

HEART

HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk Report: Pre-service teacher training

Date: 11 February 2015

Query:

The primary question is:

- **Under what circumstances is pre-service teacher education effective?**

The sub- questions are:

- **What literature exists around pre-service teacher education reforms contributing to improved trainee, and student, outcomes?**
- **What literature exists around the political economy of pre-service teacher education reforms?**
- **Which methodologies for pre-service teacher education are most effective?**
- **What literature exists around the organisation and reform of Colleges of Education?**
- **What makes an effective College of Education?"**

The evidence presented should focus on Ghana, West Africa, Sub Saharan Africa, and further afield only if directly relevant.

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1. Overview

This helpdesk aims to synthesis relevant evidence that is focused on the circumstances under which pre-service teacher education can be deemed effective. The evidence included is primarily focused on Ghana and West Africa. Some of the evidence from further afield, which was deemed to be directly relevant, was also included. This report includes this summary overview, a brief literature review and comments from subject experts.

Education policies, however well-intentioned, and official curricula, however well crafted, cannot succeed without the teacher, whose professional management of the teaching-learning process ensures that education really takes place. It is not just any teacher that can make education happen. It has to be an effective teacher. An effective teacher is not just born; they are made over time through training and experience. Teacher education is crucial in this process. 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. Although ideally it should be conceived of, and organised as a seamless continuum, teacher education is often divided into three stages:

- Initial teacher training / education: a pre-service course taken before entering the classroom as a fully responsible teacher.
- Induction: a process of providing training and support during the first few years of teaching or the first year in a particular school.
- Teacher development or continuing professional development (CPD): an in-service process for practicing teachers.

Quality teacher education starts with the initial teacher training course (pre-service training). This stage is vitally important as it lays the foundations for motivation and ensures that new teachers are competent before entering the classroom. However, many countries face ongoing challenges of delivering good quality pre-service teacher training to respond effectively to the constantly changing needs of the curriculum, learners and school communities. This challenge persists whether the issue is improved learning outcomes in literacy, mathematics, languages or HIV prevention and sexuality education. Nevertheless, strengthening pre-service teacher training is necessary as research shows that it is the most effective way to raise educational quality as it will have overall benefits across the whole education system.

Circumstances needed for effective pre-service teacher education

In reviewing the literature it becomes immediately clear that it is difficult to discuss effective pre-service teacher education and student learning outcomes by looking at the training alone and without referring to many other aspects of teacher development, including the policy environment, incentives, management of teachers and the larger system, teacher status, recruitment, deployment, retention; evaluation; and the place of teachers in educational reform. As such, directly after this overview, evidence on the circumstances needed for effective pre-service teacher education is included.

Pre-service teacher education reforms contributing to improved trainee and student outcomes

While there is clear evidence that teacher quality is a key determinant of student learning, very little information is available about the specific observable characteristics of teachers that can account for this impact. Teacher education programs can make a difference to student achievement depending on the type of education program and support that is put in place. Specific factors such as the years of teacher training (initial and in-service), the

teacher's verbal fluency, subject matter knowledge, having books and materials and knowing how to use them, teacher expectation of pupil performance, time spent on practice and classroom preparation, and frequent monitoring of student progress are all key factors identified in some key research studies that have a positive bearing on the quality of teachers' performance and, consequently, student achievement. There is little available literature on this from the Ghanaian, West African or Sub Saharan context but research from other contexts may provide some evidence and insight. Very few papers explored this topic more deeply in sub-Saharan Africa.

The political economy of pre-service teacher education reforms

Limited evidence was found discussing the political economy of pre-service teacher education reforms. The evidence that does exist explains that teachers and schools do not exist in a vacuum. Actors and processes that are outside the school system influence outcomes. Different factors influence different aspects of education reform, whether policy design, financing, implementation or evaluation. Given the importance of these power relations and their impact on education, it is surprising how little literature is available to guide policy decisions.

The different dimensions of power in the education sector in Ghana, include power over political ideology in education, power over policy direction, power over financial resources and power over implementation processes. Unfavourable political economy may block educational reform. Education reform may be politically driven and shaped by the interests of different stakeholders. The interests, actions and choices of a wide range of actors must be considered.

