schools.

All over the world, PETT in Universities have been weakened because of the development of the disciplinary movement and the expanding exercise, sport, and health-enhancement industry (Greame, 2014; Hardman et al, 2014; Wanyama, 2011; Hardman and Marshall,2005). Many Universities in Europe have tended to merge health and Physical Education in an attempt to elevate fitness and wellness as essential outcomes for students (Hardman et al, 2014). As foreseen, the result of this merging is that Physical Education programmes become more associated with wellness, first aid and Safety, and Health issues within the core courses, leaving less curriculum time to focus on how to teach traditional Physical Education (Gitonga et al 2012; Jenkinson and Benson, 2009). When knowledge base for Teacher Education grows, essential content expands, and more requirements are imposed on Physical Educators by certification agencies, accreditation agencies, and administrative units (Gitonga et al 2012). These developments have broadened the required curriculum in order to prepare student Teacher Trainees for other careers like sport management, athletic training, and exercise science and fitness in addition to teaching of Physical Education. Graeme (2014) believes that, increase of other fields within or related to Physical Education reduces departmental resources for PETT which greatly affected the quality of Physical Education Teacher Education and this has a big connection to the low quality of Physical Education and Sports programs across the world.

There are a number of challenges involved in the enhancement of quality in Higher Education and Physical Education in Africa. There is reasonable evidence that in majority of the Universities in Africa, many basic resources like institutional administrative capacity, the availability of capable faculty, living and learning space for students are insufficient to meet University teaching needs (Sanyal, 2014; Cutwright, 2010; Ward, Penny and Reed, 2006).

In Uganda, Earlier studies like those done by Olango (1988) and Namusisi (1992) pointed out that amongst the Teacher Training Institutions in Uganda, there are enormous challenges relating to physical resources, number of trainers of Physical Education teachers and organization of content for teaching effectiveness. These are big determinants of quality Physical Education and Sports in schools. There is therefore a challenge in making quality for Physical Education teaching available to learners in Uganda at all education levels and one of the reasons of the above happening is lack of adequately trained and competent teachers, at different education levels (Balungi; 2013; URN, 2012; Byaruhanga, 2009; Olango, 1988).

It was against this background that the Physical Education and Sports Department in the Ministry of Education and Sports in 2011 organized a workshop for Physical Education and Sports (PES) specialists in the country to collectively develop a realistic profile of a modern Physical Education teacher in Uganda (MOES, 2013). The Education Ministry has constantly taken training initiatives that would eventually improve the quality and quantity of Physical Education Teachers in Uganda.

1.2 Statement of the problem

The appropriate preparation of teachers in all subject areas is of paramount importance however, preparation of Physical Education teachers requires particular attention due to the fact that promotion of lifelong Physic al Activity has become an increasingly important responsibility of the Physical Education teaching profession (CDC, 2015; UNESCO, 2014).

Even though Physical Educators believe that Physical Education holds value in our society in general, and is vital to our Educational System (Sirimbi, 2015; Byaruhanga, 2009), its quality in Ugandan Schools is said to be low (Nemigisha, 2015; Balungi, 2013; Byaruhanga, 2009, Namusisi, 1992). The causes of Low-quality Physical Education in Ugandan schools are many but the one

that is over emphasized in the low competences of Physical Education teachers (Nemigisha, 2015; Balungi, 2013; Namusisi, 1992). The training of teachers in Ugandan Universities does conform to a single model (Kagoda and Itaga, 2013; Ward, Penny and Reed, 2006), accordingly, this creates an additional challenge to Physical Education[1] due to variations in competences among the teachers trained in the different institutions but these studies conducted on Teacher Education in Uganda do not comprehensively address the issues associated with diversity in University PETT programmes. It is not clearly understood whether Physical Education Teachers Trained in different universities in Uganda differ in terms of competences required in schools and whether this has a direct relationship with training programmes in universities. To fill in this knowledge gap, this study set out to investigate and compare the programmes that train Physical Education teachers in two largest traditional public universities in Uganda; Kyambogo and Makerere, and the perceptions their Graduate secondary school Physical Education teachers hold about the impact of University PETE on their practices in secondary schools in Uganda.

1.3 Purpose of the study

The purpose of the study was to compare PETT programmes in Kyambogo and Makerere university and examine the perceived competences of their graduate Secondary School Physical Education teachers to identify areas in PETT which may require modifications or improvement to enhance the quality of secondary school Physical Education teachers and Physical education and sports programmes in Ugandan schools.

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[1]Physical Education is a field of learning which aims at the development of skills, knowledge, understanding and positive social behaviour and attitudes through sport and human gross body movements, and their applications to the acquisition and maintenance of physical health and fitness for all round citizenship (MOES, 2013).

1.4 Objectives of the study

The objectives of this study were to;

1. Compare the content of PETT curriculum in Kyambogo and Makerere University.
2. Compare the processes of Physical Education Teacher Education in Kyambogo and Makerere University.
3. To compare the perceptions of Kyambogo and Makerere graduate Secondary School Physical Education teachers regarding the impact of their PETT on their practices in schools.

1.5 Research Hypotheses

To achieve the objectives above, the study followed three main null hypotheses namely:

Ho1= There were no significant differences in PETT curricula content at Kyambogo and Makerere University

Ho2= There were no significant differences in the training processes for secondary school Physical Education Teachers during the university-based training at Kyambogo and Makerere University

Ho3= There were no significant differences in perceived competences between the graduate secondary school physical education teachers of Kyambogo and Makerere

1.6 Significance of the study

The findings of the study may enable Kyambogo and Makerere University lecturers to identify and address the weak areas in the PETT curricula and PETE process in the two universities. also, the lecturers may recognise the strong areas, thereby improving on the training of secondary school

PE teachers. Secondly, information and knowledge obtained from this study will be of great benefit to administrators and policy makers in institutions and agencies like National Curriculum Development Centre (NCDC), National Council for Higher Education (NCHE). The study emphasizes the need to reform teacher education towards competence development among graduate secondary Physical Education teachers.

This study highlighted on the strength and weaknesses of the University Physical Education teacher training programmes which not only benefit Uganda but also other developing countries in Africa and around the World that needs to strengthen their Physical Education Teacher Education as a way of improving the quality of Physical Education offered in schools.

1.7 Scope of the study

The scope of this study has been divided into three presentation areas namely; geographical, content and time scope.

1.7.1 Geographical Scope

This study was conducted from within the Departments responsible for training of Physical Education teachers in Kyambogo and Makerere University; and both of these institutions are located in central Uganda. The study also involved graduate secondary school Physical Education teachers working in schools within and around Central Uganda. The choice of this scope was made because the two Universities chosen have for long time been training Physical Education teachers and now have a reasonable number of graduates many of whom are employed in schools within central Uganda and surrounding areas.

1.7.2 Content scope

This study examined the curricular content for undergraduate PETT in the two Universities; it further analyzed PETT processes with respect to students' admissions criteria, teaching and assessment, physical and human resources available for PETT. The study also tried to establish the extent to which the PETT programmes in the selected Universities satisfy their graduates in relation to their practice in secondary school. This was based on the core competences expected of a modern Physical Education teacher in Uganda establishes by the Ministry of Education and Sports through the Physical Education and Sports (PES) Department (Appendix A). These core competences in Cognitive[2], affective[3] and psychomotor[4] domains, directly translate to three relevant areas of PE instruction in schools; that is instructional planning, instructional presentation and assessment of learning (MOE, 2013).

1.7.3 Time scope

The study took eight months to complete. It commenced with proposal writing in December 2018, and concluded with completion of a dissertation in July, 2019 (Work plan, Appendix E).

1.8 Justification of the Study

Like many other relevant subjects, Physical Education is a subject studied right from primary through secondary school to university level. In Uganda, the Education Policy Review Commission Report (1989) and the Government White Paper on Education for National Integration and

[2]Cognitive domain includes knowledge on the part of the teacher about PE; ability to interpret the curriculum; being able to explain the concepts in PE; having the capacity to plan and organise PES lessons; ability to impart knowledge; creativity and being innovative; having the capacity to assess the performance of learners as well as taking interest in learners with special needs.

[3]Affective domain of a PE teacher includes interest in PE; confidence; professional appearance; care about equipment/facility; being honest, sincere and empathetic to all learners.

[4]psychomotor domain basically involves physical skills and requires the PE teacher to plan, organise and manage PE activities in addition to the ability to demonstrate the skills, communicate and also assess the learners' performance in PE.

Development (Kajubi, 1992) recommended Physical Education as an important component of the total education that should be provided to each learner in Uganda's education system. In 2009, the Minister of Education and Sports issued policy instructions granting Physical Education a core curriculum subject status in secondary schools in Uganda (MOES, 2009). The relevance of PE in Ugandan Education system is evident and teaching of Physical Education should be done by qualified PE teachers with the appropriate skills, knowledge, attitude and competence. The performance of a PE teacher should, therefore, be to a level that ensures proper teaching and learning of the subject. The performance of PE teachers greatly depends on the training they received while at the teacher training institutions. Several higher education institutions in Uganda currently produce Physical Education teachers and though target to saturate the same market, these institutions run separate curricular and follow separated designed training programmes. It is, therefore, important to determine the training process in the institutions to ensure that the graduates are competent enough to teach Physical Education.

1.9 Conceptual framework

The study was conducted using a conceptual framework modified from the model developed by Siedentop (1990). It explains the interaction among the different variable in Physical Education Teacher Education where the independent variable consists of a well-designed curriculum, adequate staffing, qualified teacher trainers, adequate physical facilities, carefully selected students and Proper assessment and evaluation system. A combination of all these in place constitute and effective PETT programme that will produce a competent physical education teacher. However, the competence of the graduate Physical Education teacher can be influenced

by other factors like the nature of the school environment in which the teachers operate; experience and mentorship the teacher gets during the in-service period among others as shown in figure 1.1.

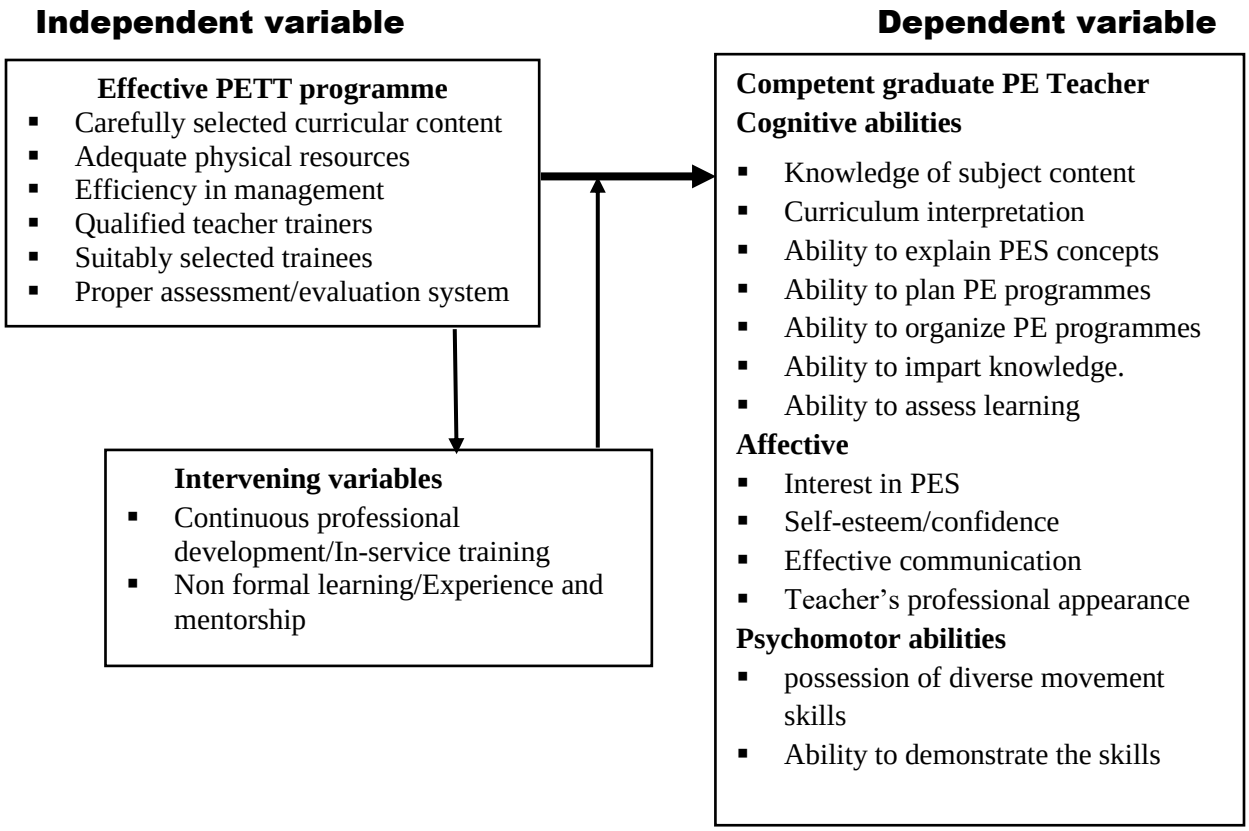

Figure 1.1 *conceptual from (modified from Siedentop, 1990)*

The competence of PE teacher may be as a result of many factors interacting together (Seidentop, 1990). In this case, the competence of a PE teacher, which includes knowledge, skills, and the right attitude towards PE, depends on the kind of training provided. The training includes aspects such as content, tutoring, the methods of teaching used, the availability of tools and materials, time allocation and assessment. If the training is of a high quality, then the competence aspects are developed.

1.10 Limitations of the study

This study was limited by inadequate and old literature on Physical Education in Uganda available in university libraries and online electronic systems. This affected the comprehensive situational analysis on the current state and trends of PE in Ugandan institutions of higher learning for the researcher to establish the fundamental gap. Secondly, the study was conducted in only two Universities selected from Central Uganda (Kampala city) due to financial limitations to meet travel and accommodation during the data collection period, hence limited funds could not enable the researcher to extend the study to a wider population. The results of this study, therefore, are from the two largest and traditional public Universities in Uganda; Kyambogo and Makerere.

1.11 Definition of Operational Terms

Physical Education (PE): Prog Physical Education is a field of learning which aims at the development of skills, knowledge, understanding and positive social behaviour and attitudes through sport and human gross body movements, and their applications to the acquisition and maintenance of physical health and fitness for all round citizenship (MOES, 2013).

