

PRE-SERVICE TEACHER EDUCATION SYSTEM

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ABSTRACT: *Education is what begins when you leave school (Oscar Wilde, cited in Lawton, 1986). According to Adams (1971) education is a composite of skills, techniques, cognitive and non-cognitive learning many of which have long-range rather than immediate consequences. P-Brown, Oke and Nacino-Brown. (1992) also describe education as initiating into activities and modes of thought that are worthwhile and stress that education implies that a person has achieved or will eventually achieve a state of mind characterised by a mastery of and a care for worthwhile things viewed in some kind of cognitive perspective. The main purpose of education, whether formal or informal, has been to produce a person who will be a useful member of society (McWilliam & Kwamena-Poh, 1978).*

KEYWORDS: pre-service, teacher, education, system

INTRODUCTION

Teacher Education refers to the policies and procedures designed to equip prospective teachers with the knowledge, attitudes, behaviours, and skills they require to perform their tasks effectively in the classroom, school and wider community (Wikipedia, 2010). The activities and experiences being formal or informal that help to qualify a person or a student to assume the responsibilities of a member of the teaching profession and to discharge his responsibilities more effectively is classified as Teacher Education (Good (1980), cited in Amissah, Sam-Tagoe, Amoah&Mereku, 2002). According to Okafor (1988) teacher education is the form of education which is planned and systematically tailored and applied for the cultivation of those who particularly teach.

Teacher education is often divided into the following categories: initial teacher training, induction and teacher development or continuing professional development.

- Initial teacher training is a pre-service course before entering the classroom as a fully responsible teacher (Wikipedia 2009). The initial teacher training is referred to as the pre-service teacher education in this article.

Amissah and Mereku (2002) define pre-service teacher education as a process of recruiting, preparing, assessing, certifying and registering people who would function at appropriate levels of a nation's education system as professionals charged with the responsibilities of guiding the learning experiences and other socializing activities of the students or learners.

- Induction is the process of providing training and support during the first few years of teaching or the first year in a particular school (Wikipedia 2009).

A distinction is sometimes made between inducting a teacher into a new school (explaining the school's vision, procedures, etc), and inducting a new teacher into the teaching profession (providing the support necessary to help the beginning teacher develop a professional identity, and to develop the basic competences that were acquired in college).

- Continuing professional development is the process by which teachers (like other professionals) reflect upon their competencies, maintain them up to date and develop them further(Wikipedia, 2009).

Since the world that teachers are preparing young people to enter is changing so rapidly, and because the teaching skills required are evolving likewise, no initial course of teacher education can be sufficient to prepare a teacher for a career of 30 or 40 years. So this reveals the need for continuing professional development in the teacher education system.

History

The foundation of the Accelerated Development Plan (ADP) 1951 was the primary and middle school teacher. The supply of trained teachers was therefore vital to its success. In February 1953, an Emergency Training College was opened at Saltpond which conducted five courses of six weeks each in the year. Based on this, ten Pupil Teachers' Centres were started in the country, which produced three thousand Pupil Teachers per year. Over half the training periods were allotted to English and Arithmetic. The Education Review Committee (ERC) called for plans to increase the supply of trained teachers in order to eliminate Pupil Teachers when most people in the country realized that the sound primary education proposed depends on raising the quality and quantity of teachers in the schools. In 1966 to 1967, there were eighty-two teacher training institutions of different types with more than fifteen thousand students. The basic initial Teacher Education for service in primary and middle school was Certificate 'A' training of where there were four types: i, Certificate 'A' Four- Year Course, ii, Certificate 'A' Post- Basic which ended in July 1968, iii, Certificate 'A' Post-Secondary, and iv, Certificate 'A' in Housecraft. In 1964/65 academic year, special two year advanced courses in English, Mathematics, Geography, History, and General Science were introduced in nine Training Colleges. In 1971, the Education Review Committee recommended the policy of converting all the institutions into Post-Secondary Colleges.