The existing literature indicates that there are several other factors and stakeholders that may inhibit or promote educational reform. Political competition, knowledge of the electorate, domination by political elites and centralisation of governance can all be powerful forces influencing education. As well as external factors to the education sector, some internal factors can impact on outcomes. Teachers can be important agents of change. Teaching is not seen as a rewarding profession by the current generation of graduates, yet teachers are highly valued by communities in Ghana. Salaries must be raised and infrastructure improved in order to attract high quality candidates to become teachers. Quality of education is a concern for all parties involved. As teachers are central to the education process, teacher training must be of the highest quality possible.

Ghana is found to be entering a critical period. Political, economic and social change processes require good governance to maximise opportunities. Recent political manifestos indicate interest in the education sector. The National Democratic Congress placed emphasis on expanding teacher training facilities, while the Convention Peoples Party want to accelerate on-going teaching programmes to increase the number of teachers in the classrooms and at the same time training those already in the classroom.

Elsewhere, education policy making and implementation in Ghana is reportedly becoming more personalised and political party manifesto driven. At the elite level, both political parties have committed to improved education, but their practical political actions have undermined institutional effectiveness in the education sector, with education policy responses/reform and implementation focusing on short term policy changes. Policies have focused on visible political targets such as access issues at basic levels. This has come at the expense of quality issues. The competitive electoral cycle and the weakness of technocratic input in the education sector are the main causes of the problem. There is a need to align technocratic inputs with the partisan interests in education.

Which methodologies for pre-service teacher education are most effective?

Teachers will teach as they are taught to teach. Therefore, the methodologies that are most effective in pre-service training are those which are required in schools and classrooms. For Ghana and other countries in Sub Saharan Africa there has been a move away from traditional rote learning to active learning methodologies. Therefore, this should be reflected in the methodologies used in colleges of education. In general, the literature reviewed suggests that the most effective methodologies for effective pre-service teacher training are:

- Innovative methodologies or modes of delivery that can reach all children
- Courses and methodologies that respond to the specific needs of teacher candidates in the country
- Methodologies based on reflective practices

Organisation and reform of Colleges of Education

Since the 1990s, the Ministry of Education in Ghana has embarked upon reform of the structure and content of teacher education in Ghana. There are many issues that the reforms did not address, including teaching quality, low morale of teachers due to lack of incentives and low salaries, disjuncture between theory and practice and poor teacher knowledge of important subjects. To address some of these challenges, it is recommended that the Government of Ghana provide better remuneration and incentives to teachers, take steps to ensure that more females are attracted into teacher education, expand and streamline programmes to sponsor students into teacher training colleges and ensure the entry requirements to teacher training colleges are comparable to those of other tertiary institutions.

In 2008, 38 Teacher Training Institutions (TTIs) were re-designated as Colleges of Education (COEs). Since this reform, various governance, regulation, management and autonomy challenges have arisen, which must be addressed if the colleges are to deliver effectively. To address some of these challenges, various courses of action can be taken. People with experience in tertiary education governance are required to assist with the transition. Additionally, the senior management staff should be equipped with the skills required for managing tertiary education institutions. Training programs are needed to build the required managerial capacity. The autonomy of the colleges should be strengthened to foster managerial and leadership innovation in initial teacher preparation.

Evidence from within Ghana indicates that greater attention needs to be focused on the training and support of teachers in their classroom role rather than focusing on the provision of resources. Where possible teachers should be helped to understand reform and why change is desired.

It is recommended that the Government of Ghana should set up a special fund to provide more infrastructure and equipment for the Colleges. Teachers of the colleges should also be assisted by the Government to acquire qualifications required for teaching in tertiary institutions.

There is a need for the strengthening of Colleges of Education in order to diversify tertiary education in Ghana. The change in the duration of secondary education from four years to three years in 2008 after a change in political administration in Ghana, has resulted in more secondary school graduates than the capacity of the nation's universities and polytechnics. Colleges of Education must be strengthened through the provision of financial support if they are to be perceived as attractive alternative pathways to tertiary education for secondary school leavers.