Physical Education Teacher Training (PETT): An education process with programmes designed to train Physical Education teachers who possess a deep knowledge of the subject area and a set of practical, pedagogical and didactic skills and professional dispositions that allow them to design and deliver quality physical education programmes for all students. It is synonymous and can be used interchangeably with Physical Education Teacher Education (PETE) (Graeme, 2012).

Teacher competence: Embraces the abilities, skills, knowledge and attitudes expected of teachers (Hill and Brodin, 2004). Graduate Physical Education teachers should possess a deep knowledge of the subject area and a set of reflective, pedagogical and didactic skills and professional

dispositions that allow them to design and deliver quality Physical Education programmes for all students. In Uganda, the key competences required by a teacher to be effective are knowledge, skills, values, attitudes and professional ethics. This is categorized in to knowledge competence and further into content pedagogical, professional and contemporary knowledge (MOES, 2013).

Teacher's Perceived competence: here in, refers to the teacher's beliefs about his or her ability in an achievement domain. These beliefs are formed by information gathered from the environment could take the form of peer comparisons or teacher feedback and can be based on the basis of opinions and views (Fairclough, 2003).

In-service teacher: This a Physical Education teacher that has certification is already teaching in in a school.

preservice teacher: Is a Physical Education teacher trainee who is in the process of training and preparing to become a teacher.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is a review of literature related to PE teacher training and teacher competences in Physical Education. The review considers: the training of competent teachers in a general perspective, the need for competent Physical Education teachers, Physical Education Teacher Training (PETT) in Uganda and the Secondary School Physical Education.

2.2 Teacher Training and the Concept of Teacher Competence

The answers to Wilson's (2011) question that; how can we best improve teacher competences? are partially suggested in his study as providing professional development and appropriate working conditions. However, this is oriented much to in-service teachers but as Keith (2005) suggested, the route needs to be traced from the pre-service teachers. In fact, the concept of competence is used as the equivalent of standard and quality. Teacher competence is a standard used to list in details the attitudes, knowledge and skills teachers should have (TED, 2009). According to Stronge (2007), the general competence of a teacher can be discussed in six components: professional enthusiasm and motivation, job attitudes, reflective and social interactions, valuing and respect for students' personality and equality. This classification though basic, it also leaves many unresolved issues concerning teacher competence in physical Education (Okello,2009).

Okello (2009) and Harley et al (2008) suggested that for a teacher to be competent, he must have adequate content knowledge, pedagogy skills and ability to adapt to the many conflicting and competing values with in the profession. Sharman and Ajit (2016) in agreement with Harley et al (2008) also suggested that Physical Education teachers should be able to teach effectively hence

require subject knowledge, practical skills and pedagogical skills in addition to interpersonal and socio-political skills that contribute to professionalism.

The preparation of teachers who can effectively teach in schools is centered on a number of factors of which Keith (2005) pointed out academic ability of those who enter the teaching profession, pathways created within the teacher training programmes and content knowledge together with human and physical resources. Sanyal (2013) and Metzlar (2009) suggested that among the teacher training programmes, there must be a strong relationship between the courses taught and the field experiences; with content knowledge relating to reality of day to day life in schools and this is in support of Feimer's (2001) idea that if preparation of teachers is not done well, the results are bound to be disparities between promise and reality in schools and because education has become increasingly diverse, there is call for teacher education curricular to include diversity based courses and experiences that facilitate the teachers to work in diverse environments and diverse students (CDC,2015; NHRD, 2013). Liston (2012) observed that it so happens that both the theoretical and practical grounding of new teachers in their preparation may fail to equip them sufficiently for the demands of class life. This is much in agreement with the study of Sanyal (2014) and that of Hardman (2014) which revealed a big challenge of inefficiency in teacher preparation and cases of teacher incompetence common in low developed countries particularly in sub-Sahara Africa.

With respect to Physical Education, Africa is ranked lowest in terms of having qualified Physical Education teachers and this has had an enormous impact on the implementation of Physical Education programmers in schools (Sirimba, 2015; Hardman et al, 2014; Gitonga et al. 2012; Hardman, 2009).

2.3 Physical Education teacher competence and PE teacher effectiveness

Teacher's Perceived competence relates to the teacher's beliefs about his or her ability in an achievement domain; the teaching efficacy (Fairclough, 2003). How much the teacher believes in him/her self has a very big impact on the way the teacher transforms the teaching process into the intended outcomes (Hand,2014; Ololube, 2005, Keith, 2005). The ministry of Education in 2013 gave guidelines and suggested that the most important duties of physical education teacher towards learners, himself, the school, and the community, are to prepare and rehabilitate him to positively, effectively, and persistently participate. The teacher should also possess the minimum standard levels to achieve the requirements for getting the educational accreditation in order to receive what he deserves in the future of appropriate position, suiting the educationally effective roles he plays at the school. Balungi (2013) commends that these roles are as much important as those are played by teachers in other disciplines. Many studies in Africa concluded that male teachers exceeded female ones due to some society restrictions of customs and tradition imposed on female teachers, which may have a negative impact on their ability to adequately integrate and communicate in society and gain field experience similar to male teachers (Sanyal, 2014; Hardman, 2009, Okello, 2009). However, it is not clear whether these factors get up-lifted during university base PETE in Ugandan context

2.4 The need for competent Physical Education Teachers

The quality of Physical Education in schools matches considerably with the quality of the Physical Education teachers in that particular school (Sharman and Mann, 2015) and a study by Mohnsen (2005), emphasizes the importance of a highly qualified and appropriately trained Physical Education teacher in promoting quality Physical Education and sports programmes in schools. Mohnsen (2005) postulates that as the role of Physical Education in promoting lifelong physical

activity is becoming more prominent, attention of having effective teaching of the subject is being translated on the workforce; which are the Physical Education teachers. Teachers are responsible for providing students with knowledge, skills and experience within and outside the classroom. Therefore, preparing the teachers to meet the demands and requirements of the teaching profession is significant in all educational systems (Al-Tawel and Alja'afreh, 2017).

The report by Centre for Disease Control in 2015 showed that in a number of schools, Physical Education is taught by both specialist and generalist Physical Education teachers however the proportion of the two varies greatly with level and from area to area (CDC, 2015). Generalist physical education teachers are Physical Education teachers but with no special training in Physical Education (Sharman and Mann, 2015). They are usually coaches or physical activity trainers that teach movement skill to school children. In most developed countries, generalist Physical Education teachers are restricted to teacher Physical Education in lower education level that is in elementary classes helped by specialist Physical Education teachers (CDC, 2015).

In developing countries however, Africa in particular, the number of specialist Physical Education teachers is significantly small and the subject is majorly taught by generalist Physical Education teachers not only in primary but sometimes even in secondary schools (Ejigayehu, 2013; Byaruhanga, 2009; Harman and Marshall, 2000). Irrespective of whether Physical Education is taught by a specialist or a generalist physical education teacher, teaching of the subject should conform to its inherent values (Byaruhanga, 2009). Just like any other subject, all Physical Education teachers should have skills in preparation; like scheming and lesson planning and all the rest that is expected of a teacher. The teacher of Physical Education should take into account of the needs and characteristics of the learners such as ability, interest, age, gender and the other possible variable (Byaruhanga, 2009; Metzler, 2009).

Physical Education lessons are usually characterized by games and play with a number of underlying factors and conditions like class size, environment and safety all of which call for innovativeness and creativity of the teacher (Sirimba, 2015). With such demands, inadequately prepared teachers get limited in their capacity to handle the subject. This partly explains the inefficiency of Physical Education programmes in majority of African schools since teachers are not only limited by the resources but also by their capacity to teacher (Ejigayehu, 2013; Gitonga et al; 2012).

2.5 Perceived Physical Education teacher competence

According to Stojanović and Zdravković (2012) teachers' personal and social competencies include: knowing the characteristics of the local community and the social environment in which the students come from, dealing with different social situations in the work, modifying the behavior of the students and participating in the development of community-based projects implemented by the school with the participation of civil society institutions to serve students and their social environments. Fairclough (2003) and Siedentop (1990) on teacher's perceived competence, they emphasized that the teacher should feel self-capacity to impact on learners. In doing so, the teacher embraces the intended outcome of encouraging students to participate in social activities, developing students' personalities through social relations, cooperating with the local community, providing students with social skills needed to form successful relationships with others, developing students' sense of worth as a useful member of society, emphasizing on the schools' roles for positively influencing the community

Teachers' motivational competencies include: creating warm and accepting learning environments that promote students' positive attitudes toward teaching and learning, providing students with

timely and proper incentives that are expected to motivate students at a particular time, supporting and developing students' readiness to learn, and encouraging entrepreneurship among the students (Ololube, 2005).

2.6 Pre-service Vs In-service Physical Education teacher competence

A study in USA was conducted by Hand (2014) to examine physical education pre-service physical educators' perceptions of their proficiencies in teaching. In addition, the study examined the factors that influence their evaluation of their level of educational competencies. The results showed that the participants believed that they possess moderate to high level of physical education teaching competencies. In Africa, a survey by Hardman et al (2014) and Wanyama (2011), the results showed that the most common perceived factors that would affect students' teaching efficacy were: teaching experiences, opportunities to receive immediate teaching feedback, and observing competent teachers. However, the above study did not consider the perceptions of in-service physical education teachers. Such comparison studies have not been done in Uganda and also did not provide any literature regarding the implementation of alternative PETE methods and their frequency of use in teacher training institutions.

2.7 Physical Education Teacher Training (PETT) curriculum

Just like other teacher training programmes, PETT is an institutionalized education programme carefully designed to equip prospective Physical Education teachers with knowledge, skills and attitudes to teach Physical Education with a high degree of competence (Graeme 20012). AIESEP (2014) and Graeme (2012) believe that quality PETT programmes are those where graduate teachers are lifelong learners who possess a deep knowledge of the subject area and a set of reflective, pedagogical and didactic skills and professional dispositions that allow them to design

and deliver quality physical education programmes for all students. Most PETT programmes include completion of a major in Physical Education which consists of (1) knowledge and skills in sports and fitness activities, scientific foundations and philosophical constructs (2) pedagogical knowledge and skills that include methods of teaching and management, assessment and curriculum (3) field experience/ teacher practice in which the student teacher is given opportunity to practice teaching with peers or teaching internship under the supervision of a master teacher serving a mentoring role (Sharman and Mann, 2016; AIESEP, 2014; Graeme, 2012; Keith, 2005). The goal of all these requirements is that the graduates will be well prepared to teach at a particular level with competence.

Within the specific categories, the nature of content Physical Education student teachers are exposed to, Harley at al. (2008) noted that can greatly be determined by the program's mission and advocated the prescription of content from a standard based perspective in which; for their case, the standard was NASPE/NCATE standards. In other countries however, the standards may slightly vary but whatever the variations could be the underlying standards should be reflected in the content for the PETT programmes (NHRD, 2013, Graeme, 2012). It has been suggested that PETT programmes should have a focus, and that including too many approaches can dilute the quality of the programme. Specifically, the debate is on whether should the primary focus in Physical Education courses be: (1) to acquire information and skills that are related to the activity or (2) how to best teach the activity. Some teacher preparation programmes have attempted to incorporate both approaches by requiring prospective teachers to complete fundamental of skill/activity courses early in their programme with teaching and curricular strategies occurring during their final year.

Siedentop (1990) as cited by Graeme (2012), contended that failures in teaching derive primarily from a lack of pedagogical skill rather than inadequate subject matter knowledge. In contrast, Keith (2005) and Ball and McDiarmid (1990) stated that teachers who enhance their understanding of subject matter develop more elaborate strategies to teach their subject area. In addition, the results of Schempp, et al (1998) supported the position that deepening teachers' subject matter knowledge has a documented way to improve teaching since teachers who have demonstrable expertise in subject matter are more comfortable and enthusiastic in their work. Subject area specialists, according to Schempp et al. (1998) as cited by Sanyal (2013) are also better able to plan lessons that are richer in activities develop contingency plans that accommodate classroom variations, assess student learning difficulties, and devise remedies to those difficulties.

In order to produce an effective teacher, the curriculum used in the training must be appropriate in terms of content, methods of teaching, modes of assessment as well as time allocation. Content at university tends to have a high degree of specialisation and fragmentation (Michaela, 1999). However, according to Jorgensen (2008,), to take problems from the workplace and make them into teaching themes is a fruitful way of creating connections in relation to the content. In this way the teaching content is not derived from the academic curriculum, but from genuine problems that the teachers experience as urgent and which they bring with them into the educational programme. In view of this, Kyambogo and Makerere University need to adopt similar approach in order to ensure the development of a relevant curriculum. Is the content used at Kyambogo and Makerere University addressing the needs of society? Are the teachers able to deliver the curriculum relevantly once they go to the schools to teach? The content covered in the institution, therefore, matters a lot. Michaela (1999, p.46) also notes that educational theory without any direct linkage to practice is irrelevant for the professional development of teachers. This is in agreement with

Gimeno (1992) who states that a teacher must have an in-depth knowledge of his teaching subject, attain a far higher level of knowledge than that represented by the relevant school curriculum and keep abreast of the continuous flow of new contribution to his subject from the four comers of the globe. Therefore, a PE teacher should follow the curriculum and also have the hands-on training in how to teach the different skills in school. With respect to the methodology of teaching, Okello (2009) observes that the nature of the Ugandan education system is generally theoretical, and that even the courses that should be practical are taught theoretically. The reasons for this are probably limited technology; inadequate facilitation in terms of tools and materials; lack of practice among the teachers; the teachers having gone through the same system of training and, therefore, not being able to change; or the poor attitude towards the profession (Okello, 2009).

2.8 Quality Assurance in Physical Education Teacher Training

The quality of teacher education is determined by the extent of relevancy of its mission and objectives based on national goals, priorities and targets in the respective country (Sanyal, 2013). According to African Virtual University [AVU] (2012), the mission and objectives in teacher education may need to consider transformation in sense of developing capabilities hence the quality of an institution, programme or course for teacher education should be judged by the extent to which it satisfies the minimum standards set in respect to the inputs, processes and outcome. Objectives of physical education course in physical, psychomotor, cognitive, affective and social domains await measuring and assessing. Since learning objectives of the course cover various areas, teachers must have knowledge about, develop, use and assess different types of assessment and evaluation instruments (Gunal, 2014).

Teacher training quality assurance is an all-embracing term referring to a continuous process of assessing, guaranteeing, maintaining and or improving quality of a teacher training system (Sanyal, 2013). To train competent Physical Education teachers, the teacher training programmes should conform to pre-set standards and by the use of quality assurances agencies and bodies, the PETT programmes must be looked through in terms of the inputs, processes and outcomes (Liston, 2016). The quality assurance agencies and bodies employ mechanisms that include; quality audit, quality assessment and accreditation to determine quality of the teacher training programme. These mechanisms ensure that the teachers trained meet the minimum standards as set internally; that is within teacher training institution and also externally; that is out of the institution. The quality assurance agencies therefore may comprise of bodies within the institution and external bodies that monitor and regulate the quality of higher education (Martin, 2007).

