

Teacher Trainees' Perceptions Of The 21st Century Life Skills Developed As They Pursue Undergraduate Teacher Education Programs In Uganda: A Case Study Of Makerere University.

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Abstract: Very little information is known about teacher trainees' perceptions of the life skills they develop while they are pursuing their undergraduate studies in the two teacher education programs of Makerere University. 112 teacher trainees from the 2015/2016 intake of Bachelor of Arts with Education and Bachelor of Science with Education participated in this study. The objectives were to find out the teacher trainees' perceptions of the life skills they acquire and develop as they pursue studies in their respective teacher education programs. Secondly, to find out teacher trainees' perceptions of the life skills they do not develop as they pursue studies in their respective teacher education programs. Open and close ended Questionnaires were used to collect data. Results show that teacher trainees perceive studies in teacher education programs help them acquire communication skills, leadership skills, time management, research skills, analytical skills, decision making skills, problem-solving skills among others in various ways. However, data revealed that teacher trainees at the end of the three years of their programs still perceived they were having underdeveloped life skills such as skills in operating different digital technologies in today's classroom, critical thinking, writing professional curriculum vitae, entrepreneurship as well as interpersonal skills. Researchers recommend that teacher educators need to embrace the use of modern digital technologies in their lectures as well as employ teaching methods and assessment that promote the various life skills like digital literacy, critical thinking and interpersonal skills that were reported to be still underdeveloped.

Key words: Development of Life skills, Perceptions, Teacher Education Programs, Teacher trainees.

Introduction

In order one to be considered an effective teacher in our present times, one must have the ability to equip his or her students with the skills that can enable them to be successful and productive citizens in the digital economy we live in today (Kivunja, 2014). To realize this, Kivunja (2014) continues to state that it is essential for teachers to teach their learners not just the traditional core subjects but also the sets of skills most in demand in the 21st century. The skills and competences needed in the 21st century include: communication skills, thinking skills and problem solving skills, team workforce, lifelong learning and information management, entrepreneurship skills, ethics, morals and professionalism, and leadership skills (Pachauri & Yadav, 2014). Others are; self-awareness, self-esteem, and assertiveness, coping with emotions and coping with stress or generally the intrapersonal skills (MOES, 2011 and Bwayo, 2014). Unfortunately, quite a number of individuals in Uganda complete their education journey from primary to university when they have not developed the ability to deal with the challenges and demands of life as anticipated (Bwayo, 2014). To achieve

an education system that can be in position to prepare its citizens with the highly treasured 21st century competences, requires that teacher training institutions have to develop the capacity to equip teacher trainees with these relevant skills for their onward integration into their classrooms once they start on their career in teaching (AACTE, 2010). Consequently, this requires that teaching and learning as well as the curriculum offered in these institutions are capable of providing some knowledge and skills for teachers in both conceptual and relevant 21st century life skills geared at enhancement of performance in the hard skills (Pachauri & Yadav, 2014). Unfortunately, little information is available about the extent to which teacher educators at Makerere University strive to see to it that teacher trainees graduate with the relevant life skills. Consequently, this study was conducted to establish from the teacher trainees their perceptions of the kind of skills they think they acquire or improve upon as they pursue studies in their respective teacher education programs at the university.