An effective College of Education

Pre-service training is universally regarded as the responsibility of governments and is usually delivered through specialist higher education institutes. However, pre-service training is not a uniform experience and research has shown that training institutions vary widely with respect to the content and quality of the training they offer and therefore their impact on teacher candidates. Furthermore, a review of the literature indicates that generally, in Africa, the expansion of teacher numbers and the need to provide comprehensive programs of teacher education cannot be met by these existing institutional structures and their current policies programs and practices. The evidence reviewed for this paper indicates that to be effective, Colleges of Education should:

- Have consistent policies on recruitment
- Provide new and innovative modes of delivery and flexible and mobile forms of information and communication technologies
- Offer programmes with more school based education
- Stay up to date with current thinking and knowledge and integrate information on national education reforms into their programs quickly
- Have quality teacher educators and tutors who are committed

Some of these elements are already beginning to appear in Colleges of Education in some countries in Sub-Saharan Africa and many case studies can be found in the literature.

2. Circumstances needed for effective pre-service teacher education

Teaching and Learning: Achieving Quality for All

UNESCO. 2014. EFA: Global Monitoring Report. UNESCO, Paris, France.
<http://unesdoc.unesco.org/images/0022/002256/225660e.pdf>

Chapter 6 of the Global Monitoring Report (GMR) titled 'a four-part strategy for providing the best teachers' provides an excellent overview, based on literature and evidence from around the world, of the reforms and conditions needed to provide the best quality teachers and ensure improved student learning outcomes. The four strategies recommended are to (1) attract the best teachers (2) improve teacher education so all children can learn (3) get teachers where they are most needed and (4) provide incentives to retain the best teachers. In looking specifically at what needs to happen with pre-service education, under strategy 2, the report recommends the following as key elements to ensure that pre-service education is effective in preparing teachers to enter schools and classrooms: (a) initial teacher education should make up for weak subject knowledge of most trainees (b) prepare teachers to support learners from diverse backgrounds including training in the use of diagnostic and formative assessment so teachers can identify weak learners and provide them with targeted support (c) provide enough classroom experience as opportunities for teaching practice are essential to ensure that teacher trainees succeed later in improving students' learning and (d) replace traditional training methods such as lectures and seminars with those promoting practical skills and child-centred pedagogy.

Teachers Professional Development: An International Review of the Literature

Villegas-Reigers E. 2003. UNESCO, IIEP Paris, France
<http://unesdoc.unesco.org/images/0013/001330/133010e.pdf>

This review by UNESCO looks at teachers' professional development as a key element of education reform. It reviews the international literature in order to contribute to the knowledge base of educators, policy makers, teacher educators and administrators, who are committed to planning, implementing and assessing education reforms and to offer information on options and possibilities for improving teacher education which can improve the quality of teacher and therefore, student learning outcomes. In reviewing the international literature on

pre-service programs, Villegas-Reigers (2003) finds there are many different models being used around the world in terms of aims, content, where it takes place, financing and duration but that most have received some strong criticism. The main censures include (a) poor quality curricula (b) over emphasis on theory and a lack of practice (c) a weak relationship between program and school practices (d) low quality of candidates that enter the program (as result of the lack of attractive characteristics of the teaching profession) and (e) overly short programs, which leave candidates with a lack of subject matter knowledge and deficient in pedagogical knowledge. This leaves newly qualified teachers ill equipped to enter schools and classrooms. As a result, teacher preparation is a major concern in both developed and less developed countries. International trends to reform teacher education programs and make them more effective have included (a) increasing the duration of teacher education programs (b) increasing the amount of time spent in practicum and (c) strengthening the relationship between teacher education programs and schools. However, Villegas-Reigers does not provide evidence on how effective these reforms have been in terms of improving the quality of teachers entering the profession.

Research Analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices

Moon B. 2007. UNESCO, Paris, France

http://www.ineesite.org/uploads/files/resources/Attracting,_developing_and_Keeping_Teachers1.pdf

This paper examines the challenges and effectiveness of initial teacher education from the perspective of not only the training content but also the policy environment and the recruitment and retention of suitable teacher candidates. In looking specifically at the evidence from Sub Saharan Africa, the study shows how most countries in the region produce only a minority of the teachers required, leading to an acute shortage of qualified teachers. The paper provides examples of three case studies from the region (a) South Africa (b) Sudan and (3) Nigeria that exemplify some of the key conditions that need to exist if successful educational reform for teachers is to be achieved. The most important of which are identified as: (1) Teacher Training Curriculum: Needs to be focussed on core classroom skills and understanding, particularly pedagogies that are more effective in raising achievement. Teacher education programs, therefore, need to be conceptualised in ways that incorporate the daily life and work of the teacher in the classroom. (2) Duration: A move towards shorter initial training linked to opportunities for ongoing schools-based continuing professional development would provide training opportunities to much larger numbers of teachers and (3) Exploiting technologies: The opportunity and entitlement for education and training can be significantly enhanced if the revolution in communication technologies is, in an evolving way, built into play and practice around teacher education. Moon also points out that effective pre-service teacher training in the Sub Saharan African context often requires policy issues to be addressed as current policy on teacher education is fragmented, incomplete and, more often than not, simply underdeveloped