The key specific indicators of quality assurance in a teacher training institution or faculty relate to; (1) existence of a clearly defined mission (2) well define policies and effective administration and (3) existence of adequate human and physical resources (Sanyal, 2013). There should always be careful selection of those who join physical education teaching profession in terms of selection for those joining the training and certification of those that complete the training and meet the minimum set standards. Within the programme, there is need to clearly indicate; (a) Course aims with intended learning outcomes and Teaching learning strategies(b) Course content with number of contact hours allocated for instruction of each topic through each learning method following faculty or department standards (c) Assessment of students and list of learning materials including lecture notes, textbooks and references given in standard format (d) Facilities required for teaching and learning of the course including physical and infrastructural facilities. This enables the body to generate a course quality report with relevant information like; Number of students starting the

course, Results of students' assessments, including percentage of those who passed or failed, Course topics actually covered and number of hours taught compared with specifications and explanation of discrepancies, Facilities and teaching materials, their adequacy, Administrative constraints and Course quality enhancement proposals with an action plan including time schedule, person(s) responsible and resource needs with possible sources of the resources (Sanyal, 2013).

2.9 Physical Education Teacher Training in Uganda

The development of modern physical education in Uganda dates back in the 19th century in which the subject become incorporated in school activities by the British missionaries (Byaruhanga, 2009; Latigo, 1999). Since then, a series of education reforms have been undertaken including reforms in teacher training. Currently, specialist physical education teachers are trained in PTCs for primary teachers, NTCs and Universities for secondary school teachers. Within the PTCs, Physical Education is compulsory in the first year of training and an elective in the second year hence all primary teachers are expected to teach this subject (MOES, 2013). However, since the PTC curriculum takes only two years and requires the teacher to graduate with a maximum of nine subjects, during specialization most student teachers drop the physical Education and a result, majority of the primary teachers have only basic training in Physical Education and may not adequately teach it (Barungi, 2013; Byaruhanga, 2009; Okello, 2009).

Specialist Physical Education teachers are graduates from National Teacher Training Colleges (NTCs) and Universities. The NTC course is a two years' diploma programme in which the teacher trains in two teaching subjects. The ministry of education (MOES, 2013) noted however that the enrollment of physical education student teachers in NTCs is significantly small and so, the output. At University level, PETT programmes for the past few years in Uganda have spread from

Makerere University and Kyambogo University to some other Universities like Gulu University, Busitema University, Busoga University among others (MOE, 2013). The university undergraduate PETT course is a three years programme in which the teacher is allowed to take a maximum of two teaching subjects (MOES, 2013). In some universities, there is postgraduate diploma training in Physical Education which is a one-year postgraduate training However, Byaruhanga (2009), noted that in both NTCs and Universities, the enrolment of Physical Education student teachers in Uganda is still low and in addition, there are challenges relating to human and physical resources and administration issues. There is also an outcry that the teaching courses in Ugandan universities have become dumping areas for students who fail to get admission into courses of their choice because of low grades. This type of recruitment has had a big impact on the quality and commitment of the graduates as many are likely to teach which seeking better paying jobs outside education (Cutright, 2010). This in addition to the fact that Graduate physical education teachers are always few in number, the resultant effect is an acute shortage of specialist Physical Education teachers in secondary schools (TISSA, 2013), hence, many secondary schools do not have even a single specialist physical education teacher. In all the se studies, the state un curricular content and process of PETE are not adequately addressed and therefore need to be studied.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This study analyzed PETT programmes and their impact on competence of physical education teachers in sleeted public universities in Central Uganda. This chapter outlines the research design, the area of study, the study population and sample size, as well as sampling procedure, the research tools, the data collection methods and analysis procedures that were used to obtain the results.

3.2 Research design

This research adopted a descriptive survey using quantitative methods of data collection and analysis. The study used a descriptive design to get a better understanding of how the PETT programmes in the two Universities contribute to the competences expected of a graduate secondary school Physical Education teacher. This descriptive approach has been considered most suitable for use because it allows as much details to be collected that would not be easily obtained by other research designs. The qualitative approach also promotes a greater understanding of not just the way things are, but also why they are. Daly [5] (2011) states that the purpose of qualitative research is to describe and understand social phenomena in terms of the meaning people brought to them. This is in agreement with Amin's explanation that qualitative research as a method provides an understanding of a social setting or activity as viewed from the perspective of the research participants (Amin, 2005).

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[5]Dr Richard Daly was a facilitator and this quote is from one of his papers that he published in 2011.

3.3 Study area

The study was conducted in Public Universities selected from Central Uganda. The researcher focused the study on Universities in central Uganda as the region has a relatively bigger number of Universities in which Physical Education is offered as a teaching subject in Teacher Education, and also due to inadequate funds, the study was limited from accessing Universities in other regions. This region also has a variety of secondary schools employing graduate Physical Education teachers from these Universities; hence a significant number of secondary school Physical Education teachers were expected to be available for participation in this study.

3.4 Target population

In this study, two population categories were considered, that is, Primary data was collected from trainers of Physical Education Teachers in the study Universities and in-service secondary school Physical Education teachers that graduated from the two study Universities (Table 3.1).

3.5 Sample size and Sampling procedure

Two Universities were purposively selected from Central Uganda for this study. The Universities considered were; Makerere and Kyambogo; which are the traditional public universities offering Physical Education Teacher Tainting in central Uganda. In each University, all Physical Education teacher trainers in these universities were intended for this study since they are trained and they are the teacher trainers, they were thought to have the information on the kind of PETT programmes and could easily enlighten on the details about PETE in their respective Universities. Snow ball sampling was used to obtain 52 in-service secondary school Physical Education teachers who graduated from the two study Universities (24 from Kyambogo and 28 from Makerere) a period not exceeding 5 years after graduation. This period stated was to get teachers trained in a

current PETE curriculum since the curricular in these universities changes every after five to 10 years; graduation figures predicted from departmental records at Kyambogo and Makerere (2019).

Table 3.1: Target population and actual population obtained

University	Teacher trainers		Secondary school pe teachers	
	Target population[6]	Actual population obtained	Target population[6]	Actual population obtained
Kyambogo	14	7	40	24
Makerere	6	2	40	28
Total	**20**	**9**	**80**	**52**

3.6 Data collection methods and tools

Primary data was collected direct from the population of this study. Secondary data was obtained through analyzing documents such as the PETT course outlines and curriculum, preliminary reports on evaluation, teaching and examination time tables and other administrative documents. The collection of this data was done using the following methods and tools;

3.6.1 interview guide

The researcher interviewed the teacher trainers at the two universities using an interview guide (Appendix C) to obtain data relevant for this study. Physical Education teacher trainers were interviewed to obtained data about the process for PETE in their respective universities. These face-to-face interviews helped in providing an in-depth understanding of the situation regarding PETT.

[6] Target populations were based on rough estimates from time tables and admission lists got prior to the study; most documents cannot be authenticated.

In addition, the interview allowed flexibility and adjustment in questions asked to suit situation for both the interviewer and interviewee to be clearly understood. The interview guide was content

validated by my supervisors to determine whether it addressed the concerns of this research the concerns of this research project with respect to objective two. Validity was established by computing the content validity index (CVI) structure which was 0.86 to 0.95.

3.6.2 Questionnaire

Primary data from graduate secondary PE teachers was collected using a questionnaire (Appendix D). All the items in the questionnaire sought to establish the perceived competence gained by secondary PE teachers during their period of training. This adapted tool captured the core competences expected of a modern physical education teacher in Uganda.

3.6.2.1 Validity

The questionnaire was based on the conceptual framework for the study. The questionnaire was content validated by my supervisors to determine whether it addressed the concerns of this research project so expert's judgment relied upon to determine whether the questionnaire adequately reflected the concerns of the research. Validity was established by computing the content validity index (CVI) structure which was above 0.7.

3.6.2.2 Reliability

The split half method was used to ascertain reliability of the questionnaire after the pilot test. The items were scored by giving a mark for a relevant response and zero for an irrelevant or blank response. The questionnaires were divided into two equal halves taking the odd numbered items against the even numbered items. The scores of the halves were corrected using the split half measure of reliability. A split-half correlation coefficient was then calculated; r =0.842.

3.6.4 Document analysis

In this method, documents and literature concerning PETT in the selected Universities were reviewed using a universal PE curriculum analysis rubric (NASPE, 2017) [Appendix B]. The researcher analyzed the PETT curriculum documents, time tables and other organization and administrative documents at the department to obtain data concerning the curriculum content and its distribution, staffing pattern, physical facilities, and profile of teacher trainers, students' admission criteria and assessment/evaluation system.

3.7 Data collection procedures

The researcher obtained an introductory letter from the Graduate School of Kyambogo University. This letter officially introduced me to the department responsible for PETT in each of the selected universities and also in the schools in which the participant secondary school physical education teachers were teaching. All the subjects in the sample were approached at their respective Universities and schools. The researcher dealt with all the selected subjects at one university before proceeding to the next University as a way of minimizing transport costs. In each University, the researcher approached the head of department and coordinator (Lecturer coordinating physical education teacher training programmes) prior to the data collection exercise and explained to them about the research project and requested them to participate in the study. This was done verbally and through a letter that was written specifically to serve this purpose. With authority from head of department and accepted Lecturers, the researcher proceeded with data collection exercise by interviewing the sampled teacher trainers and reviewing of the documents relevant for the study. The secondary physical education teachers were approached at their respective schools after prier arrangements made when met one-on-one or by a phone call. The initial meeting involved explaining to the teacher about the researcher and a questioner was left to him/her to fill in the

appropriate time and after a week, the questioner would be collected or sent back to the researcher in a sealed envelope.

3.8 Data analysis

The data collected using the interviews and questionnaire was subjected to statistical analysis using SPSS (version 20 IBM SPSS Statistics). The analysis would identify the points of similarities and differences in PETT programmes at the two universities and perceived competences exhibited by the secondary school physical education teachers who graduated from these universities. The process involved; organizing, describing, interpreting, cross-tabulating, simultaneous comparison, hypothesis testing and drawing conclusions for the collected data. Content analysis[7] was used to analyses qualitative data. By using content analysis, the researcher was able to quantify and analyze the presence, meanings and relationships of certain words or statements, themes, and concepts presented in documents and interviews. The analysis process started with generation of descriptive data through computing descriptive statistics of frequencies, percentages, means and standard deviation. Such data was used to describe the status of the PETT programmes in the two Universities. This was followed by inferential statistical testing of significance to establish whether the similarities and or differences found in PETT programmes and teacher competences are significant. The Independent T-Test of differences between means of the two popul\tions was used. In the last aspect, content analysis of interview responses and documentary evidence obtained in the field was considered so as to provide qualitative support to quantitative data.

[7]Content analysis is an interpretive and naturalistic approach. It is both observational and narrative in nature and relies less on the experimental elements normally associated with scientific research (reliability, validity). Sources of data could be from interviews, open-ended questions, field research notes, conversations, or literally any occurrence of communicative language (such as books, essays, discussions, newspaper headlines, speeches, media, historical documents (owen, 2014)

3.9 Ethical issues

Seven basic ethical issues arose in during this research but the following were critical and required agent attention: informed consent was obtained verbally from the respondents before making them part of this study. The content of this research project was fully explained to them by the researcher and they accepted to have understood every section and the implications. Privacy (including confidentiality and anonymity) was ensured by not disclosing the identity of the respondents. The sources information used by the researcher from others studies are clearly indicated.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter comprises the presentation and discussion of the findings of this study that aimed comparing Physical Education Teacher Training Programmes at Kyambogo and Makerere University and perceived competence of their graduate secondary PE teachers so as to understand the similarities and difference with respect to training of Physical Education teachers in these two traditional public universities.

The findings of the study are presented and discussed in four sections namely;

- Section 4.2 presents a description of the demographic characteristics of the respondents
- Section 4.3 presents and discusses findings of the comparison of PETT curriculum content of Makerere and Kyambogo University.
- Section 4.4 compares the PETT processes in Makerere and Kyambogo University.
- Section 4.5 compares the perceptions of Kyambogo and Makerere graduate Secondary School Physical Education teachers regarding the impact of their PETT on their practices in schools.

4.2 Demographic characteristics of respondents

The study sample consisted of nine (9) Physical Education teacher trainers; two (2) from Makerere university and seven (7) from Kyambogo university. The study also targeted 80 secondary school physical Education teachers who graduated from the study universities, however, only 52 (86%) teachers were available during data collection. The results of the general categories of respondents are summarized in Table 4.1.

Table 4. 1: General categories of respondents

University	PE Teacher Trainers		Secondary school PE teachers	
	No.	*Percentage*	*No.*	*Percentage*
Makerere	2	22	28	54
Kyambogo	7	78	24	46
Total	**9**	**100.0**	**52**	**100.0**

Results in table 4.1 show that majority of the participant Secondary School Physical Education teachers were graduates from Makerere University (54%; n=28) and the other participants were from Kyambogo University (46%; n=24). The actual numbers targeted by the researcher were not achieved as some teachers were not willing to participate and others confessed that they had left the profession and felt unconfutable to judge the teaching demands at hand. The numbers of secondary school PE teachers from Makerere that participated in this study was higher (28) compared to those from Kyambogo (24) partly due to the relatively higher number of PE graduate from Makerere in the five recent years as stated by one of the PE teacher trainers at Makerere University. He stated that 'we trainee and graduate many PE teacher from Makerere in the most recent years than any of the other universities here in Central Uganda; our enrollment increased as well' (PE Lecturer at Makerere university, 2018). Among the Secondary School Physical Education teachers, most of the participants were male teachers (n=41) compared to females (n=11). The categories of participant secondary school Physical Education teachers are summarized in table 4.2.