Context of the study

Makerere University is a premier university in Uganda and consequently the leader of university education in the country. Among other courses offered at this university is Teacher education. Teacher education courses at this university are offered to teacher trainees by the School of Education while subject content is provided by the faculties of Arts, Science, School of Psychology and Faculty of Economics and Management (Kagoda & Sentongo, 2015). The professional courses offered to teacher trainees by the school of Education are from three departments namely; Foundations and Curriculum Studies, The department of Humanities and Languages Education and the department of Science, Technical and Vocational Education (Kagoda & Sentongo, 2015). Kagoda and Sentongo (2015) report that the number of teacher trainees in the period 2000-2010 was around 4500, however by the time of this study this population had reduced to around 3000 teacher trainees from first to third year. Each year by the time of the study had an average of 1000 teacher trainees. Teacher education at School of Education is targeted at secondary school teachers in both arts and science subjects. It is offered at both bachelors and at post graduate levels. In the former, it is offered as either Bachelor of Arts with Education or Bachelor of Science with Education while in the latter it is offered as a Post Graduate Diploma in Education (PGDE) to graduates whose undergraduate degrees had two teaching subjects with eligibility of enrollment in the register of teachers at the Ministry of Education and Sports. Undergraduate Teacher trainees study for a period of three academic years while PGDE study for one academic year. The Department of Foundations and Curriculum Studies as well as Organizational and Educational Psychology of the School of Psychology teaches general education professional course units offered to each and every teacher trainee in the university. The department of Humanities and Languages Education teaches specialized pedagogies for each of the subjects offered to teacher trainees offering the Bachelor of Arts with Education program. The subjects under study are: History, Geography, Religious Studies with two strands of Islamic Religious Education and Christian Religious Education, Economics and Languages i.e. Luganda, English Language and Literature, French, Kiswahili, Arabic and German. The department of Science, Technical and Vocational Education offers both content and Pedagogical knowledge to teacher trainees offering subjects in the Bachelor of Science with Education. The subjects in this department include: Biology, Chemistry, Mathematics, Physical Education and Information and Communication Technology. Finally, there is a coordinating office for School practice. School practice is an internship program where all teacher trainees in second and third years of study are attached to schools to apply their theory into real life practice in schools (Kagoda & Sentongo, 2015).

Statement of the Problem

Success in the teaching profession today requires possession of relevant 21st century life skills. However, available reports indicate that whereas teacher trainees by the time they go for their second year school practice are sufficiently equipped with subject content, school administrators as well as practicing teachers believe that a

majority are still wanting in competences related to team work, cooperativeness with practicing teachers, communication skills and problem – solving (Kagoda & Sentongo, 2015). However, this perspective did not take care of teacher trainees' perceptions of what kind of skills and competences they possess by the time they go for second year school practice. Consequently, the study was interested in assessing the 2017/2018 third year teacher trainees' perceptions of the nature of the 21st century competences they acquired or improved upon as a result of pursuing their respective teacher education programs.

Main Purpose of the Study

To assess the 2017/2018 third year teacher trainees' perceptions of the nature of the 21st century competences they acquired or improved upon as a result of pursuing studies in their teacher respective teacher education programs.

Objectives of the Study

The study addressed the following objectives:

1. Assess the teacher trainees' perceptions of the life skills they acquire and develop as they pursue lectures in their respective teacher education programs.
2. Examine teacher trainees' perceptions of the life skills they do not develop as they pursue studies in their respective teacher education programs.

Methodology

This was a mixed study backed up by data collected by both qualitative and quantitative data collection instruments focusing on teacher trainees' perceptions of the extent to which they develop the 21st century life skills during the course of their studies. The study population was a population of 954 registered teacher trainees in their second semester of their third year. Specifically, the study sample consisted of 112 teacher trainees in the cohort of 2015/2016 – 2017/2018 offering Bachelor of Arts with Education and Bachelor of Science with Education of Makerere University participated in this study. Both close ended questionnaires as well as four focus group discussions were used to get teacher trainees' perceptions about the kind of 21st century life skills that they think they developed during the course of their studies. The questionnaires were administered by four research assistants, one was in charge of Bachelor of Science with Education, the other in English Language and Literature education students, one for general humanities education on the day program and last one was in charge of those offering education on the evening program.

Presentation and Discussion of Findings

The main purpose of the study was to find out perceptions of teacher trainees about the kind of life skills they develop in the three years they spend pursuing studies in Bachelor of Science with Education and Bachelor of Arts with Education of Makerere University. Data presented in Table 1 is based on the life skills variables teacher trainees were expected to rate in their perception as to whether they were in position to develop them during the course of their studies in their respective teacher education programs.

