Role Models and Life Histories of Teacher Trainers as Tools for Effective Teacher Education: A Case for Geography Teacher Trainers in Uganda

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Abstract Two hundred (310) undergraduate and postgraduate students participated in this study. The participants were requested to write down the best and worst teachers in their life right from primary to high school which is 14 years of schooling. They had to identify qualities that made that teacher good/and role model and likely to influence their development as geography teachers. Results show that students value and love teachers that are intelligent and have good knowledge of the subject matter, approachable, morally upright, approachable/accessible, honest and guides the students, smartly dressed and presentable. They particularly liked geography teachers that used the environment round the school as a laboratory making the subject real and relevant, used fieldwork as a method of teaching, use of maps, pictures, graphs regularly in class. They particularly hated teachers who sexually abused students, discriminated against dull students, had no teaching aids, didn't mark books, consequently no feedback, no fieldwork in Geography. Through discussions and peer teaching teacher trainees demonstrated their creativity through the teaching methods and materials they used. They promised to continue developing alternative teaching methods and materials for their own professional career development

Keywords; Life histories, Role models, Teacher Training, Geography

Introduction

Learning to teach is a matter of learning the technical skills which enable individuals to function effectively in the education system (Elliot 1993). Effective teaching requires knowledge and understanding of the subject the student teacher is going to teach, and learning the curriculum. Teaching students implies exposing the individuals to knowledge and skills as well as practical experience as a basis for professional learning. Training a teacher is collaboration between academics and practitioners in the field. People learn how to teach from watching and imitating others (observation). They learn from experience and reflection (Stuart et. al., 2009; Korthagen et.al., 2006; Tailor et. al., 1997). Teachers also learn through practice, acquiring knowledge and reflecting on their experience (Elliot, 1993; Tailor 1997). Learning about teaching is also enhanced through student teachers doing research on their own practice. This study was based on the constructionist theory of learning which involves students constructing knowledge and skills through the process of reflecting on their past experiences (life histories) and their past and present teachers whom they regard as role models (Vygotsky, 1986). The research focused on the training of Geography teachers in the Department of Humanities and Languages at the School of Education, Makerere University.

A role model, according to Kaahwa (2009), is a person who has qualities that one would like to have. The role model affects a person in such a way that one would be a better person. Role models may be people holding responsible positions in society or may be working people. Teachers acquire explicit images of what it means to be a teacher and use these guidelines to their own actions, often without realizing where the images come from (Stuart et. al., 2009). The society also looks up to the teacher as a role model, a good instructor, disciplinarian, an expert on everything or as a wise counselor (Stuart et. al., 2009). Some teacher trainees remember some teachers very clearly, both good and bad. Such memories may be part of the motivation for one to become a teacher - to copy an admired teacher - role model (Calderhead and Sharrock (1997). Teachers in society provide leadership, are useful in explaining government policies and documents written in foreign and technical language. Teachers are also at times leaders of social movements like environmental activities, are formal and non formal educationists. These are attributes which make their students look up to them as role models. Pre-service teachers' first role models are their own teachers when they were pupils. Life histories are experiences of family of learning and being in school. It is these

experiences that mould the educational thinking of present teachers. This includes the many varied experiences the pre-service teachers come with to teacher education colleges (Knowles and Holt-Reynolds 1997, Stuart et. al., 2009). The concept "life histories" is sometimes referred to as biographies: "these are experiences of 12 years or more, observing and participating in their learning at school as well as in University classrooms introduce a tension unique to teacher education" page 88. Personal histories are an evidence of accumulation, integration, editing and synthesis across the actors, actions and consequences of multiple experiences to form a cohesive and coherent belief system (Knowles et.al 1997: Ozgun-Koca et.al 2006). Life histories provide an essential foundation for pre-service teachers' knowledge of classrooms, teachers, students and instructions which they use to think about the values of ideas they encounter as they develop knowledge about teaching (Godson 1989)

This study focused on the training of geography teachers for secondary schools. Ozgun –Koca et.al (2006) argues that teachers' pre-service beliefs about their subject area and its teaching is shaped by their experience as students. This means knowledge of the nature and scope of geography, in this case, the subject specific content knowledge. In the case of Uganda, pre-service teachers bring with them experiences as learners in geography classes from primary school where the subject is encountered as a component of social studies, through secondary school to University. As a result of this experience, strong beliefs about the subject are formed. These experiences influence the way they think through the teaching process, their choice of the teaching career and ways in which they are involved in professional development (Ozgun-Koca et.al 2006; Godson, 1989).