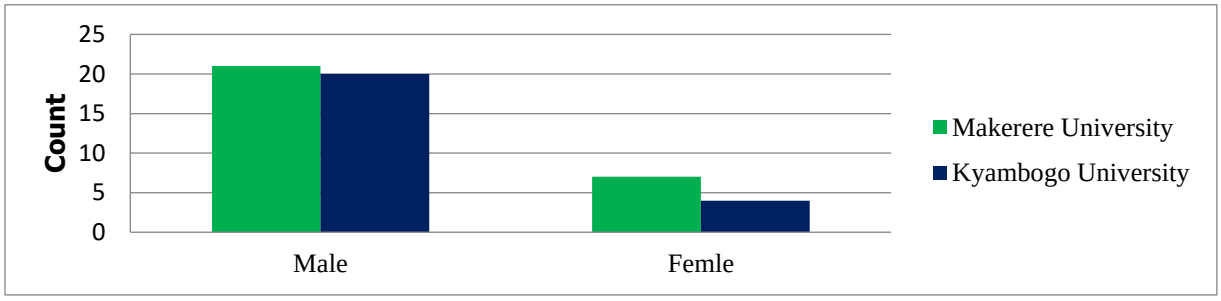
Table 4. 2: Secondary School PE Teacher Categories

University	Sex		Age (years)		
	Male	*Female*	*20-29*	*30-39*	*40 and above*
Makerere	21 (51%)	7 (64%)	15 (75%)	11 (52%)	2 (18%)
Kyambogo	20 (49%)	4 (36%)	5 (25%)	10 (48%)	9 (82%)
Total	**41**	**11**	**20**	**21**	**11**

	(100%)	**(100%)**	**(100%)**	**(100%)**	**(100%)**

The participating male secondary school Physical Education teachers who graduated from Makerere University represented a little more than half of the total male participants (51.2%; n=21) and only 49% (n=20) of the male participants had graduated from Kyambogo University. From the total population of participants, 11 were female teachers of whom 64% (n=7) were graduates from Makerere University and 36% (n=4) graduated from Kyambogo University. The gender categories of respondents are summarized in Table 4.2 and presented in Figure 4.1.

Figure 4. 1: Descriptive Summary of gender of graduate PE teacher Participants



More male PE teachers in schools is due to high enrolment of male PE teachers in institutions which outweigh that of females (Makerere and Kyambogo admission lists, 2010-2016). However, this cannot be taken as a current issue as Brown (1999) described that Gender is a social construction that has had a powerful impact on the way physical education in schools has evolved throughout history, and continues to shape the way PE is offered in schools today. Like Brown and Evans (2004), Lastra (2017) believes that Constructions of masculinity dictate, in large measure, the types of activities that are considered desirable in PE programmes and the types of students who will be successful in these activities and he observed that PE is more attractive to male teachers who see instructional PE as a career with an example of transformation into coaches yet female coaches who have succeeded in the male world of sport are less (Koca, 2009). This continues to show that more men than women are interested in becoming physical education

teachers and Koca (2009) observed a hike at a ratio of 1.60 in some of the European PETT institutions. In training, female students perceive more discrimination than male students during Physical activities; a state in Uganda and Kenyan schools (Wanyama, 2011; Byaruhanga, 2009)

4.3 Comparison of PETT Curriculum content

The first specific objective was to compare PETT curriculum content at Kyambogo and Makerere University, as used in training of secondary school Physical Education teachers. The following section presents the findings about curriculum content used in training of undergraduate Physical Education Teachers in the two universities.

4.3.1 General aims of PETT Programmes

Documentary analysis of the aims of PETT at both Kyambogo and Makerere University was carried out. In the analysis, it was evident that the aims of PETT in both Kyambogo and Makerere University were almost the same. The aims of PETT in the two universities are outlined in table 4.3.

Table 4. 3: PETT Aims; Source: Makerere and Kyambogo PE curriculum documents

Makerere University	Kyambogo University
Produce graduates to teach PE and sports in secondary schools	Produce graduates to teach PE and sports in secondary schools
Increase on trained man power available for teaching PE	Increase on trained man power available for teaching PE
Produce graduates who will be able to promote, sustain and enhance development of PE.	Produce graduates who will be able to promote, sustain and enhance development of PE.
Equip PE teacher trainers with knowledge and skills necessary for teaching PE in schools	Equip PE teacher trainers with knowledge and skills necessary for teaching PE in schools
Raise standards in PE by producing quality PE teachers in the country	

The PETT Programmes in Kyambogo and Makerere aim at producing graduates to teach Physical Education and sports in secondary schools, increasing on trained man power available for teaching Physical Education, producing graduates who will be able to promote, sustain and enhance development of Physical Education and to equip Physical Education teacher trainers with knowledge and skills necessary for teaching Physical Education in schools. The situation in schools dictates the needs and concerns of PETE in all teacher training institutions so here the aims are in line with the concerns of Loughran (2006), who recommend looking at how fit for purpose is PETE in supporting the myriad of challenging school and societal contexts and to address the declining enrolments of undergraduates entering PETE programs at a time of increasing global interest in school wide physical activity and health initiatives. As shown in Table 4.3, PETT in the two universities have closely the same broad aims and this could partly be associated to the course accreditation requirements as all these institutions are regulated by NCHE under the MOES (MOES, 2013)

4.3.2Fitness and practical skills

This study analyzed the content used in PETT in relation to physical fitness and practical skills in teaching of Physical Education teacher trainees who enroll at the two universities, Kyambogo and Makerere with no teaching background, for a three years BSED course. It was observed that the content areas are closely the same but their breakdown, teaching durations and distribution are finely different. The general distribution in the three-year course is presented in Table 4.4;

Ball games are taught in all the three years of the BSED course at both universities only changing the game/sport type for a specific semester. Track and field are taught practically in year three at Makerere University given only 45 contact hours, whereas, at Kyambogo University, it is taught in year one and two giving the sport a total of 135 contact hours.

Table 4. 4: Distribution of contact hours of practical units for BSED

Practical units	Makerere university			Kyambogo university		
	Year I	*Year II*	*Year III*	*Year I*	*Year II*	*Year III*
Athletics	-	-	45	75	45	-
Aerobics	45	-	-	-	-	30
Basketball	-	-	45	-	45	-
Soccer	-	45	-	-	45	-
Netball	-	45	-	-	45	-
Volleyball	-	45	-	30	-	-
Handball	-	45	-	-	45	-
Rugby/Hockey	-	-	-	-	-	30
Cricket	-	-	-	-	-	30
Racket sports	-	-	30	-	-	45
Swimming	-	-	45	45	-	-
Gymnastics	45	-	-	30	-	-
TOTAL	**90**	**180**	**165**	**180**	**225**	**135**

Source: Curriculum documents and Teaching time tables for academic year 2018/19

At Makerere, aerobics is given 45contacts hours with incorporation of much of gymnastic components but Kyambogo gives it 30 contact hours; a similar time allocation applies to volleyball but the reverse is true for racket games. Swimming, netball, basketball and soccer are each allocated 45contact hours but taught in different years of the course in the two universities. Cricket, hockey and Rugby are elective units each 30 contact hours taught to Physical Education teacher trainees at Kyambogo University but not in Makerere University.

The study also analyzed and compared Practical time load for each Physical Education teacher trainee per semester in terms of contact hours allocated for the practical units in the two universities. Results of this comparison are shown in Table 4.5.

The results obtained showed that the total Physical Education time load for a BSED teacher trainee at Makerere University is higher (855hours) than at Kyambogo (805hours). Both of the study universities allocate more of the Physical Education teaching time to practical units than the other theoretical units but Kyambogo University allocates more time for teaching of practical units (65%) compared to Makerere University (51%). Kyambogo University teachers more practical

Physical Education units in the first two years of the BSED course while Makerere University teachers more Physical Education practical units in the last year of the BSED course. Means and standard deviations for contact hours in each university were calculated.

Table 4. 5: Contact hours allocated to teaching of PE practical units for BSED compared with total PE time load

Semester	Makerere University			Kyambogo University		
	Practical	*Others*	***Total***	*Practical*	*Others*	***Total***
1	45 (43%)	60 (57%)	**105 (100%)**	75 (56%)	60 (45%)	**135 (100%)**
2	45 (33%)	90 (67%)	**135 (100%)**	105 (78%)	30 (22%)	**135 (100%)**
3	90 (55%)	75 (46%)	**165 (100%)**	135 (100%)	0 (0%)	**135 (100%)**
4	90 (55%)	60 (46%)	**120 (100.0%)**	90 (60%)	60 (40%)	**150 (100%)**
5	90 (60%)	60 (40%)	**150 (100%)**	60 (45%)	75 (56%)	**135 (100%)**
6	75 (50%)	75 (50%)	**105 (100%)**	75 (56%)	60 (45%)	**135 (100%)**
Total	435 (50%)	420 (49%)	**855 (100%)**	518 (65%)	285 (36%)	**803 (100%)**
Log 10 (x + 1) transformed data	Mean =1.87 SD = 0.142			Mean = 1.94 SD = 0.125		
Value of t=0.879 Df =10 P=0.395 (Not Significant)						

Source: Makerere and Kyambogo PE curriculum documents (2017)

The results were; 1.87±0.142 (mean ± SD) for Makerere University and 1.94±0.124 for Kyambogo University. An independent t-test was used to compare differences between mean contact hour values for different universities on Log 10 (x + 1)-transformed data. Levene's test for equality of variances was used to identify a significant difference between variances of the two Universities ($p \geq 0.05$). There was no significant difference in the mean contact hours allocated for practical Physical Education units between the two Universities $p \geq 0.05$ ($t(10) = 0.889$, $p = 0.395$).

The results revealed that both universities have designed a Physical Education Teacher Training programme that allocates more time to teaching of practical units as compared to theoretical units. This is based on the belief that PE teacher candidates should be physically literate themselves, with competencies in a wide variety of movement activities that form the basis of the secondary school curriculum (MOE, 2013). Researchers have noted the importance of PE teacher trainee acquisition of common content knowledge on movement skills for success in PE teaching (Kim, Lee, Ward & Li, 2015; Siedentop, 2002; Tinning, 2002). These researchers have argued that practical content is critical to candidates' deeper understanding of movement techniques and their cultural context. In this sense, most researchers like NASPE, 2009; Siedentop, 2002 suggested that physical education can be considered a performance-based discipline, similar to dance, art, and music. However, results of this study oppose those of some earlier studies like that of Zeigler*et al*, 2011 which criticized physical education teacher education programmes for the limited time they devote to enhancing candidates' movement skills in comparison to professional content knowledge. This was further supported by another research done by Liston, Whitcombe, & Borko (2006), who found out a number of new PE teachers who claimed that the theoretical grounding learned in teacher preparation did not equip them sufficiently for the demands of daily classroom life. The explanation for the difficulties was that the curriculum in university-based teacher preparation programs does not prepare them for the specific tasks they must accomplish. This criticism goes beyond the typical concerns with classroom management; the basic argument is that teacher preparation programs devote too much attention to theory and not enough to the practical skills of what and how to teach.

4.3.3 Scientific and pedagogical knowledge

The PE curriculum content of the two universities was analyzed and compared in relation to the key theoretical areas that ground the teacher in teaching potentials of the Physical Education subject. The general scope of the scientific units is shown in table 4.6.

Table 4. 6*: General scope of Scientific Knowledge for both BSED and BED*

Course Unit	Kyambogo University				Makerere University	
	BED		*BSED*		*BSED*	
	CH[7]	CU[8]	CH	CU	CH	CU
General Sports Biology	-	-	30	2	-	-
Growth, development and Motor learning	30	2	30	2	30	2
Exercise physiology	30	2	45	3	45	3
Safety and sports injuries	30	2	30	2	30	2
Basic health Education	-	-	-	-	30	2

PETT curricula at both Universities (Makerere and Kyambogo) consist of specific units that relate to physiological and biomechanical concepts, human growth and development, motor learning and related theories and physical fitness. The Physical Education teacher trainees at Kyambogo cover General Sports Biology as an independent unit unlike those of Makerere University however those of Makerere University have an independent unit on Basic health which is not a case in Kyambogo University PETE. The scientific course units in the two universities, each is of 2 credit units and theoretical, allocated 30 contact hours with the exception of exercise physiology which has 3 credit units and allocated 45 contact hours. The percentage time allocated for each theoretical unit in relation to the total Physical Education time load for a BSED teacher trainee was calculated and compared in the two universities. The results are presented in table 4.7.

[7]Contact hour (CH) is a measure that represents an hour of scheduled instruction given to students
[8]Credit unit (CU) is a general measure of academic work in a give course or subject of study

Table 4. 7: Percentage Contact Hours for Specified theoretical units of a BSED-PE teacher trainee in relation to total PE load (855hours for Makerere and 803hours for Kyambogo)

Specific course units	$BSED_{Makerere}$		$BSED_{Kyambogo}$	
	CH	% on total PE load	CH	% on total PE load
Foundations and History of PE	30	3.5	30	3.7
General Sports Biology	0	0.0	30	3.7
Growth, development and Motor learning	30	3.0	30	3.7
Exercise physiology	45	6.2	45	5.6
Safety and sports injuries	30	3.5	30	3.7
Basic health Education	30	3.5	0	0.0
Introduction to sports performance	30	3.5	0	0.0
Management and administration in PE and Sports	30	3.5	0	0.0
Gender and socio-cultural dynamics in PE	30	3.5	0	0.0
Training theories and design of PE programmes	30	3.5	30	3.7
PE teaching methods	30	3.5	30	3.7
Instruction of PE classes with special needs	30	3.5	0	0.0
Assessment and evaluation of students in PE	30	3.5	30	3.7
Research methods	45	5.3	30	3.7
TOTAL	**420**	**49.1**	**285**	**35.3**
Log 10 (x + 1) transformed data	Mean =1.504 SD = 0.066		Mean = 1.497 SD = 0.058	
Value of t = 0.274 Df =20 P = 0.787 (Not Significant)				

The results presented in table 4.7 show that with the exception of exercise physiology and research methods, the rest of the Physical Education theory course units are each allocated a teaching time of 30hours per semester which constitutes 3.5% of the total time allocated to Physical Education for a BSED teacher trainee in Makerere university and 3.7% at Kyambogo. This percentage variation is due to the fact that the total Physical Education time load for a BSED teacher trainee is higher at Makerere than at Kyambogo University. Kyambogo University has General Sports Biology as an independent course unit in PETT but not a case at Makerere University. Basic Health Education, socio-cultural dimensions of Physical Education, Administration and Management in Physical Education and Sports, Physical Education for special needs students and introduction to sports performance are taught as independent course units in PETT at Makerere University but at Kyambogo University, the content in these areas are presented indirectly indifferent course units.

Research methods as a course unit is allocated 45 contact hours in Makerere University PETT curriculum but in Kyambogo, it is allocated 30 contact hours.