Table 1 below presents the 2017/2018 third year teacher trainees' views on the extent to which teacher education pedagogy at Makerere University developed in them the relevant 21st century life Skills

Relevant 21 st Century Life Skill	Strongly Disagree (%)	Disagree (%)	Not Sure (%)	Agree (%)	Strongly Agree (%)
Capacity for analysis and synthesis	22.1	6.5	5.2	32.5	37.7
Capacity to adapt to new situations	28.0	6.7	8.0	26.7	30.7
Capacity to learn	28.6		5.2	37.7	28.6
Planning and time management		3.3	8.2	42.6	45.9
Will to Succeed	20.8	2.6	7.8	26.0	42.9
Concern for Quality	26.0	3.9	7.8	33.8	28.6
Ethical Commitment	23.4	2.6	14.3	28.6	31.2
Initiative and entrepreneurial spirit	33.8	6.5	5.2	24.7	29.9
Ability to work autonomously	24.7	6.5	10.4	36.4	22.1
Ability to work in an international context	29.9	6.5	13.0	24.7	26.0
Appreciation of diversity and multiculturality	29.9	3.9	10.4	26.0	29.9
Ability to work in an interdisciplinary team	24.7	7.8	7.8	27.3	32.5
Leadership	27.3	2.6	3.9	28.6	37.7
Interpersonal skills	26.0	5.2	5.2	27.3	36.4
Teamwork	25.0	1.3	2.6	17.1	53.9
Decision making	24.7		9.1	31.2	35.1
Problem solving	23.4	7.8	3.9	26.0	39.0
Capacity for generating new ideas (creativity)	26.3	3.9	2.6	27.6	39.5
Critical and self – critical abilities	27.3	1.3	13.0	36.4	22.1
Information management skills (ability to retrieve and analyze information from different sources)	26.0	1.3	2.6	41.6	28.6
Elementary computing skills	16.4	13.1	9.8	34.4	26.3
Oral and written communication in the official language of instruction	5.1	3.4	5.1	33.9	52.5
Research Skills	22.1	7.8	7.8	24.7	37.7

When participants were asked to rate the extent to which pursuing studies in teacher education programs of Makerere University develop the relevant 21st century skills among teacher trainees, it was established that the life skill that is highly developed is planning and time management. 88.5% of the participants believed they had developed this skill. They attributed this to the many course units they offer and from different departments as well as faculties. The too many course units offered by different departments make some of them to clash on the time table consequently, one has to have good planning of which lecture to attend first, for how long and how to balance those colliding lectures from the different faculties. Worst of all, these faculties are almost a kilometer away from each other, thus to keep time and meet a lecture from one faculty when you are from the other one you need to walk very fast or plan your time so well. For example, a teacher trainee offering History had this to lament; 'Studying Education at Makerere University is a punishment, just imagine starting your lectures at 7:00AM to 9:00AM at School of Education and yet at 8:00 AM there is a lecture in History at the faculty of Arts, how do you expect me to be in the two lectures at the same time and yet they are in different places?' In another focus group discussion, one of the participants stated that he learnt to manage time as a result of the second year school practice. This teacher trainee alluded to the fact that in the school he went to for school practice, the school management was too strict on late coming to school as well as to classes or lessons as seen in his expression; 'During school practice we had a very strict management. We were expected at school as early as 6:30 AM, if you could come one minute late, you would find the arrival book removed from the gate and taken to the Deputy in charge of Administration's office. And if you fail to register your arrival for at least three times in a week, you would be summoned to School Management disciplinary committee to explain why you are not serious with your work.' Within the same focus group another participant interjected and alluded to the fact in the school she went to for School practice, it was a taboo even to go five minutes late into the lesson. She states that; 'For me where I was for SP practicing teachers' salaries would always be deducted by 10,000 Ugandan shillings for any lesson they dodge without clearance from the Director of Studies' office or in case they went five minutes late into the lesson and such incidents were reported by class monitors in the lesson observation forms. Even us on school we were not exempted, as any delay by five minutes to your lesson, you would find another already occupying your learners. The second highly rated skill developed by teacher education is communication skills. 86.4% of the participants were in agreement that teacher education pedagogy enables teacher trainees develop relevant oral and written communication skills. Those who participated in the focus group discussion highlighted that the nature of teacher education at Makerere University enabled them to develop communication skills like, 'ability to communicate in the official language of instruction, presentation skills, confidential expressions out to the world, oratory skills, writing skills, public speech/ speaking, speaking skills, listening skills, Organization skills by organizing content, Audibility, Pronunciation, Public communication skills, Report