Values of Using Role Models and Life History in Training Teachers

Researchers in teacher education e.g. Knowles and Holt – Reynold 1997; Claderhead and Sharrock 1997; Godson 1989; Korthagen et.al 2006 have identified some of the values of using life histories and role models in training teachers. Below is a list of some the values that have been identified:-

- It is a window into pre-service teachers' perspectives about themselves. It exposes their needs about the process of becoming teachers.
- It reveals the difficulties that prospective teachers experience.
- It is a tool for gauging the effectiveness and relevance of the teacher trainers' instructions and programmes.
- It develops pre-service thinking and writing skills.
- By sharing their life histories, qualities of their role models, teamwork and trust, relationships are developed among the pre-service teachers.
- It is a foundation for action research among pre-service teachers and teacher educators.
- Pre-service teachers will develop a reflective approach to their own teaching based on well thought out personal theories.
- This approach is an essential tool for linking practice and theory (Oztal et al 2009, Tailor 1997)
- Life histories act as a filter by which pre-service teachers judge the work of new ideas, theories and practices as they are presented to them in class. Pre-service teachers lack contemporary classroom experiences as teachers and normally rely on former experiences as students. They use this to project how they will behave as teachers in future.
- It helps teacher educators identify individual differences in the teacher trainees. It helps teacher educators clarify teacher trainees' attitudes/ beliefs and what they bring with them to the class.

Theoretical Framework

This study was based on the constructivist theory of learning as defined by the Vision project (2004):

" It emphasizes the importance of knowing the students' cognitive level and misconceptions about what it is to be learnt. It is based on the view that learning is personal exploration and that the teacher must come to some understanding of observation, lines of enquiry and personal cognitive strategies by the students. Most approaches in cognitive of the individual determine how new information is systematically selected, interpreted and finally incorporated into the existing cognitive structure. Constructivist perspectives also suggest that students understand themselves and their surroundings, developing tentative models and individual strategies for problem solving. The recognition of existence of alternative frameworks suggest a conception of the learning process as a conceptual change in which the intuitive misconceptions of students must be replaced, say scientific formulations" (pp 20)

Ozgun-Koca et al (2006) and Tailor (1997) in a similar way emphasize the importance of the constructivist theory of learning in the training of teachers. They argue that it is a learner-centered environment in which past experience of the pre-service teacher is respected. The learners construct their own knowledge by anchoring new information to pre-existing knowledge. Stuart et al (2009) further states that some of this knowledge comes from their own personal life histories, the rest from formal training courses, the schools they teach at and from the wider social and cultural context in which they live. This construction of knowledge is interactive, inductive and collaborative. The teacher educator acts as a facilitator, provides pre-service teachers with a variety of experiences from which learning is built. The process maximizes social interactions between the learners so that they can negotiate meaning to what is exposed to them.

In constructivist teacher education programs there is less emphasis on skills and more on personal knowledge and on thinking skills. Constructivist teaching methods include role plays, debates, reflective journal writings, etc. which are most effective in influencing behaviour change (Mugimu 2009)

Context of Geography Teacher Education at the School of Education

Geography as a teaching subject in the School Education is offered to both Arts and Science students from the faculties of Arts, Science and Faulty of Economics & Management at Makerere University. The Geography department in the faculty of Arts is fully staffed and offers many courses in both human and physical geography. In the faculty of Arts, Education students are normally advised to study content courses which they are likely to teach in secondary schools likely geomorphology, climatology regional papers of Uganda, East Africa and others like Research and practical geography. Education students study geography along with another teaching subject such as Economics, History, Religious Studies, and Biology, in the faculties where they are offered.