To test the significance of the differences observed in time allocation for Physical Education theory course units in the PET curriculum of the two Universities, Means and Standard deviations for contact hours in each university were calculated. The results were; 1.504±0.066 (mean ± SD) for Makerere University and 1.497±0.058 for Kyambogo University. An independent t-test was used to compare differences between mean contact hour values for different universities on Log 10 (x + 1)-transformed data. Levene's test for equality of variances was used to identify a significant difference between variances of the two Universities ($p \geq 0.05$). There was no significant difference in the mean contact hours allocated for practical Physical Education units between the two Universities $p \geq 0.05$ ($t(20) = 0.274$, $p = 0.787$). However, a distinction between the practical and theory, it is the theoretical and or scientific knowledge that grounds a teacher in all subject areas (Balungi, 2013; Loughran, 2006; Brown, 1999). It would be easy to conclude, based on Hattie's (2014) work, that subject matter knowledge is unimportant, and that teachers can teach with abandon outside their subject area. This kind of argument is not completely unfamiliar to elementary or primary school teachers, who are often required to be generalists - and often acknowledge that they don't have the same level of subject knowledge as secondary school teachers. Subject knowledge, not only in Physical Education but in all subjects, has a very important role to play because high-quality teaching rests on teachers understanding of the subjects they are teaching, knowing the structure and sequencing of concepts, developing factual knowledge essential to each subject and guiding their learners into the different ways of learning (Loughran, 2006)

4.4 Comparison of PETE process for undergraduate PE teacher trainees

The second specific objective was to compare PETT processes at Kyambogo and Makerere University. This section looked into the general admission criteria for Physical Education teacher trainees and the available human resource in addition to infrastructure necessary for training of Physical Education teachers and Physical Education teacher quality assurance in the two study universities.

4.4.1 General admission and training duration of Undergraduate PE teachers

The study examined relevant departmental documents in line with the PETT curriculum to find out the criteria used to admit students to train as secondary school PE teachers in the two study universities and the training period for the respective courses or programmes. The findings are summarized in table 4.8.

Table 4. 8: Admission of PE teacher trainees

Under graduate PE teacher trainee	Makerere university	Kyambogo university	
	BSED	BSED	BED
Academic background on admission	Science education	Science education	Science teacher education
Teaching subject combinations	PE/Biology	PE/Biology/math /Economics/Geography	PE/Biology/math
Training duration (Years)	3	3	2

Kyambogo University admits undergraduate students to train as secondary school Physical Education teachers under two programmes; that is, Bachelor of Science with Education (BSED) which is a three year programme used to train pre-service secondary school Physical Education teachers and Bachelor of Education (BED) a two years programme used to train in-service teachers however, for undergraduate PETT at Makerere University, only a BSED is offered, and the training is also for three years to graduation like that of Kyambogo. To be admitted for a BSED and train as a Physical Education teacher at the two universities, the student must have sat and passed 'A'

level with a science subject combination or its equivalent. The students enrolling for a BED course with Physical Education as one of the teaching subjects, the student is required to have trained and qualified as a diploma (Grade V) teacher in a science-based course. Physical Education teacher trainees at Makerere University are allowed only one teaching subject combination; that is Physical Education and Biology but those of Kyambogo can combine Physical Education with any of Biology, Geography, Physics, Mathematics or Economics. This admission protocol observed at Kyambogo and Makerere university are dictated by the requirements of NCHE. The designing of PETE programmes in Uganda fits in a framework of standards for PE teachers' needs set by Ministry of Education and Sports (MOES, 2103) where the NCHE revises courses for higher institutions of learning to be established a base of at least minimal requirements for admission.

4.4.2 Resources for PE teacher training

In key relevant documents like course outlines and timetables, study analyzed the human resource available for training of Physical Education teacher trainees in the two universities; Kyambogo and Makerere. The actual numbers of instructors of Physical Education course units, including part-time and full staff, of different categories were noted as presented in table 4.9.

Table 4. 9: Categories of PE teacher trainers

Category	Kyambogo university	Makerere university
Teaching assistants	4 (17%)	2 (33%)
Assistant lecturers	13 (56%)	4 (67%)
Lecturers	5 (22%)	0 (0%)
Associate professors	1 (1%)	0 (0%)
Professors	1 (1%)	0 (0%)
Total	**23(100%)**	**6 (100%)**

Makerere University has only 6 instructors of PE units, 2 (33%) teaching assistants and 4 (67%) assistant lecturers. The number Physical Education instructors at Kyambogo University are bigger, adding up to 23. Assistant lecturers are 13 (56%) and 4 (17%) teaching assistants but majority in

these two categories are on part-time basis and so are not fully stationed at the University. Makerere University has fewer instructors of PE units as compared to Kyambogo University. However, the majority of instructors in Kyambogo University are on part-time basis so not fully stationed at the University as noted by one of the teacher trainers this university. This affects the PETE process in many ways so allocation of adequate resources to recruit and retain highly skilled physical Education instructors should be emphasized to permit longer physical Education class sessions and maximize trainees' physical activity during physical education (Pate et al, 2006). Reduced time spent on class management is one mechanism through which the teacher-trainee to physical Education instructor ratio influences trainees' activity levels. Instructors in institutions with few trainees per instructor, spend less class time on activities during which students are not engaged in PE content, thereby increasing physical activity opportunities for the trainees or students (Balungi, 2013).

4.4.3 PETT infrastructure and Physical Facilities

Through interviews of PE teacher trainers and document reviews, study also compared availability and adequacy of major infrastructure required for training of PE teacher in the two universities and the results are shown in tables 4.10. The two universities have tried to some extent to reach and maintain the requirements for National Council for Higher Education (NCHE) with respect to the infrastructure requirements for Physical Education Teacher Education. Each of the universities has one incompletely structured and stocked gymnastic room and a separate aerobic gym with most of the equipment required for aerobics, weight and strength training but Kyambogo University has a bigger stock of such equipment. Makerere University has one track and field ground with all the basic components for jumps and runs however; Kyambogo has two of such track and field grounds. The soccer field at Makerere University is one but with an inadequately mentioned field ground

unlike the three soccer fields at Kyambogo, two with proper grass profile. Each of these two universities has two standard outdoor basketball courts 4 netball courts with two of those at Makerere placed indoor. There is an old but functional medium size swimming pool at Makerere University but no in-campus swimming pool at Kyambogo University; instead, off-campus swimming pools are used.

Table 4. 10: Major Physical Education and Sports Infrastructure

Minimum Expected[9]	Makerere university		Kyambogo university	
	No. present	*Status*	*No.present*	*Status*
1 gymnastic room	1	Incomplete	1	Incomplete
1Aerobic gym	1	Incomplete	1	Nearly complete
1athletics field	1	comprehensive	2	Comprehensive
2soccer fields	1	Proper	3	Proper
2basketball courts	2	Outdoor	2	Outdoor
2netball courts	4	two indoor	4	Out door
2swimming pools	1	Medium size	0	Off campus
2Rugby grounds	1	Proper	2	Proper
4tennis courts	4	Old	4	Proper
2volleyball courts	2	Proper	4	Proper
1Cricket oval	1	Proper	1	Proper
4First aid kits	1	Incomplete	2	Incomplete

Many of the trainers at the two universities stated that the tools and materials were available and adequate for them to train PE teachers but also stated that in cases where original materials were not available, replacements were improvised that helped them during the teaching and learning process. Examples of such improvised replicas included hurdles, hammers and discuses. In the case of swimming, a trainer at Kyambogo University stated that they had to use facilities at recreation centres outside the university to carry out practical swimming lessons.

[9]Minimume expected as the figures on average teacher trainers quoted in respect to what NCHE recommends: key determinant is student numbers.

Such improvisation enabled the trainees to have practical experience in many of the sports taught. However, it would be more convenient if the university had its own facilities and the trainees did

not, therefore, have to get out of the university for practical lessons. This would enable them to have ample time for practice even outside the normal lessons. The relevancy of adequate facilities cannot be under looked in PE as they enhance motor density[10] and a study by Balungi (2013) in Kyambogo also observed limitation of departmental facilities in training of PE teacher. Brown (1999) stresses that presence of adequate facilities enables objectives studies and assessment of activities in Physical Education programmes.

4.4.4 Assessment and quality assurance

The study examined the assessment and quality assurance methods used to produce quality Physical Education graduates and found out that the two universities almost use the same assessment and quality assurance measures upon their Physical Education teacher trainees. Within the semester, the students are given progressive Coursework activities and tests which on a specific unit exam contribute 30% and 40% of the final mark in Makerere and Kyambogo respectively.

Table 4. 11: Assessment and quality assurance modes for PE Teacher Trainees

Kyambogo university	Contribution	Makerere university	Contribution
Progressive coursework activities and tests	40% of exam	Progressive coursework activities and tests	30%of exam
End of semester examinations - Practical assessments - Theory exams	60% of exam	End of semester examinations - Practical assessments - Theory exams	70% of exams
school practice sessions research Project Tutorial presentations Mentorship	Independent exam	School practice sessions Research Projects Tutorial presentations Mentorship	Independent exam

[10]Motor density is a measure of the number of individual or students participating actively in physical activities at a particular time. The higher the number of participants, the bigger the motor density.

As shown in the table 4.11, end of semester Practical and Theory assessments contributing 60% and 70% in total in Makerere and Kyambogo respectively. The teacher trainees complete a three months' school practice session in a secondary school with a component of mentorship and

assessment that constitutes an independent exam. The teacher trainee completes two such sessions in the last two years of the course. The teacher trainees at the two universities are also introduced to research methods and complete an undergraduate research project that also constitutes an exam on its own. The research project for BSED students in Kyambogo is supervised by the faculty of science, while the one at Makerere is supervised by the School of Education. These resemblance in assessment modalities between Makerere and Kyambogo University can be Justifies by difficulty in assessing PE content. Byaruhanga (2009) also maintains that assessment in physical education has been particularly difficult due to the nature of the content areas covered as well as the knowledge regarding improvement in skill development. Often these elements affect assessment results, that is to say; amount of time with students and knowledge of skill components (Biggs, 1999). Quality physical education requires the alignment of curriculum, pedagogy, and assessment (Lorente-Catalan & Kirk, 2016). Lopez et al. (2013) suggest that assessment techniques such as alterative assessment, authentic assessment and formative assessment aim at providing a wide array of information to the physical Education instructor to determine the learning that has occurred, but rarely used by most Educators.

4.5 Perceived competencies of the secondary school PE teacher graduates

The third specific objective was to compare the perceptions of Kyambogo and Makerere graduate Secondary School Physical Education teachers regarding the impact of their PETT on their practices in schools. The study compared the extent to which the graduate secondary school PE teacher from the two universities feel satisfied with their PETT in respect to instruction of Physical Education in schools. The three basic competence areas examined were; planning of instruction, instruction presentation and assessment of instruction.

4.5.1 Instructional planning

Perceived competence levels for the graduates from the two universities were compared basing on 10 competence items that are important in planning a Physical Education lesson. The respondent was asked how much they were satisfied in terms of the competence they acquired during their PETT in the university. The extent to which each item was responded to is shown in table 4.12.

Table 4. 12: Percentage frequencies of responses on instructional planning items

Competence areas	Very Dissatisfied (%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Very Satisfied (%)
Makerere university					
Preparing a written PE lesson plan	0.0	10.7	21.4	53.8	14.3
Making the Lesson Plan based on standards	0.0	0.0	14.3	60.7	25.0
Isolating clearly the skill/concepts to be learnt	7.1	3.6	10.7	42.9	35.7
Putting objective in appropriate context	0.0	0.0	10.7	46.4	42.9
Stating Objectives smartly	0.0	10.7	7.1	39.3	28.6
Planning all available class time for learning	0.0	17.9	17.9	53.6	28.6
Allocating and creating enough equipment	0.0	0.0	14.3	67.9	17.9
Making the teaching space safe	0.0	0.0	3.6	21.4	75.0
Making the learning activities safe	7.1	14.3	25.0	35.7	17.9
planning Instruction progressive and sequential	7.1	3.6	14.3	46.4	28.6
Kyambogo university					
Preparing a written PE lesson plan	0.0	0.0	12.5	54.2	33.3
Making the Lesson Plan based on standards	0.0	0.0	16.7	33.3	50.0
Isolating clearly the skill/concepts to be learnt	0.0	0.0	4.2	75.0	20.8
Putting objective in appropriate context	0.0	0.0	16.7	37.5	45.8
Stating Objectives smartly	4.2	12.5	4.2	33.3	45.8
Planning all available class time for learning	0.0	4.2	16.7	41.7	37.8
Allocating and creating enough equipment	0.0	0.0	12.5	54.2	33.3
Making the teaching space safe	0.0	0.0	20.8	54.2	25.0
Making the learning activities safe.	0.0	0.0	12.5	50.0	37.5
planning Instruction progressive and sequential	0.0	0.0	16.7	50.0	33.3

The results in Table 4.12 show that majority of the respondent Physical Education teacher graduates from Makerere university were satisfied that their PETT prepared them to be able to prepare a written PE lesson plan (68%), make the Lesson Plan based on standards (86%), isolate clearly the skill/concepts to be learnt(79%), Put objective in appropriate context (89%), State Objectives smartly (68%), Plan all available class time for learning (82%), allocate and creating enough equipment (86%), make the teaching space safe (96%), Make the learning activities safe (54%) and plan Instruction progressively and sequentially (75%). However, there is also a reasonable

number those who felt that their PETT was not sufficient in making them competent to make the Lesson Plan based on standards (11%), Isolate clearly the skill/concepts to be learnt (11%), plan all available class time for learning (11%), Allocate and create enough equipment for all student students (18 %) and plan Instruction in progressive and sequential manner (21%). This means that PETE in Makerere university is sufficiently effective in skilling a PE teacher in those areas of instruction planning that require routine activities but less sufficient in those areas that require creativity of the Physical Education teacher graduate.

Just like at Makerere University, majority of the respondent Physical Education teacher graduates from Kyambogo University were also satisfied that their PETT prepared them to be able to prepare a written PE lesson plan (88%), make the Lesson Plan based on standards (83%), isolate clearly the skill/concepts to be learnt(96%), Put objective in appropriate context (83%), State Objectives smartly (97.1%), Plan all available class time for learning (80%), allocate and creating enough equipment (88%), make the teaching space safe (79%), Make the learning activities safe (88%) and plan Instruction progressively and sequentially (83%). Some of the respondents felt that their PETT was not sufficient in making them competent to plan all available class time for learning (4%) and stating the learning objectives smartly (17%). PE teacher graduates from Kyambogo University felt competent in those planning areas that require both knowledge and creativity more than those from Makerere University.