According to Peter, Art, Jonathan, George, John, Nancy, Mark and Joseph (1983) it is for years that the school curriculum has been dominated by textbooks with little input from classroom teachers or local communities. Television has become the most influential and ubiquitous educator in society yet has not been widely or particularly and successfully used by teachers in schools on the other hand. Also, for over 100 years the chalkboard has been the most individualized, interactive and creatively used technology in schools. But now, textbook like-computerized curriculum is being churned out in education. This means the type and level of education has changed with the needs of society.

Structure

According to the Wikipedia (2010), pre-service teacher education may be organised according to two models. In the consecutive model, a teacher first obtains a qualification (often a first university degree), and then studies for a further period to gain an additional qualification in teaching. The alternative is where a student simultaneously studies both in an academic subject and the ways of teaching that subject, leading to a qualification as a teacher of that subject. Other pathways may be available.

Generally, pre-service teacher education curricula can be broken down into these blocks

- Foundational knowledge and skills – usually this area is about education-related aspects of philosophy of education, history of education, educational psychology, and sociology of education.

- Content-area and methods knowledge – often also including ways of teaching and assessing a specific subject, in which case this area may overlap with the first (foundational) area.

- Practice at classroom teaching or at some other form of educational practice – usually supervised and supported in some way, though not always.

Amissah, Sam-Tagoe, Amoah, & Mereku (2002), put forward that, a complete description of pre-service teacher education has at least three components, which concerns the academic, professional, and social preparation of the prospective teacher.

- Academic Preparation of a trainee encounters subject matter or content knowledge of various disciplines and areas including pedagogy and technology. This kind of preparation aims at equipping the trainee with an adequate or enough knowledge in those disciplines and areas so that he or she would feel competent and confident in doing his or her work to the point of satisfaction any time he or she is called upon to display any aspect of them.

- Professional Preparation of a trainee consists of the real and practical use of the knowledge and skills acquired in content, pedagogy and technology during training. This kind of preparation is accomplished through specified periods of actual teaching, sometimes in the classrooms, under a supervised condition during which the trainee is assigned to and works with an experienced teacher in the relevant subject area. The experienced teacher, to whom the trainee is assigned to and works with, serves as a mentor and guides the trainee teacher in the practical experiences of his job.

- A mentor is an experienced person who advises and helps somebody with less experience over a period of time (Oxford Advanced Learners Dictionary, 2001).

The mentor further assesses the work of the trainee alongside a university supervisor from the organization or institution responsible for the training. This means the aspect of professional preparation of a pre-service teacher is the act of really putting into action or making real use of the knowledge and skills acquired from the academic preparation of Teacher Education.

- Social Preparation of a trainee comes out from the daily interaction of the trainee with colleagues, tutors, administrators, resource persons, pupils / students and the entire environment for the period of the course of his or her training.

Accumulating Amissah et al.'s (2002) description of pre-service teacher education to P-Brown, Oke and Nacino-Brown's (1992) information that "What is studied", "How the

teaching and studying are done”, and “When the various subjects are presented” completely describe a curriculum, a true pre-service teacher education curriculum will be entirely described by these three components;

- What is studied, academically, professionally, and socially,
- How the academic, professional, and social teaching and studying are done, and
- When the academic, professional, and social subjects are presented

The variety of definitions and descriptions of pre-service teacher education presented above reveals that the pre-service teacher education is not so simple a program but rather a very complex one with multiple aspects of which when one is even neglected, makes the program incomplete. So with regard to all mentioned above, there comes out the need to investigate and report the effect of environmental changes on some aspects of pre-service teacher education program.

FINDINGS

Researches by Amissah et al. (2002), Herbert and McNergney (2001) and McWilliam and Kwamena-Poh (1978) concerning educational curriculum and changes in the school or societal needs indicate that as the world changes the curriculum of education also tends to change. For example, in the previous times, only the content knowledge, pedagogical knowledge and practicum, each of which contributes to perceive ability to accomplish a goal and task such as successfully teaching children in the classroom, were the principal components in the teacher education structure (ASCD, 2000). But now, as the world is developing, new models, such as ICT, have proliferated into many areas in the society, including the educational system. These models are also influencing instructions at all levels of education.