In the School of Education, geography teacher trainees are offered professional education courses like: Education Psychology, Foundations of Education and Management and Curriculum and Teaching Media courses. Students in their second and third years of study undertake school practice at secondary schools in Uganda. It is important to note that the majority of professors and lecturers in the Geography department in the faculty of Arts are not necessarily professional teachers; some of them lack a teaching certificate. It is the School of Education which is staffed with lecturers and professors who as a requirement must have a teaching certificate.

As a result of liberalization and privatization of education in Uganda, the numbers of both day and evening students increased four times between 2000 and 2010. As a consequence of this, the classes became larger with typical class-sizes of 200 – 300 students for some courses. The School of Education infrastructure was built in the 1930s to accommodate 20 - 40 students (Kagoda 2011). This has resulted in

congestion and lack of adequate teaching materials. Lectures are conducted in dinning halls that have the capacity to accommodate such large classes. This uncontrolled expansion was not matched with adequate funding and well qualified teacher educators. Geography is a very dynamic practical subject which calls for a lot of teaching materials and use of a variety of teaching methods (Benoit, 1982). Large classes render it impossible to use a variety of teaching methods and subsequently only the lecture method is used by lecturers. Teachers in secondary schools graduating from this kind of education system are likely to teach/imitate the way they were trained (Kagoda, 2011).

Statement of the Problem

A quality geography teacher is a product of quality theoretical and practical knowledge and skills the teacher gets exposed to as a trainee while at the University. The School of Education lecturers including geography lecturers still use the traditional methods of training teachers. This old paradigm assumes knowledge is transferred from the instructor to the student. The students are regarded as passive vessels to be filled with knowledge and skills. The instructors believe that their duty is to classify and sort out students. This results in an impersonal relationship between instructors and teacher trainees. Learning turns out to be individualistic and very competitive. Since the instructor is an "expert", banking/teaching methods dominate in the lecture rooms. Teacher trainees have to memorize what is given to them and then reproduce it in tests/examinations.

This study critically explores how a new paradigm of teacher education can be integrated in the current geography teacher education. The new paradigm assumes that knowledge is constructed by both teacher trainees and instructors. Teacher trainees are constructors, discoverers and transformers of knowledge. The instructor's role is to develop the competences and talents of teacher trainees: a paradigm that encourages the use of cooperative learning and team work among students and instructors; use of reflective journals/narratives, dialogue and constructivist approach to teacher education (Freire, 1972; Nevin et. al., 1995). This approach creates a learning environment which is diverse in culture and community. It develop self esteem making it relevant to the teacher trainees.

Purpose

The main purpose of this study was to explore the use of role models and life histories in the training of geography teachers.

Objectives

- 1. To explore the personal experiences and role models of the geography teacher trainees.
- 2. To discuss and think through teacher trainees attitudes and beliefs in light of the contemporary context of theory and practice of teaching.
- 3. To guide students try out new classroom practices and experiment with new behaviour and new methods.

Methodology

This study was carried in the School of Education, Makerere University in the years 2007 – 2009. Undergraduate and postgraduate geography teacher trainees participated in this study. The method employed to collect data was purely qualitative using narratives written by teacher trainees, class discussions, class presentations and peer teaching. The researcher taught two groups of undergraduate teacher trainees and two groups pursuing a postgraduate diploma in education. A total of 250 undergraduates and 60 postgraduate students participated in the study.

Students writing about their experiences (life history) provides a window into their perspectives about themselves and their needs. It revealed the Teacher Trainees' (T.Ts) anxiety regarding the process of becoming teachers and the difficulties they face. The teachers were able to write down their memories, attitudes, beliefs, their personality and assumptions without fear. This helped the researcher to identify gaps and understand what needs to be done to help them become teachers. Class discussions were used to deliberately challenge the T.Ts to reflect on their attitudes, assumptions, beliefs and preconceptions about becoming a teacher and the teaching career as a whole Class presentation helped me to identify individual students' communication skills, public speaking skills, mannerism, the English language grammar etc. In peer teaching, the teacher trainees either worked as individuals or as a group of two. The T.Ts made lesson plans with objectives, teaching methods, teaching aids and references etc as instructed. Each T.T was given thirty minutes to present the lesson to their peers on a topic of their choice. Other T.Ts pretended to be students of a class as instructed. Information was collected through observation of the lesson, discussion/critic of the lesson by peers, the T.Ts own narration of his/her experience as a teacher, her/his choices as decisions made in the preparation and presentation of the lesson. The researcher observed at least 10 lessons in each of the undergraduate groups (20 in total.) and at least 5 lessons (10 lessons), of the postgraduate classes which tended to be smaller.