writing and arrangement, Proposal and report writing' Thirdly, the study established that 71% of the study participants believe they have developed teamwork skills. They argued out that the nature of teacher education pedagogy at Makerere University is organized in such a way that teacher trainees have to have work in teams. They gave examples related to group work assignments that they are always engaged in either within lecture rooms or on study projects that they have to research on as a team and write reports for subsequent submission for assessment. Consequently, they have to assign themselves tasks and ensure that they fulfil their assignments not to fail their teammates. 62.4% and 70.2% of the teacher trainees believed they had developed research skills and information management skills respectively. The research skills they mentioned to have developed are; 'Collecting data during field work excursions in Geography, Report writing and arrangement, Research conducting skills, Skills in proposal writing, Basic knowledge in research, and Proposal writing.' This percentage is slightly above the average because most teacher trainees offering Bachelor of Arts with Education only study research methods and do not go on to conduct research as part of their graduation requirements. Academic research that leads to writing of theses is a preserve for those offering any language subject as well as those in Bachelor of science with Education. Therefore, the majority of research that teacher trainees engage in as they pursue their studies are for purposes of collecting data to assist them in writing their coursework assignments. On the other hand, information management skills that were considered to have developed are the ability to retrieve and analyze information from different sources. An ability they have acquired through their active engagement in writing assignments and presenting in lectures as well as preparing lesson notes when they went for second year practice. In line with research and information management skills, 70.2% of the study participants were of the view that they had developed the capacity of analysis and synthesis. They argued that some course units offered at the university like Educational Technology made them develop this skill. One participant stated that, 'I can't remember the number of times I was chased by the course facilitators for submitting substandard work in Education Technology until such a time that I had to carefully analyze what is taught in my subject areas to come up with an appropriate teaching aid that was finally assessed with a very good mark. Had I not been pushed to the wall, possibly I would not be in position to add up the different aspects of my subject to produce a relevant teaching aid.' 68.9% of the participants perceive that teacher education programs have enabled to develop the skill of the will to succeed. This skill was attributed to aspects of the desire to finish with a good class of their degree as well as scoring highly in the course work assignments. This skill, teacher trainees stated was developed through words of encouragement from course facilitators as well as fellow teacher trainees. One participant in the focus group discussion stated that, 'When I was in first year, I was not too much bothered about my performance until when one of the lecturers in our second year clarified the need to work hard and have a good class of degree so as to be eligible to pursue post graduate studies or work as an academic staff at public