In addition, some of the recent innovations in teacher education have come from the recognition that:

- Having a deep understanding of subject or a strong subject matter knowledge is necessary but not sufficient to teach children in the classroom
- It is not possible to teach effectively in the classroom without having pedagogical content knowledge as well
- Pedagogical content knowledge is well developed through real practise
- Pedagogical content knowledge development rely more on experience
- Teaching is not as straightforward as people initially thought, but it is a series of many choices some predictable (expected and unsurprising) and some pivotal (critical and essential).

The context of teacher training at all level has therefore changed in the past two decades and it promises to change even more dramatically in the coming century as the insertion of teaching practice in teacher education program is extending both quantitatively and qualitatively (National Council of Teachers of Mathematics (NCTM), 2000).

Also, from previous times to this present age, there has been a worldwide movement towards making the content or curriculum of courses in schools, colleges and universities more applicable to present needs. At the same time, and perhaps more importantly, much thought, time, and energy have been given to investigating ways in which students can be better helped to understand the ideas of a subject and become more proficient in using the associated techniques. This means, new skills have now been introduced at all levels of education. For example, in the universities, institutions, and organisations responsible for the training of teachers, there has been a positive move or change from lecturing only to lecturing and practicum, by which students are put into practices after lectures so as to help and encourage them to build up teaching ideas and skills through their own activities and experiences (Paling, 1986).

- Practicum is a period of work for practical experience as part of an academic course or a work experience as part of a study (Encarta Dictionary, 2011).
- Practicum is a course of study designed especially for the preparation of teachers and clinicians that involves the supervised practical application of previously studied theory (Merriam-Webster Online Dictionary, 2011).
- Practicum is a school or college course, especially, one in a specialized field of study that is designed to give students supervised practical application of previously studied theory (www.answers.com).

These definitions mean that practicum is an integration of learning of the modules comprising the respective program into a practical working document, which demonstrates the interconnections between ‘theory’ and ‘practice’ and translate that into functional practice in the workplace. It also displays evidence of teaching. Practicum in the teacher education system is termed, ‘Teaching Practice’.

According to Wallace & Loudon (2000), teaching involves a search for a set of routines and patterns of actions which resolves the problem posed by particular subjects and group of children. So what happens in the classrooms extends beyond what teachers believe and can talk and write about. A teaching practice, therefore, becomes a search for a more settled rather than a more effective practice.

Then;

- What are the best ways to learn to teach?
- How is knowledge of teaching applied to improve teaching?

Based on these questions, teacher educational institutions make numerous assumptions about the nature of knowledge and how it is acquired.

Gone are the days when only the content knowledge, which contributes to perceive ability to accomplish a goal and task such as successfully teaching children in the classroom, was the corner stone in the teacher education structure. During those periods, the prospective teachers in the colleges and universities were learning subject education from their tutors and lecturers just by listening to and following instructions given to them by their tutors and lecturers without practicing teaching in the classroom. Wood and

Turner-Vorbeck (2001), postulated that this pedagogical style of teaching and learning used to train the prospective teachers is not good since it does not involve the prospective teachers in the practical aspect of the teaching professional job. Almost all the important activities and skills in teaching and learning were done by the tutors and lecturers only, but with theory and no skills, how can one become a better teacher. That is why yet still most graduate teachers feel lacking in their pedagogical content knowledge in teaching and learning. This reveals the importance of modelling the right pedagogy by tutors and lecturers in the colleges and universities throughout their teacher preparation program (Vistro-Yu, 2010).