Presentation of Data and Discussions

The first objective focused on the personal experiences and the role models of teacher trainees (T.Ts). Listed below are what teacher trainees considered to be attributes of a good teacher (role models):

- Our teacher was knowledgeable, very intelligent in geography content. He used to give us notes.
- The teacher was honest, a guide and counselor. He was cheerful, friendly, kind and sympathetic; inspiring us to work hard.
- He was morally upright, showed authority, competence, decisiveness, energetic, creativity and integrity. He never got involved with mature students.
- He was smart, decently dressed with good shoes.
- He used descent language and commanded respect from the students.
- He interacted with parents which helped him deal with individual problems of students.
- He participated in community activities.
- He worked closely with parents when going for fieldwork.
- Used to work in a team with other teachers.

Since the teacher trainees were asked to reflect on their life from primary, secondary schools and university, the above attributes appear to be general in character. Teachers perform many functions; they are role models even in the community where they live. Teachers who are intelligent, honest, morally upright and approachable are loved by students. Stuart et. al. (2009), however, argues that students may not know why teachers behave the way they do. On that note, the good teacher is also prescribed by society. Society judges a teacher's character which also influences their children's attitude toward a particular teacher. A postgraduate student adds: "in the field of education a teacher is supposed to be a good role model in both eyes of his/her students and the society as a whole". Working closely with parents as well as teaming up with other teachers in the school is what Apple (1995) describes as democratic behaviour in schools. Democracy here means allowing all stakeholders in a school to participate in the running of schools and the children's learning. One of the most important functions of teachers is to be a counselor to the students they teach. They also have a duty to help parents understand the curriculum being followed in schools and how the students can be helped to learn right from their homes.

There were responses made specifically to geography teachers, considered to be their role models.

- The geography teacher used good teaching materials; maps, pictures, graphs, specimen, charts and many others to help us understand.
- He used fieldwork in senior five many times; this helped us develop skills like collecting data through interviewing, observing nature, and drawing sketches.
- She used to do extensive research to be up-to-date using the internet, attending workshops, and conferences.
- Used the environment as a geography laboratory to teach facts. This made geography real. We learnt about soils, swamps, forests and the water bodies.
- Encouraged us to form discussion groups and to carry out extensive research.
- The teacher used a variety of teaching methods, question and answer, chalk and talk, lecture method.
- The teacher encouraged us to join school clubs like environment protection clubs, geography club, wildlife club, debating clubs and many others.

Developing research skills, reading skills, observation skills, recording data and its analysis is very good for geography students. Working in groups is a foundation for cooperative learning where weak students are helped by the sharing of information (Nevin 1995). The T.Ts here experienced geography in its reality by using field work especially in the environment near the school. The T.Ts, however, do not mention geography text books which are up-to-date. Relevant geography text books are rare or unavailable from Ugandan schools even in university. Use of computer/e-learning is limited to a few top schools in the country. At university, there are computer labs but they are not yet used for teaching. It is also interesting to note that the "variety of methods" mentioned are "banking" methods, and this is what they have experienced throughout their life. The severe shortage of teaching materials including text books, the examination oriented systems of education and congestion in lecture rooms renders learner centered methods impossible and time wasting to both teacher educators and T.Ts.

Responses of teacher trainees of teachers regarded as poor role models include:-

- The teachers used to beat us in both primary and secondary schools.
- Inadequate illustrations and teaching aids; for map reading and photographic interpretation, lack of update text books, pamphlets are also outdated with many mistakes. This made geography difficult to us and many hated it.
- Teachers discriminated against dull students in favor of bright ones.
- Teachers were persistently absent; used old outdated notes. Notes were given without explanations.
- Geography teachers were poorly dressed, wore gumboots or bathroom sandals instead of shoes; used to make us clean the chalkboard with handkerchiefs.
- Sex abuse, drunkenness, dishonesty were some of the characteristics of the geography teachers in our schools.
- There are no good books in the book banks at the university. Students reproduce lecture notes in the examinations/tests.
- There are no geography rooms/laboratories in secondary schools. There are no newspapers for students, no computer labs which are easily accessible.
- No marking, no feedback, no corrections, geography teachers go ahead to discourage students about the mathematics in geography.