Table 4. 13: Descriptive Statistics and results of chi-square tests for the instructional planning competence

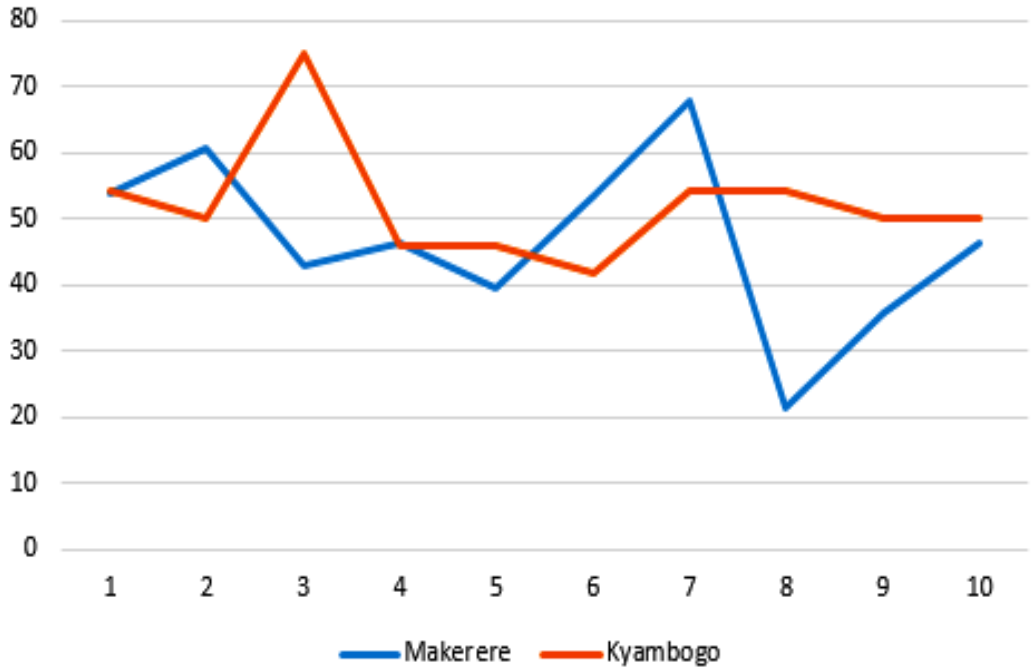
Instructional planning competence	Institution	Competence satisfaction (%)	X^2	Df	Sign
Preparing a written PE lesson plan	Makerere	86.1	13.117	1	0.000
	Kyambogo	100			
Making the Lesson Plan based on standards	Makerere	98.9	0.96	1	0.327
	Kyambogo	100			

Isolating clearly the skill/concepts to be learnt	Makerere Kyambogo	87.8 100	12.471	1	0.000
Putting objective in appropriate context	Makerere Kyambogo	98.9 100	0.928	1	0.335
Stating Objectives smartly	Makerere Kyambogo	86.1 82.3	0.462	1	0.497
Planning all available class time for learning	Makerere Kyambogo	82.0 95.2	7.6	1	0.006
Allocating and creating enough equipment	Makerere Kyambogo	98.9 100	1.017	1	0.313
Making the teaching space safe	Makerere Kyambogo	99 100	0.819	1	0.365
Making the learning activities safe	Makerere Kyambogo	72 100	28.28	1	0.000
planning Instruction progressive and sequential	Makerere Kyambogo	87.2 100	11.355	1	0.001

There is a significant relationship between the institution from which the PE teachers graduated and teachers' satisfaction with the competence of Preparing a written PE lesson plan, isolating clearly the skill/concepts to be learnt, planning all available class time for learning, Making the learning activities safe and planning Instruction progressive and sequential ($p \leq 0.05$). PE teachers from Kyambogo University were more satisfied with these competences than those from Makerere University.

There is no significant relationship between the institution from which the PE teachers graduated and teachers' satisfaction with the competence of making the Lesson Plan based on standards, putting objective in appropriate context, stating objectives smartly, Allocating and creating enough equipment and making the teaching space safe($p \geq 0.05$). PE teachers from Kyambogo University had same level of satisfaction as those from Makerere University. The highest percentage score at each of the competence item is shown in figure 4.3

Figure 4. 2: Highest percentage scores on the 10 items of instructional planning competence



The first sub-hypothesis of the third hypothesis stated that there is no significant difference in perceived competences on instructional planning between the graduate secondary school physical education teachers of Kyambogo and Makerere. The results from the study showed that there was a significant difference in perceived instructional planning competencies among the physical education teachers in Kyambogo and Makerere. The secondary Physical Education teachers from Kyambogo had higher levels of their perceived instructional planning competencies compared to those teachers who graduated from Makerere University.

The low levels of perceived instructional planning competencies of the physical Education teachers who graduated from Makerere University can be explained by the fact that, during PETT in Makerere University, theoretical information was provided in abundance to build up an academic foundation; this was done with almost no guidance on how to utilize this knowledge in practice. For many teachers from Makerere, a large percentage of their theoretical knowledge base,

derived from university level education, has basically become redundant through the inability to fully utilize it within practical situations.

In addition, the teacher training programs in Makerere University focus on implementation competencies rather than planning competencies. Furthermore, the physical education curriculum in various secondary schools might not be organized in ways that help the physical Education teachers to select and use appropriate educational objectives and procedures.

Teachers in MacPhail and Halbert's (2010) study reported that the planning and preparing stage was time consuming, but the better planning resulted in lessons being easier to manage and organize. Teachers make instructional decisions by planning a lesson, a unit of instruction, and a curriculum. Then, they implement the plan and take actions to help students learn the material. For example, a teacher may plan a unit of instruction in fundamental movement skills for elementary school students by designing content to cover, what will be taught in each class session, how the material will be presented to students, and how students will practice to learn the skills. Planning for content development and for modifications will help students develop motor skill. Teachers who plan more have students who learn more (Silverman et al, 1995). Teachers can plan to deal with changing practice tasks so that all students can practice at an appropriate level. Finally, student skill level is an important variable to consider in planning tasks as both appropriate and inappropriate trials have a stronger influence on low skilled students than on other students (Silverman, 2005).

4.5.2 Instructional presentation

Perceived competence levels for the graduates from the two universities were compared basing on 13 competence items that are important in actual presentation of a Physical Education lesson. The respondent was asked how much they are satisfied in terms of the competence they acquired during

their PETT in the university. The extent to which each item was responded to is shown in table 4.14

Table 4. 14: Percentage frequencies of responses on instructional presentation items

Competence areas	Very Dissatisfied		Dissatisfied		Neutral		Satisfied		Very Satisfied	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Makerere university										
providing relevant warm-up activities	0	0.0	2	7.1	4	14.3	19	67.9	3	10.7
Maximizing learning time	0	0.0	2	7.1	11	39.3	7	25.0	8	28.6
Providing appropriate Rules/strategies	0	0.0	3	10.7	7	25.0	10	35.7	8	28.6
Setting clear Drills and activities	0	0.0	4	14.3	5	17.9	12	49.2	7	25.0
Providing Effective demonstrations	0	0.0	1	3.6	9	32.1	13	46.4	5	17.9
Ensuring transfer of knowledge	1	3.6	4	14.3	6	21.4	9	32.1	8	28.6
Provide sufficient time of Practice	0	0.0	4	14.3	7	25.0	11	39.3	6	21.4
Offering effective corrective feedback	1	3.6	3	10.7	3	10.7	6	21.4	15	53.8
Motivating students	0	0.0	7	25.0	1	3.6	10	35.7	10	35.7
Controlling pace of the instructed activities	4	14.3	3	10.7	0	0.0	11	39.3	10	25.7
Keeping all students engaged.	2	7.1	5	17.9	9	32.1	8	28.6	4	14.3
Making all students challenged in the lesson	0	0.0	0	0.0	2	7.1	6	21.4	19	67.9
Monitoring attendance all in all lessons	2	7.1	0	0.0	7	25.0	14	50.0	5	17.9
Kyambogo university										
providing relevant warm-up activities	0	0.0	0	0.0	3	12.5	14	58.3	7	29.2
Maximizing learning time	0	0.0	0	0.0	0	0.0	11	45.8	13	54.6
Providing appropriate Rules/strategies	0	0.0	1	4.2	3	12.5	12	50.0	8	33.3
Setting clear Drills and activities	1	4.2	3	12.5	4	16.7	11	45.8	5	20.8
Providing Effective demonstrations	4	16.7	5	20.8	2	8.3	10	41.7	3	12.5
Ensuring transfer of knowledge	0	0.0	0	0.0	0	0.0	19	79.2	5	20.8
Provide sufficient time of Practice	0	0.0	0	0.0	2	8.3	8	33.3	5	20.8
Offering effective corrective feedback	0	0.0	2	8.3	3	12.5	17	70.8	7	29.2
Motivating students	0	0.0	1	4.2	5	20.5	8	33.3	10	41.7
Controlling pace of the instructed activities	2	8.3	1	4.2	2	8.3	12	50.8	7	29.2
Keeping all students engaged.	0	0.0	3	12.5	3	12.5	9	37.5	9	37.5
Making all students challenged in the lesson	0	0.0	0	0.0	0	0.0	16	66.7	8	33.3
Monitoring attendance all the time	0	0.0	0	0.0	4	16.7	12	50.0	8	33.3

Results in table 4.14 show that majority of the respondent graduates from Makerere University felt that their PETT was sufficient to make them competent in providing relevant warm-up activities (79%), maximizing learning time(54%), providing appropriate Rules/strategies (64%), setting clear drills and activities(74%), providing Effective demonstrations (64%), ensuring transfer of knowledge (61%), providing learners with sufficient time of Practice of skill in a lesson (61%),

offering effective corrective feedback (66%), motivating students (71%), controlling pace of the instructed activities (65%), keeping all students engaged (43%), making all students challenged in the lesson (89%) and monitoring attendance in all lessons (68%). However, some of the respondents felt that their PETT was not sufficient to make them competent in providing relevant warm-up activities (7%), maximizing learning time (7%), providing appropriate Rules/strategies (11%), setting clear Drills and activities(14%), providing Effective demonstrations (4%), ensuring transfer of knowledge (18%), providing learners with sufficient time of Practice of skill in a lesson (14%), offering effective corrective feedback (14%), motivating students (25%), controlling pace of the instructed activities (25%), keeping all students engaged (25%)and monitoring attendance in all lessons (7%).

Comparing with respondents that graduated from Kyambogo University as shown in Table 4.14, the results still show that majority of the respondents felt that their PETT was sufficient to make them competent in providing relevant warm-up activities (88%), maximizing learning time (100%), providing appropriate Rules/strategies (83%), setting clear Drills and activities(67%), providing Effective demonstrations (54%), ensuring transfer of knowledge (100%), providing learners with sufficient time of Practice of skill in a lesson (54%), offering effective corrective feedback (100%), motivating students (75%), controlling pace of the instructed activities (80%), keeping all students engaged (75%), making all students challenged in the lesson (100%) and monitoring attendance in all lessons (83%). There was also a number of the respondents who felt that their PETT was not sufficient to make them competent in providing appropriate Rules/strategies in class (4%), setting clear drills and activities (17%), providing Effective demonstrations (38%), offering effective corrective feedback (8%), motivating students (4%),

controlling pace of the instructed activities (13%) and keeping all students engaged throughout the lesson (13%).

Table 4. 15:Descriptive Statistics and results of chi-square tests for the instructional presentation competence

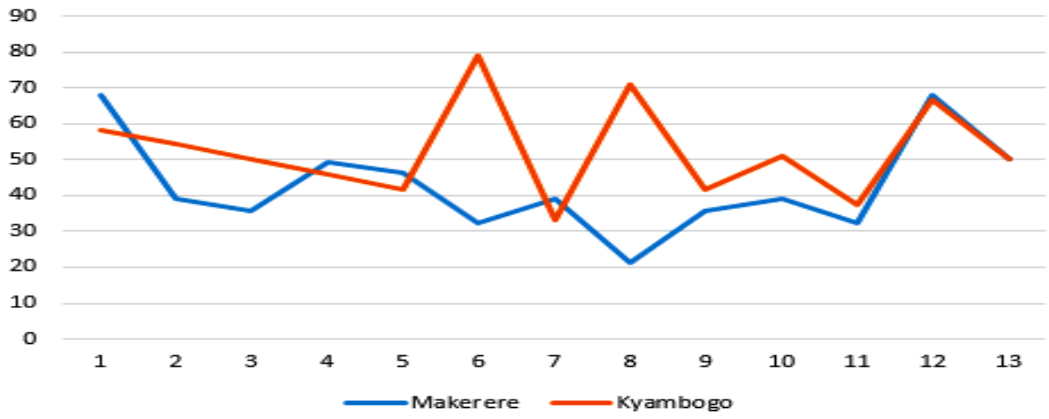
Instructional presentation competence	Institution	Competence satisfaction (%)	X^2	Df	Sign
providing relevant warm-up activities	Makerere	91.9	7.463	1	0.006
	Kyambogo	100			
Maximizing learning time	Makerere	88.5	11.997	1	0.001
	Kyambogo	100			
Providing appropriate Rules/strategies	Makerere	85.3	4.860	1	0.027
	Kyambogo	95.4			
Setting clear Drills and activities	Makerere	84.1	0.545	1	0.460
	Kyambogo	79.8			
Providing Effective demonstrations	Makerere	94.1	25.341	1	0.000
	Kyambogo	58.7			
Ensuring transfer of knowledge	Makerere	77.2	25.332	1	0.000
	Kyambogo	100			
Provide sufficient time of Practice	Makerere	81.3	11.307	1	0.001
	Kyambogo	100			
Offering effective corrective feedback	Makerere	84.3	3.407	1	0.065
	Kyambogo	92.6			
Motivating students	Makerere	74	13.795	1	0.000
	Kyambogo	94.9			
Controlling pace of the instructed activities	Makerere	72.2	5.293	1	0.021
	Kyambogo	86			
Keeping all students engaged.	Makerere	63.2	10.069	1	0.002
	Kyambogo	85.2			
Making all students challenged in the lesson	Makerere	98.9	1.117	1	0.291
	Kyambogo	100			
Monitoring attendance all in all lessons	Makerere	90.7	8.106	1	0.004
	Kyambogo	100			

There is a significant relationship between the institution from which the PE teachers graduated and teachers' satisfaction with the competence of providing relevant warm up activities, minimizing learning time, Providing appropriate Rules/strategies, Providing Effective demonstrations , ensuring transfer of knowledge, Provide sufficient time of Practice, motivating students, Controlling pace of the instructed activities, Monitoring attendance all in all lessons and

keeping all students engaged ($p \leq 0.05$). PE teachers from Kyambogo University were more satisfied with these competences than those from Makerere University.