According to Kahan, Cooper and Bethea's (2003) review, researchers frequently conclude that 'students would learn more if their teachers knew more', but content knowledge in the subject area does not suffice for good teaching. Elif and Sibel, (2007), retaliate to this same notion that, to teach a subject effectively, teachers must have good mastery of the substantive and syntactic structures of the subject. That is, they must not only be capable of telling students the accepted facts, concepts and principles of different branches of the subject. But, they must also be able to explain to students why a particular principle is deemed warranted, why it is worth knowing, and how it relates to other principles within the same branch and across other branches. This means that, having a strong content knowledge is necessary but not sufficient to teach children in the classroom, therefore, the need for teaching practice or practicum in the teacher education system or programme.

According to Boreham and Gray, (2009), teacher identities do not emerge fully-formed on the completion of initial teacher education or initial teacher training, but emerge more gradually on the basis of their embeddedness in concrete work situations. Abbat, (1992) (cited in Boakye, 2004) also emphasises that one of the best ways of ensuring that people work effectively after training is by giving them the opportunities to practice during their training. This practice of trainees or concrete work situation that leads to the creation of network of contacts between institutions is termed 'internship' in the higher level of education. Then, what is internship?

- A field internship is the process of working or training in one's chosen profession under the guidance of an expert or teacher. The field internship is a frequent requirement of certain disciplines before obtaining either a Bachelor's or Higher-Level degrees (www.wisegeek.com, 2011). Internship is therefore a new system of qualification for trained qualified professors or workers that provides professors who will require no training after completing their course. University internships are cooperative programmes between a university and an employing school district that are administered by the university (2011).

During the period of field internship, the interns, who are college or university students who work in temporary positions with emphasis on job training rather than employment or high school students or post graduate adults seeking skills for a new career, are supposed to use the things they have learned in school and put it into practice.

In the previous years, prospective teachers in this country, Ghana, were doing off-campus teaching practices during out-segment. But in this present age, pre-service teachers do

field internship during out-segment because internship is now the basis for practicum in the teacher education system in Ghana. For this reason, all candidates in the Teacher Education Universities in Ghana are required to do the field internship as graduating requirement. The University of Education Winneba (UEW) therefore adopted the model of teacher preparation where in the final year of her four years Bachelor of Education programme, prospective teachers embark on an almost one academic year school-based internship in schools and colleges to practice what they have learnt in theory and to be exposed to diverse experiences of the teaching profession (Essuman, (2009) cited in CETDAR, 2009). The internship that trainees do during their period of practicum is called a Student Internship Programme in the UEW pre-service teacher education curriculum. Then what is Student Internship Programme?

From the above definitions of internship, the UEW Student Internship Programme will be defined as a part-time programme which provides institutions with professors of free labour for typically low-level tasks and last less than one year.

CONCLUSION

Though the products of universities are responsible for the same professional job in the classroom setting, but according to McCormich and James (1983) unlike the basic and secondary levels where all the schools use the same curriculum and syllabus designed by the ministers in their educational system, the degree of political control over teacher education varies. Where pre-service teacher education is entirely in the hands of universities, the state may have no direct control whatever over what new teachers are taught and how they are trained. As a result, different universities and institutions have alternate certification programmes that can move a student into the classroom setting while he works towards certification. For example, the curriculum of UEW's four year Bachelor of Education programme for pre-service teacher education is made up of different categories of teaching and learning processes which constitute the following attributes; i. Content Studies, ii. Pre-Internship Seminar, iii. Student Internship Programme and iv. Post Internship Programme.

In the content studies course, pre-service teachers are much taught contents of subjects above that of the secondary or high school syllabus. They are also trained theoretically, but not practically, in the skills and techniques for teaching in the classroom. These studies lead them to the acquisition of the content knowledge and pedagogical knowledge in teaching and learning. For the course of the pre-internship seminar, pre-service teachers go over the secondary or high school contents. This leads them to the acquisition of the required content knowledge for internship teaching. They in addition, put into practice the theoretically learnt topics in the form of teaching practices and peer teaching. This first directs them to the acquisition of their major area pedagogical content knowledge in teaching and learning and later help them to improve upon or develop their acquired pedagogical content knowledge in major subject teaching and learning. By the course of student internship programme, pre-service teachers really teach children in the classrooms in some partnership schools. This means student internship programme profitably opens the chance for pre-service teachers to put whatever they have learnt,

both theoretically and practically, into real practice. This leads to further development and assessment of prospective teachers' level of pedagogical content knowledge in teaching and learning with respect to major area.