• The teaching profession is essentially service to the citizens and therefore calls for commitment if one is to be a good geography teacher.

Corporal punishments, although abolished in schools, is secretly used in schools especially if students are not performing to the expected standards. This sometimes makes teachers discriminate against dull students and move on with bright ones. Uganda being one of the poorest twenty five countries in the world, explains why teachers are busy looking for money elsewhere instead of regularly attending to their students (Kagoda, 2011). Geography as a subject of study is poorly conducted in both secondary schools and university as (as mentioned above). The image of a geography teacher and the language used in class also influences the attitudes of teachers toward the subject which appears to be difficult to students. The scientific aspect of geography if not well handled will discourage students. A post graduate diploma student offering geography at a post graduate diploma level adds on; "most geography teachers in secondary schools are not qualified teachers. This causes students not to understand their teaching process. They lack proper handwriting on the blackboard, use lecture method, dress poorly which consequently causes students to fail" Another postgraduate student added; our teachers in secondary and at Makerere University teach their students in an environment which cannot win the attention of the learners. Teachers therefore need to consider the factor of environment when choosing places as classroom and such an environment should not have objects which can attract the attention of the learners.

Those two graduate teacher trainees were already teaching in two different poorly resourced schools and not likely to have well qualified teachers who tend to expensive in terms of salary. Secondly remote schools (far from urban centers) do not normally attract well qualified teachers (Kagoda 2011)

The second objective was to guide teacher trainees discuss and think through their attitudes and beliefs in light of the contemporary contexts of theory and practice of teaching. Students were asked to read aloud their narratives in class after which a discussion of their presentation followed.

Issues Arising out the Discussion Follow Below:

- Students were not aware of the value of learner centered teaching methods. They believed that a teacher who gives team marks to enable them pass examinations is a "good" teacher.
- Fieldwork projects were examinable at a national level (Uganda National Examinations Board UNEB). Some teacher trainees never experienced field work at school but their geography teachers provided them with facts to use in the external examinations. Teacher trainees therefore do not know the value of fieldwork in geography education.
- Teacher trainees believe a good geography teacher is one who completes the UNEB syllabus; that is the examination syllabus.
- Interdisciplinary approach to teaching where similar topics are taught together with teachers from
 other departments is not mentioned by students of mathematics in geography, chemical
 weathering, etc the scientific aspect of geography is difficult for students of geography.
- Use of computer in teaching geography is ignored by all secondary schools even at University.
- Use of role play, debates, drama, music, cross-word puzzles and a variety of teaching aids made by a teacher using local materials is not mentioned.
- The belief that a teacher is the authority in the subject content and not to be challenged by the students.
- To become a teacher, one needs to learn how to make a scheme of work and lesson plan.

The above may not be exhaustive but it indicates the gaps a teacher educator has to fill while training a geography teacher.

The third objective was to guide students try out new practices and experiment with new behaviour and new methods. The students (TTs) were asked either in a pair or as individuals to write a lesson plan and present it in class through peer teaching. They either pretended to teach O-level or A-Level (S.5 or S.6).

Issues Arising out of the Peer-Teaching Classes:

- Students (TTs) were authoritative in behavior in the sense that they would not allow their students to talk. They wanted complete silence while they dictated notes.
- Some were relaxed and tried out group discussion in teaching. Although it was not well done, at least they tried.
- Knowledge of geography content was just satisfactory, for example one was confused about the origin of the mountains of the East African region. She listed mountain Ruwenzori as a volcanic mountain and resisted criticism.
- Place names and location of places on maps was another weakness of the teacher trainees.
- Very few students developed lesson plans for paper I; Physical geography for A'Level. The reason given by T.Ts was that they were not confident in that area. Another paper they never felt comfortable to teach was the Regional Geography of Uganda.
- One third year undergraduate teacher trainee taught physical geography focusing on erosion using music. The T.Ts were amazed when their colleague went in front of the class with a guitar. He asked the class to repeat after him as he sung the song he composed; focusing on agents of erosion, giving examples of some places in Uganda with prominent features of erosion. He used photographs to show such places he was singing about.
- One teacher trainee used field work method of teaching. We were made to get out of the class and went round the university lecturers' residences to the play ground through the retail shops of Kikoni outside the university fence. She made a survey of the place to be visited, noted features to be studied, and informed the shopkeepers about the visit. This was not the usual fieldwork trips normally carried out in some of the secondary schools.