There is no significant relationship between the institution from which the PE teachers graduated and teachers' satisfaction with the competence of Setting Clear Drills and activities, offering effective corrective feedback, making all students challenged in the lesson ($p \geq 0.05$). Physical Education teachers from Kyambogo University had same level of satisfaction as those from Makerere University. The highest percentage score at each of the competence item is shown in figure 4.4;

Figure 4. 3: Highest percentage scores on the 13 items of instructional presentation competence



the second sub-hypothesis of the third hypothesis stated that there is no significant difference in perceived competences on instructional presentation between the graduate secondary school physical education teachers of Kyambogo and Makerere. The results from the study revealed that there was no significant difference in perceived instructional presentation competencies among the physical education teachers in Kyambogo and Makerere. This implies that physical education teachers from Makerere and Kyambogo had similar levels of perceived instructional presentation competencies. This meant that the overall PETT in Kyambogo and Makerere University devoted much more time and attention to learning about practical demonstration of sports activities,

therefore, the physical Education teachers from these two universities had higher self-confidence in their ability to demonstrate sports. In addition, this meant that, during their PET training, the teachers developed more practical knowledge. In this regard they now experience fewer problems implementing the acquired instructional presentation competencies. On a regular basis, these teachers integrate this knowledge within their actual teaching.

It is well known that teacher is the most important factor in ensuring the learning process is in the right track. Therefore, a physical Education teacher should first understand the core knowledge of teaching. The core knowledge in teaching (Shulman 1987), is the knowledge of teaching elements that are possessed by the teacher in order to implement the teaching process. Teachers should have the element of (a) content knowledge, (b) basic pedagogy knowledge, (c) pedagogy content knowledge, (d) knowledge and curriculum, (e) knowledge in learning context, (f) knowledge of students and their characteristics, and (g) knowledge in learning goals for effective learning, interesting and motivating student to participate in physical education activities (Christensen, 1996). P.E teachers should be aware of all the changes in the learning environment so that the teaching process will be more effective. Furthermore, the P.E teacher should know various knowledge and experience regarding the students' psychomotor, cognitive and affective domain, because these three domains are the heart of children basic development (Gallahue& Donnelly, 2003). Teachers also should possess and master the skills to convey the subject content to ensure the teaching process can be conducted in harmony. The teacher should have a good attitude towards P.E subject teaching and learning (Siendentop, 2007).

4.5.3 Assessment of learning

The study also compared perceived competence levels for the graduates from the two universities basing on five competence items that are important in assessment of learning in Physical

Education. The respondent was asked how much they are satisfied in terms of the competence they acquired during their PETT in the university. The extent to which each item was responded to is shown in table 4.16.

Table 4. 16: Percentage frequencies of responses on Assessment of Learning

Competence areas	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Makerere university					
monitoring students' learning during lesson	4 (14.3%)	4 (14.3%)	3(10.7%)	14(50.0%)	7(25.0%)
Assessing before, during, and after instruction	1(3.6%)	4(14.3%)	12(42.9%)	6(21.4%)	5(17.9%)
Using Multiple assessment strategies and tools	4(14.3%)	2(7.1%)	11(39.3%)	9(32.1%)	2(7.1%)
Using Students self-assessment	2(7.1%)	8(28.6%)	11(39.3%)	2(7.1%)	1(3.6%)
Documenting students' assessments	0(0.0%)	2(7.1%)	7(25.0%)	10(35.7%)	9(32.1%)
Kyambogo University					
monitoring students' learning during lesson	0(0.0%)	1(4.2%)	5(20.8%)	9(37.5%)	9(37.5%)
Assessing before, during, and after instruction	1(4.2%)	4(12.5%)	3(12.5%)	10(41.7%)	6(25.0%)
Using Multiple assessment strategies and tools	1(4.2%)	3(37.5%)	9(37.5%)	5(20.8%)	6(25.0%)
Using Students self-assessment	3(12.5%)	5(29.2%)	7(29.2%)	6(25.0%)	2(8.3%)
Documenting students' assessments	0(0.0%)	0(0.0%)	6(25.0%)	12(50.0%)	6(25.0%)

Results in table 4.16 show that majority of the respondents from Makerere University felt that their PETT was sufficient to make them competent in monitoring students' understanding and progress (36%)**,** using appropriate assessments before, during, and after instruction (39%)**,** using multiple assessment strategies and tools to monitor student learning (39%)**,** making students make self-assessment and be aware of their own progress toward learning goals(43%) and documenting students' progress in a retrievable record-keeping system (57%)**.** Some other respondents felt that their PETT was not sufficient to make them competent in**,** monitoring students' understanding and progress (28.6 %),using appropriate assessments before, during, and after instruction (17%)**,** using multiple assessment strategies and tools to monitor student learning (21%), making students make self-assessment and be aware of their own progress toward learning goals (36%) and documenting students' progress in a retrievable record-keeping system (7%).The situation was almost similar at Kyambogo. Results in table 4.14 show that majority of the respondents who graduated from

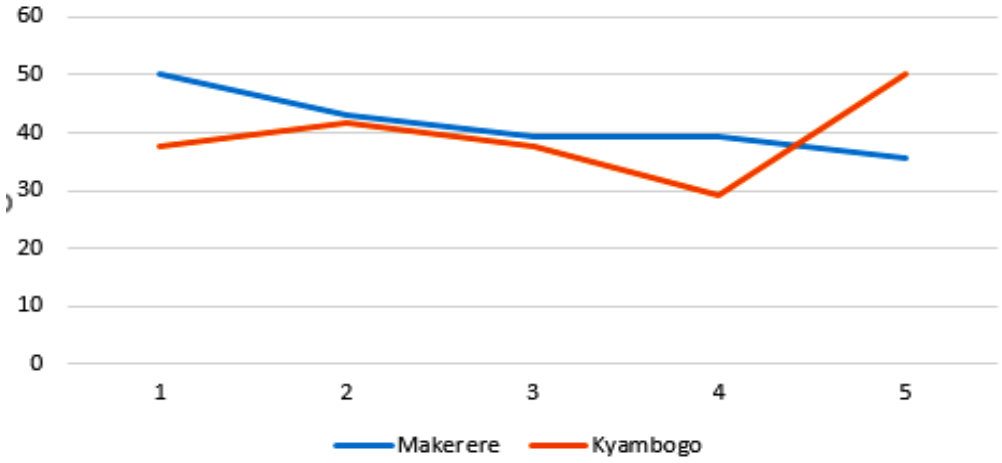
Kyambogo University felt that their PETT was sufficient to make them competent in monitoring students' understanding and progress (71%)**,** using appropriate assessments before, during, and after instruction (67%)**,** using multiple assessment strategies and tools to monitor student learning (46%)**,** and documenting students' progress in a retrievable record-keeping system (76%) but not competent in making students make self-assessment and be aware of their own progress toward learning goals(42%).

Table 4. 17: Descriptive Statistics and results of chi-square tests for the assessment of learning competence

Assessment of learning competence	Institution	Competence satisfaction (%)	X^2	Df	Sig
monitoring students' learning during lesson	Makerere Kyambogo	72.1 94.9	15.819	1	0.000
Assessing before, during, and after instruction	Makerere Kyambogo	68.4 79.8	2.340	1	0.126
Using Multiple assessment strategies and tools	Makerere Kyambogo	65 52.3	2.364	1	0.124
Using Students self-assessment	Makerere Kyambogo	23.4 44	5.315	1	0.021
Documenting students' assessments	Makerere Kyambogo	90.7 100	7.343	1	0.007

There is a significant relationship between the institution from which the PE teachers graduated and teachers' satisfaction with the competence of monitoring students learning during lesson, using students' self-assessment and documenting students' assessments ($p \leq 0.05$). PE teachers from Kyambogo University were more satisfied with these competences than those from Makerere University. There is no significant relationship between the institution from which the PE teachers graduated and teachers' satisfaction with the competence of assessing before, during and after instruction and using multiple assessment strategies and tools ($p \geq 0.05$). PE teachers from Kyambogo University had same level of satisfaction as those from Makerere University. The highest percentage score at each of the competence item is shown in figure 4.5

Figure 4. 4: Highest percentage scores on the 5 items of assessment of learning competence



The third sub-hypothesis of the third hypothesis stated that there is no significant difference in perceived competences on assessment of learning between the graduate secondary school physical education teachers of Kyambogo and Makerere. The results revealed that there was a significant difference in perceived assessment of learning competencies among the physical education teachers in Kyambogo and Makerere. The secondary Physical Education teachers from Kyambogo had higher levels of their perceived assessment of learning competencies compared to those teachers who graduated from Makerere University.

Johnson (2004) stated that although it takes more time to plan and create peer assessment, it provides students the opportunity to be more involved and responsible for their own learning and their classmates' learning. The main challenge that teachers most often cite when implementing formative assessment is the increased time needed for planning. However, several studies noted that the increased time spent on lesson preparation was worth the effort (Chroinin and Cosgrave, 2013).

Table 4. 18: Means and Standard Deviations of the Scores of Study Variables

Variable	University	N	Minimum score	Maximum score	Mean	Standard deviation
	Makerere	28	17	44	37.13	4.45

Instructional planning	Kyambogo	24	24	47	42.14	3.45
Instructional presentation	Makerere	28	15	59	50.96	5.21
	Kyambogo	24	29	61	56.21	3.14
Assessment of learning	Makerere	28	9	21	15.85	2.16
	Kyambogo	25	13	23	20.42	3.34

Results from Table 4.18 reveal that the Secondary PE teachers' perceived competence on instructional planning range from low through moderate to high since their minimum scores are in the bracket of low perceived competence which was between 10 and 20 and their maximum scores are in the bracket of high perceived competence which is between 30 and 50 but since their mean scores were in the brackets of high perceived competence, it shows that most of the teachers had high level of perceived competence levels on instructional planning. Results further show that the perceived competence levels of graduate PE teacher from Kyambogo University (mean=42.14) were higher than those for Makerere University (mean=37.13).Results from Table 4.18 also reveal that the Secondary PE teachers' perceived competence levels on instructional presentation range from low through moderate to high since their minimum scores are in the bracket of low perceived competence which is between 13 and 26 and their maximum scores are in the bracket of high perceived competence which is between 38 and 65 but since their mean scores were in the brackets of high perceived competence, it shows that most of the teachers had high levels of perceived competence on instructional planning. Results further show that the perceived competence levels of graduate PE teacher from Kyambogo university on instructional presentation (mean=50.96) were higher than those from Makerere university (56.21).Results again show that the Secondary school PE teachers' perceived competence levels on assessment of learning range from low through moderate to high since their minimum scores are in the bracket of low perceived competence which is between 5 and 8 and their maximum scores are in the bracket of high

perceived competence which is between 16 and 25 but the Graduate PE teacher from Makerere university had moderate levels of perceived competence on assessment of learning since their mean scores were in the moderate level of perceived competence which is between 9 and 24 however those from Kyambogo had high level of perceived competence on assessment of learning (mean =20.42)

The third hypothesis of the study was that there is no significant difference in perceived competences between the graduate secondary school physical education teachers of Kyambogo and Makerere'. However, to account for the specific dimensions of the PE teacher's perceived competence, it was sub divided into three sub-hypotheses:

3a). There was no significant difference in perceived competences on instructional planning between the graduate secondary school physical education teachers of Kyambogo and Makerere.

3b). There was no significant difference in perceived competences on instructional presentation between the graduate secondary school physical education teachers of Kyambogo and Makerere.

3c). There was no significant difference in perceived competences on assessment of learning between the graduate secondary school physical education teachers of Kyambogo and Makerere.

The difference in perceived competence was analyzed using the independent samples t-test and results are shown in table 4.19 below.

Table 4. 19: Descriptive Statistics and results of t-tests for the perceived level competence

Perceived competence	Institution	N	Mean	Df	t	Sig
Instructional planning	Makerere	28	3.71	50	2.305	0.025

	Kyambogo	24	4.21			
Instructional presentation	Makerere	28	3.92	50	1.642	0.107
	Kyambogo	24	4.17			
Assessment of learning	Makerere	28	3.37	50	2.678	0.010
	Kyambogo	24	4.08			
Total	Makerere	28	11.0	50	1.721	0.023
	Kyambogo	24	12.46			

Results in table 4.19 show that generally there exists a significant difference in perceived competences of the graduate secondary school physical education teachers of Kyambogo and Makerere (t=1.721, p=0.023). However, on analyzing the specific dimension of PE teacher perceived competence, there were significant differences at (α <0.05) between the means of the physical education teachers' responses to instructional planning competencies t (50) = 2.305, p <.05 and assessment competencies t (50) = 2.678, p < .05 based on the university they graduated from. The secondary Physical Education teachers from Kyambogo had higher levels of their perceived competencies in these areas compared to those teachers who graduated from Makerere University. Furthermore, Table 4.16 shows that there were no significant differences t (50) = 1.642, p > .05 between the means of the physical education teachers' responses to instructional presentation competencies based on the university they graduated from.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions to the study, the suggested recommendations and the way forward with regard to the training of undergraduate PE teachers in Makerere Kyambogo University.

5.2 Conclusion

Examination of the PE teacher training curriculum indicated that the PETE curriculum at Makerere and Kyambogo had a rich content made up of both theory and practical units; and that the departments had qualified lecturers handling the PE teacher trainees in the various units. The results of the study revealed that Physical Education Teacher Training curriculum content was similar for the two study universities. This implies that both Kyambogo and Makerere University teach more or less the same content to undergraduate physical education teacher trainees during their university base training. The results also indicated that Makerere University has fewer instructors of PE units as compared to Kyambogo University. Although the majority of instructors in Kyambogo University are on part-time basis so not fully stationed at the University.

According to the results, the two study universities have tried to some extent to reach and maintain the requirements for NCHE with respect to the infrastructure requirements for Physical Education Teacher Training. Kyambogo University has a bigger stock of equipment required.

Furthermore, the study results indicated that the two universities almost use the same assessment and quality assurance measures upon their PE teacher trainees, that is to say; the students are given progressive Coursework activities, tests and end of semester Practical and Theory assessments

within the semester. Assessment is an essential element to understanding student learning in both Kyambogo and Makerere University.

The results from the study showed that perceived instructional planning competencies among the physical education teachers differed by the institution from which they graduated. Secondary Physical Education teachers from Kyambogo had higher levels of their perceived instructional planning competencies compared to those teachers who graduated from Makerere University.

According to the results from the study, perceived instructional presentation competencies among the physical education teachers in Kyambogo and Makerere did not differ. This implies that physical education teachers from Makerere and Kyambogo had similar levels of perceived instructional presentation competencies.