REFERENCES

Adams (1971). Source: Net

Amissah, P. A. K., Sam-Tagoe, J., Amoah, S. A. & Mereku, K. D. (2002). *Teacher Education: It's principles and practice*. UEW, Winneba. Ghana: The City Printers.

Association for Supervision & Curriculum Development (ASCD) (2002). *Education in a New Era*. Alexandria. Virginia. USA.

Boakye, C. (2004). *IFE Psychology 1A Cape Coast*. Ghana Psychologia Ltd.

Boreham, N. & Gray, P. (2009). *Professional Identity of teachers in their early development*. UK: University of Stirling.

Centre for Teacher Development and Action Research (CETDAR) (2009). *Student Internship Handbook (New edition)*. Accra, Ghana: Asante and Hittscher Printing Press Ltd, Dansoman.

Elif, B. Turnuklu & Sibel Yesildere (2007). *The PCK in Mathematics: Pre-Service Primary Mathematics Teachers' Perspectives in Turkey*, IUMPST: The Journal, Vol. 1 (CK). Retrieved from: www.k-12prep.math.ttu.edu

Encarta Dictionary (2011).

Herbert, J. M. & McNergney, R. F. (2001). *Foundations of Education*. USA: A Pearson Education Company 160 Gould Street Needham Heights, MA 02494

Kahan, J. Cooper, D. & Bethea, K. (2003). *The role of mathematics teachers' content knowledge in their teaching: A framework for research applied to a study of student teachers*. Journal of Mathematics Teacher Education 6, pp 223 – 252.

Lawton, D. (1986). *An introduction to teaching and learning*. Britain: St. Edmundsbury Press.

McCormick, R. & James, M. (1983). *Curriculum Education*. London: Croom Helm.

McWilliam, H. O. A. & Kwamena-Poh, M. A. (1978). *The Development of Education in Ghana*. Hong Kong: Commonwealth Printing Press Limited.

Merian Webster Online Dictionary (2011)

Source: www.answers.com

National Council of Teachers of Mathematics (NCTM) (2000). *Principles and Standards for School Mathematics* (Reston, VA: Author) or (Virginia, US: NCTM)

Okafor, F. C. (1988). *Nigeria Teacher Education*. A search for new direction. Enugu – Nigeria: Fourth Dimension Publishing Company Ltd.

Oxford Advanced Learners Dictionary (2001).

Paling, D. (1986). *Teaching Mathematics in Primary Schools, Colchester and London*. Great Britain: Spottiswoode Ballantyne Printers Ltd.

Peter, Art, Jonathan, George, John, Nancy, Mark & Joseph (1983). Source: Net

P-Brown, D., Oke, F. E. & Nacino-Brown, R. (1992). *Curriculum and Instruction, London, Hong Kong*: Manmillan Press Ltd.

Source: www.answers.com

Source: www.wisegeek.com

Vistro-Yu, C. P. (2010). *How Secondary School Mathematics Teachers face the challenges of teaching a new class*. Quezon City, Phillipines. Source: cvistro-yu@ateneo.edu

Wallace, J. & Louden, W. (2000). *Teachers Learning*. Netherlands: Kluwer Academic Publishers.

Wikipedia (2009). The free encyclopaedia. Source: <http://en.wikipedia.org/wiki/induction>

Wikipedia (2010), The free encyclopaedia Source: <http://en.wikipedia.org/wiki/knowledge>

Wood, T. & Turner-Verbeck, T. (2001). *Extending the Conception of Mathematics Teaching*. Purdue University.