universities in Uganda. From that on, I decided to work and improve my performance.' Others attributed this skill to their classmates especially when they are given group assignments. They stated that there are some groups that do not promote mediocrity, to an extent if you do not exhibit hard work in some of these groups they do not work with you. Capacity for generating new ideas (creativity) is believed to be developed by 67.1% by the various teacher education programs at the university. Areas where these teacher trainees are of the view that helped them to develop this skill include the assignment that required them to develop appropriate teaching aids in Educational Technology, designing appropriate test instruments in Evaluation of Instruction, and writing original poems, novella and drama series in the various language subjects as a coursework requirement for the Creative writing courses in these subjects. 66.3% of the participants believe that they have developed skills in leadership, decision-making, and the capacity to learn. With specific reference to leadership skills, teacher trainees argued that the various activities in teacher education programs at Makerere University have enabled them to develop management, organization skills, mobilization of fellow individuals, administrative and managerial skills. To support their claim, they cited examples of being leaders in group projects as well as subject coordinators where they coordinate lecturers and learners in the various course units offered in each of the subjects. They also cited various subject based associations like Makerere Education Students Association (MESA), Makerere University Biology Students Association, Makerere Luganda Students Association and Makerere English Language and Literature Students Association among others to be other avenues through which they develop the various leadership skills like mobilization and organization skills. For the case of the ability to use the various digital technologies that are available in today's classrooms, only 60.7% of the participants believe that as a result of taking studies in teacher education programs, they were in position to develop elementary computing skills. The computer skills teacher trainees reported to have developed while pursuing their studies at the university were; 'Skills in the basics of using software in remote sensing, Skills in dealing with Arc map, and Arc catalog in GIS'. Others reported they can type their own coursework, submit it as email attachment to their lecturers for assessment and some would equally make power point presentations either as individual students or working in groups. The self-administered questionnaire also had other life skills variables that were responded to in the close ended questions but were not substantiated by the focus group discussions. The percentages allocated against each variable indicate the extent to which teacher trainees believe they have developed such life skills in the three years they were pursuing their respective teacher education programs: Problem solving 65%, Interpersonal skills 63.7%, Concern for quality 62.4%, and ability to work in an interdisciplinary team 59.8%. Other skills are Ethical commitment 59.8%, Critical and self-critical abilities 58.5%, Ability to work autonomously 58.5%, and Capacity to adapt to new situations at 57.7%. The final category of life skills was appreciation of diversity and multiculturalism at 55.9%, Initiative and entrepreneurial

spirit at 54.6% and ability to work in an international context 50.7%. Finally, the focus group discussion revealed that teacher education programs at Makerere University helped them to develop life skills like Self-esteem and belief where they argued that they developed confidence in presence of fellow students as well as counselling and guidance. The former was attributed to group discussions and presentations during lecture proceedings whereas the latter was attributed to lectures in the course unit on guidance and counselling offered to them by the Department of Organizational and Educational Psychology.

Conclusions

The above findings suggest that there are basically two sets of life skills developed by the teacher education programs of Makerere University. These are time management and effective communication skills rated to be developed at 88.5% and 86.4% respectively. These are followed by teamwork, information management skills, plus capacity for analysis and synthesis both rated to be developed at 70.2%. However, there are quite a number of life skills that Makerere University have to put on emphasis in their teacher education programs. These are: will to succeed, leadership, decision-making, and the capacity to learn, creativity, research skills, and digital literacy. Others are; Problem solving, Interpersonal skills, Concern for quality, and ability to work in an interdisciplinary team. Other skills are Ethical commitment, Critical and self-critical abilities, Ability to work autonomously, and Capacity to adapt to new situations. The final category of life skills that are least developed are appreciation of diversity and multiculturalism at 55.9%, Initiative and entrepreneurial spirit at 54.6% and ability to work in an international context 50.7%. Generally, the study has revealed that teacher education programs of Makerere University have not yet put in a lot of effort to develop the relevant life skills for the 21st century.

Implications for Teacher Education

This study has a number of implications to teacher education programs at Makerere University. Among others are establishing a teacher education pedagogy that integrates life skills like research, information management, team work, critical thinking, decision making and problem solving. Secondly, teacher educators need to embrace life skills in assessment of various course units offered by the university to teacher trainees this could include use of assessment tools that tap high order thinking skills of teacher trainees. Finally, it is equally high time that digital literacy is emphasized among all teacher trainees and not leave it to be a preserve for those offering Geography. As a starting point, university management should ensure that all lecture rooms are equipped with ICT technologies for use by teacher educators as well as teacher trainees during the teaching and learning process.

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Author Profile

Alfred Buluma received a Bachelor of Arts with Education from Kyambogo University (Uganda) in 2005, a Master's in Education with specialization in Curriculum Studies from Makerere University (Uganda) in 2014 and a Postgraduate Diploma in Online Teaching from University of Agder (Norway) in 2018. I am currently pursuing my PhD in Education with particular interest in the role of Teacher Education Pedagogy in Developing 21st Century Competences among Teacher trainees in Uganda.