The results revealed that perceived assessment of learning competencies among the physical education teachers differed by the institution from which they graduated. The secondary Physical Education teachers from Kyambogo had higher levels of their perceived assessment of learning competencies compared to those teachers who graduated from Makerere University.

A thorough review of literature shows that results of this study have added a new body of knowledge for example this study has generated useful information on the current training of Physical Education student teachers in Makerere and Kyambogo Universities in Uganda. The study has also elaborated on the three specific dimensions of PE teacher-related perceived competencies depending on the institution from which the secondary physical Education teacher graduated from. Conclusively, this study has provided information on differences and similarities in the levels of instructional planning, instructional presentation and assessment of learning competencies among secondary physical Education teachers who graduated from Makerere and Kyambogo University.

5.3 Recommendations

Based on the findings of the study the following recommendations were put forward. Both Kyambogo and Makerere university should increase on full time staff to boost PETT units in the respective PETT departments. Secondly, the ministry of Education and sports through its agencies should regularly have in-service training of Secondary school PE teachers to enhance their competences. More research should be done to examine PETT in others institutions in Uganda at different levels and also assess competences of PE teachers at different education levels. The course content within the current Physical Education Teacher Training programme and accompanying teaching methods should be carefully examined and discussed among the faculty teachers to ensure that future graduates receive an applicable and flexible knowledge base. Although the responsibility for providing quality Physical Education activities in secondary schools is often ascribed to PE teachers, the University Faculties should become more active in the continuous monitoring of practice and develop flexible Physical Education Teacher Training curricula that will be able to quickly adapt to the emerging needs posed by social and economic change.

To avoid the future unrealistic implementation of the physical Education curriculum contents, the reorganization of the existing Physical Education Teacher Training programme could follow the suggestions of Wiegand et al. (2004), who suggest that the curriculum content in Physical Education Teacher Training programmes should be limited only to content areas that offer potential pedagogical relevance to the pre-service student, that it should be taught in a pedagogically appropriate manner that emphasizes the relationship between theory and PE teaching, and that it should be taught by PE teacher educators who are better able to establish instructional relevance and assist students in making the connections between theory and practice.

If these recommendations were to be taken into consideration, they would further enable Secondary PE teachers to acquire higher levels of competencies and progressively address areas that have been highlighted as in need of improvement.

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APPENDICES

Appendix A: THE PROFILE OF A MODERN PHYSICAL EDUCATION TEACHER IN UGANDA

(Physical Education and Sports Department: Ministry of Education and Sports, 2013)

DOMAIN	DESCRIPTION
Cognitive	Knowledge of subject content, curriculum interpretation, ability to explain PES concepts, ability to plan and organize PE programmes and ability to impart knowledge.
Affective	Interest in PES, self-esteem/confidence, effective communication and the teacher's professional appearance.
Psychomotor	Ability to plan, organize and manage PES (Likemotor density / learning by doing), ability to demonstrate and ability to communicate effectively.

TEACHER'S CORE COMPETENCES TAXONOMY					
RANK (POINTS)	**Knowledge/Cognitive**	**RANK (POINTS)**	**Attitude/Affective**	**RANK (POINTS)**	**Skills/psychomotor**
1 (93%)	Knowledge of subject content	**1** (92%)	Interest in PE	**1** (83%)	Plan, organize and manage PE
2 (90%)	Curriculum interpretation	**2** (73%)	Self-esteem/ confidence		
3 (61.1%)	Explain basic concepts	**3** (71%)	Effective communication	**2** (77%)	Ability to demonstrate skills
4 (60.6%)	Ability to plan and organize PE lessons	**4** (59%)	Professional appearance		
5 (56%)	Ability to impart knowledge	**5** (37%)	Caring about equipments and facilities	**3** (28%)	Ability to communicate
6 (35%)	Creativity and innovativeness	**6** (37%)	Honest		
7 (30%)	Ability to assess learners	**7** (29%)	Empathy	**4** (53%)	Ability to assess learners' performance
8 (24%)	Ability to handle learners with special needs				

Appendix B: UNIVERSITY PHYSICAL EDUCATION TEACHER TRAINING CURRICULUM CONTENT ANALYSIS GUIDE

1) Scientific and Theoretical Knowledge

Does the curriculum include	**YES**	**NO**
1. Specific units that can enable a student teacher to *describe* and *apply* physiological and biomechanical concepts related to skillful movement, physical activity and fitness?	☐	☐
2. Specific units that can enable a student teacher to *describe* and *apply* motor learning and psychological/behavioral theory related to skillful movement, physical activity, and fitness.	☐	☐
3. Specific lessons that can enable a student teacher to *describe* and *apply* motor development theory and principles related to skillful movement, physical activity, and fitness.	☐	☐
4. Specific instructions that can enable a student teacher to identify historical, philosophical, and social perspectives of physical education issues.	☐	☐
5. Specific instructions that can enable a student teacher to *analyze* and *correct* critical elements of motor skills and performance concepts.	☐	☐

2) Skill and Fitness Based Competence

Does the curriculum include	**YES**	**NO**
1. Specific instructions that can enable a student teacher to demonstrate personal competence in motor skill performance for a variety of physical activities and movement patterns.	☐	☐
2. Specific instructions that can enable a student teacher to achieve and maintain a health-enhancing level of fitness throughout the program.	☐	☐

3. Specific instructions that can enable a student teacher to demonstrate performance concepts related to skillful movement in a variety of physical activities. ☐ ☐

3) Planning and Implementation

Does the curriculum include	**YES**	**NO**
1. Specific lessons that can enable a student teacher design and implement short and long term plans that are linked to program and instructional goals as well as a variety of student needs.	☐	☐
2. Specific lessons that can enable a student teacher develop and implement appropriate (e.g., measurable, developmentally appropriate, performance based) goals and objectives aligned with basic standards.	☐	☐
3. Specific lessons that can enable a student teacher design and implement content that is aligned with lesson objectives.	☐	☐
4. Specific lessons that can enable a student teacher plan for and manage resources to provide active, fair, and equitable learning experiences.	☐	☐
5. Specific lessons that can enable a student teacher plan and adapt instruction for diverse leaner needs, adding specific accommodations and/or modifications for student exceptionalities.	☐	☐
6. Specific lessons that can enable a student teacher plan and implement progressive and sequential instruction that addresses the diverse needs of all learners.	☐	☐
7. Specific lessons that can enable a student teacher demonstrate knowledge of current technology by planning and implementing learning experiences that require learners to appropriately use technology to meet lesson objectives.	☐	☐

4) Instructional Delivery and Management

Does the curriculum include	**YES**	**NO**

1. Specific instructions that can enable a student teacher to demonstrate effective verbal and non-verbal communication skills across a variety of instructional formats. ☐ ☐

2. Specific instructions that can enable a student teacher implement effective demonstrations, explanations, and instructional cues and prompt to link physical activity concepts to appropriate learning experiences. ☐ ☐

3. Specific instructions that can enable a student teacher provide effective instructional feedback for skill acquisition, learning and motivation. ☐ ☐

4. Specific instructions that can enable a student teacher recognize the changing dynamics of the environment and adjust instructional tasks based on leaner's responses. ☐ ☐

5. Specific instructions that can enable a student teacher utilize managerial rules, routines, and transitions to create and maintain a safe and effective learning environment. ☐ ☐

6. Specific instructions that can enable a student teacher implement strategies to help learners demonstrate responsible personal and social behaviors in a productive learning environment. ☐ ☐

5) Impact on Student Learning

Does the curriculum include **YES** **NO**

1. Specific instructions that can enable a student teacher select or create appropriate assessments that will measure learner's achievement of goals and objectives. ☐ ☐

2. Specific instructions that can enable a student teacher use appropriate assessments to evaluate learners' learning before, during, and after instruction. ☐ ☐

3. Specific instructions that can enable a student teacher utilize the reflective cycle to implement change in teacher performance, learners' learning, and/or instructional goals and decisions. ☐ ☐

6) Professionalism

Does the curriculum include	YES	NO
1. Specific instructions that can enable a student teacher demonstrate behaviors that are consistent with the belief that all learners can become physically educated individuals.	☐	☐
2. Specific instructions that can enable a student teacher participate in activities that enhance collaboration and lead to professional growth and development.	☐	☐
3. Specific instructions that can enable a student teacher demonstrate behaviors that are consistent with the professional ethics of highly qualified teachers.	☐	☐
4. Specific instructions that can enable a student teacher communicate in ways that convey respect and sensitivity	☐	☐

Any other additional information

Appendix C: INTERVIEW GUIDE FOR PHYSICAL EDUCATION TEACHER TRAINER

Thank you for agreeing to be interviewed for my research about University Physical Education Teacher Training in Uganda. I want to find out more Physical Education Teacher Training in Ugandan Universities as one of the key areas that contribute to effectiveness of PE teachers in our secondary school. Since you are a PE teacher trainer, I see you to be in the best position to share with me about this area. The interview will take less than 30minutes and all responses will be kept confidential. Are you ready to respond to some questions about this topic at this time?

Let us look at the training of PE teachers in this University;

1. For how long have you been part of the PE department in this University?.....
2. Which students qualify to be admitted for PETT in this university?.....
3. What are the PETT intake trends for the five recent years in this University?.....
4. Does this University accept students with special needs for Apett programme?.....
5. What does this University offer to a PE students teacher?.....
6. Does the department have adequate resources and materials to effectively teach all the students admitted for PETT programme? Prompts
    - Facilities.....
    - Equipments.....
    - A Human resources (teacher trainers and support staff; number and qualifications)
7. With respect to PE, how is staff development provided?.....
8. Tell me about the assessments/evaluation system you use to check for students' acquisition of knowledge, skill and attitudes expected of a PE teacher.....

9. Could you comment on the pass and failure rate in relation to completion of the course by students within the specified course duration?.....
10. How do you know that your graduates are meeting the needs for PE teachers in secondary schools in Uganda?.....
11. What do you see as the strength of this University in training PE teachers? What contributes to these strengths?.....
12. How often do you interact with your in-service graduates? What kind of feedback do you get from the in-service graduates?.....
13. What would it take for this university to have the best PETT programme in Uganda and even beyond?

    .....
14. Is there anything else you would like to add?.....
15. Is there anything I should have asked, but didn't? Have we missed anything?.....

I thank you for your time

Appendix D: QUESTIONNAIREFOR SECONDARY SCHOOL PE TEACHER

Information gathered through this questionnaire will be used as part of research into university physical education teacher training programmes and perceived competence of graduate secondary school physical Education teachers and you being a graduate PE teacher, I would like you to share some information in relation to PETT. Responding to this questionnaire will take less than 30minutes and all responses will be kept confidential. This means that your responses will only be used for only research purposes and I will ensure that any information I include in my report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to.

PART 1: BACKGROUND INFORMATION

1.1. Age: (*Tick appropriate*
20 - 29 ☐ 30-39 ☐ 40 and above ☐

1.2. Gender: Male ☐ Female ☐

1.3. From which institution did you graduate?
Makerere University ☐

Kyambogo University ☐

1.4. For how long have you taught physical Education?
……..

PART 2: COMPETENCES GAINED DURING PETT IN THE UNIVERSITY

As a secondary school PE teacher, are you satisfied that your PETT Programme effectively enabled you to achieve the following competences? (Please tick the corresponding answer by rating it on a scale of 1 to 4, where **1**= Very dissatisfied,**2**= Dissatisfied,**3**=Neutral,**4**= Satisfied, 5= Very satisfied)

A. INSTRUCTIONAL PLANNING

Acquired competence	**1**	**2**	**3**	**4**	**5**
Preparing a written lesson plan that demonstrates planning to achieve student learning.					
Making a Plan that is based on lesson objectives and related national education standards.					
Able to clearly isolate and state the skill/concepts to be learnt at the beginning of the lesson.					
Putting objective in context appropriate to the student learning level.					
Able to state Objectives smartly					
All available class time is used for learning and not for setting up/getting out of equipment.					
Able to allocate and create enough equipment to ensure maximum participation and student learning.					
Able to make the teaching space free from clutter, unused equipment and other safety hazards.					
Able to organize Activities in a way that minimizes the chance of injury.					
Able to make Instruction progressive and sequential for diverse student needs, with special accommodations and/or modifications for student exceptionalities;					

B. INSTRUCTIONAL PRESENTATION

Acquired competence	**1**	**2**	**3**	**4**	**5**
Able to ensure that effective warm-ups given.					
Can ensure that Instruction time is minimized so that learning time is maximized.					
Able to provide appropriate Rules/strategies throughout the class					
Can ensure that Drills and activities are clearly understood by the students.					
Learnt sufficiently ways of providing Effective demonstrations.					
Able to provide Appropriate cues for skill development.					
Able to connect Skill to prior and future skill development.					
Able to provide sufficient time of Practice, observed and offer corrective feedback.					
Able to provide Drills and lead-up activities that are appropriate to the development of the skill/concept.					
Leant adequately to make Students appear motivated and willing to take attempts on new skills.					
Able to make pace of the instructed activities keep the students engaged.					
All students challenged in the lesson					
Able to ensure that Attendance is efficiently checked.					

C. ASSESSMENT OF LEARNING

	1	**2**	**3**	**4**	**5**
Able to monitor students' understanding and progress;					
Able to Use appropriate assessments before, during, and after instruction.					
Able to use Multiple assessment strategies and tools to monitor student learning					
Able to make Students make self-assessment and be aware of their own progress toward learning goals					
Able to document Student progressing a retrievable record-keeping system					

PART 3: ADDITIONAL INFORMATION

Is there some areas of knowledge or skills that you did not learn from your undergraduate Physical Education Teacher Training programme, but now wish you had learnt? (*Tick appropriate box*

YES ☐ NO ☐

If yes, motion such areas of knowledge or skills.

……
……
……
……

Thank you for your time

Appendix E: WORKPLAN

Activity / Month	Dec 2018-Feb 2019			March 2019-May 2019			June 2019-May 2019			Sept 2019-May 2019			Dec 2019
	D	J	F	M	A	M	J	J	A	S	O	N	D
1. Restructuring chapter I: introduction													
2. Review of related literature; Chapter 2													
3. Restructuring chapter 3: Methodology													
4. Designing research tools													
5. Presentation and discussion of proposal at department level													
6. Presentation and discussion of proposal at faculty level													
7. Data collection													
8. Interpretation and analysis of results													
9. Completion of thesis													
10. Defence													
11. Making corrections in thesis													
12. Submission of final thesis													
13. Viva													
14. Graduation													