The teaching materials – below are few examples of what happened in the peer teaching classes.

- Four students photocopied passages which the students read aloud in class and later answered questions developed by the teacher trainees.
- One teacher trainee brought a fishing basket used by fishermen in the swamps and other shallow waters in rivers and lakes of Uganda. I myself had never seen a fishing basket and so I had the opportunity to learn from my students. She eventually demonstrated how it is used.
- One teacher trainee made traditional canoes used in fishing by fishermen using banana fibers. It was amazing.
- One T.T made a soil profile using an empty water bottle.
- Another one made a cross-word puzzle to teach senior two about the farmers calendar in one of the regions of East Africa.
- Others used clay to teach about the river profile.

The researcher was overwhelmed by the creativity of the teacher trainees in the aspect of teaching aids. This is lacking in most of the secondary schools in Uganda. The teacher trainees promised to try out this kind of creativity and become facilitators in class instead of being authoritarians. After observing each class, the teacher trainees criticized the lesson and this improved on the subsequent presentation. They scrutinized the topics, the objectives, the references if any and the teaching aids. They also focused on the undesirable mannerism as the T.Ts presented. The introduction of the lesson and the conclusions were also discussed.

By the end of the lesson the presenters gained confidence instead of loosing hope, they became empowered as more and better lessons were presented.

Conclusions

Teachers who are knowledgeable, confident, approachable, honest, morally upright are admired by students as well as the community where the school is situated. Teachers who are punctual at school, guide and counsel students, are hard working and enthusiastic about their job are also described as being good by the teacher trainees interviewed. Geography teachers who used a variety of teaching methods, many teaching materials, and used fieldwork were an inspiration to teacher trainees.

Use of corporal punishments, sexual abuse, drunkenness, absenteeism, refusal to mark tests, lack of feed back etc were attributes of a poor role model according to teacher trainees. Discussions with teacher trainees reveal that they are not aware of alternative methods of teaching apart from the teacher-centred methods of lecture, question and answer and chalk and talk.

The teachers believed that fieldwork in geography was good as it allowed them to see places as an excursion exercise.

Networking with other subject teachers, teamwork and other interdisciplinary activities like joint debates, fieldwork are considered not of value.

Use of computer in teaching geography has not been practiced in their learning experience in secondary schools up to university. None of the students placed any value to it.

The belief that a teacher is an authority and not to be challenged by the students is strongly embedded in the teachers beliefs.

The Teacher Trainees Teaching Practices in Class (Peer Teaching)

It was revealed in the exercise that:

- Teacher trainees have positive attitude towards "new" practices they were exposed to. They were creative and confidently tried out new methods of teaching like use of music, fieldwork, cross-word puzzles, and debates; methods not normally used by geography teachers. Teacher trainees confidently made a variety of teaching materials.
- It was revealed that some students were not confident in teaching physical geography, map work, photograph interpretation and the regional geography of Uganda. Reasons given were lack of textbooks which are up to date, lack of teachers who confidently teach in schools and fear to fail.

Recommendations

There are gaps in the teacher training perception of becoming a teacher. Teacher Trainees have attitudes and beliefs that need to be explored by teacher educators in all subject areas for purposes of demystifying the process of becoming a professional teacher. Teacher educators need to try out alternative methods of training teachers which are more learner-centered. Such methods should enable teacher trainees create their own knowledge like construction, cooperative learning and teaching.

Teacher trainees have the potential to become good and empowered teachers if they are given the opportunity to do peer teaching and made to develop their own teaching aids. This will stop the usual lamentation that there are no teaching aids is schools.

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