Recruiting, retaining and retraining Secondary School Teachers and Principals in Sub Saharan Africa,

The World Bank. 2007. The World Bank, Washington DC, USA

<http://siteresources.worldbank.org/INTAFRREGTOPSEIA/Resources/No.4Teachers.pdf>

This study used an extensive review of literature and subsequent field studies from Ethiopia, Ghana, Guinea, Madagascar, Tanzania, and Uganda to identify current trends, challenges and opportunities in the recruitment, retention, and retraining of secondary teachers and principals in Sub-Saharan Africa. Although the paper concludes that there have been few, if any, interventions that have yielded dramatic, positive results, based on the evidence reviewed several critical and promising areas for the improvement in the quality of teachers

can be suggested. These suggestions focus primarily on the adoption of new approaches to recruitment and training (both pre-service and in-service) and improvements in the deployment, utilisation, compensation, and conditions of service for teachers. In looking specifically at pre-service teacher training programs, the paper recommends that educationalists work to achieve a balance of practical pedagogical skills and content in the pre-service teacher education curriculum. And also design a linkage between pedagogical skills and content development through school-based studies and expanded and well-supervised, practical experience in schools that take place throughout the whole teacher education program rather than just at the end.

The Pre-service Training of Teachers – Does it Meet its Objectives and how can it be improved? A Background Paper for the EFA Global Monitoring Report

Lewin K. 2004. UNESCO, Paris, France

<http://unesdoc.unesco.org/images/0014/001466/146658e.pdf>

This paper explores the insights produced into how pre-service training is conducted and how it can be improved from the Multi Site Teacher Education Research Project (MUSTER) which explored aspects of PRESET in five countries (Ghana, Lesotho, Malawi, Trinidad and Tobago and South Africa) over four years. The evidence from the study suggests that, with a few minor exceptions, conventional PRESET as practised in the MUSTER countries has limited effectiveness, high costs, and modes of delivery which are based on assumptions which have been slow to adjust to the demands of EFA programmes and the realities of changing qualities of entrants. The study concludes that in order for pre-service training to be more effective in these countries the following would need to take place (a) the location, length and structure of the training should be reshaped to allow training to be acquired with less front loading, and more incremental sequential development over time (b) a staircase of training beyond PRESET linked to career progression should be developed and implemented (c) develop a PRESET curriculum to reflect changed conditions and needs greater integration of the training experience across domains, more linking of theory into practice, sharp focus on the benefits of different modes of organising teaching practice, improved assessment, and much greater supply of teacher education learning material developed locally (d) more strategic use of untrained teachers supported by orientation programs and school-based apprenticeship-like relationships to pre-qualify for formal PRESET (e) embed the training process more firmly in the school and (f) provide teacher educators at all levels (schools, colleges and universities) with induction and continuing professional development.

Teacher Professional Development: A Guide to Education Project Design Based on a Comprehensive Project and Literature Review

Ginsberg M. 2010. USAID Education Quality Improvement Program 2 (EQUIP 2).

<http://www.epdc.org/sites/default/files/documents/EQUIP2>

Grounded in the findings of empirical research, conducted in “developing” as well as “developed” countries, this paper discusses some of the key system and policy dimensions of teacher professional development, which is conceptualised as pre-service, induction and in-service. The study identifies a set of key principles for effective professional development systems and policies for teachers, amongst which are (a) standards should be a core element of teacher professional development policies (b) the providers of professional development should model the capacities (i.e., knowledge, skills, and dispositions) that teachers are expected to exhibit in their professional practice (c) education system policies, procedures, and resources for recruitment, retention, evaluation, remuneration, and promotion should emphasise the same knowledge, skills, and dispositions that teachers are required to exhibit. The author recognises the challenges, limitations and cost implications that governments, international organisations, educators, and other stakeholders may face in reforming teacher education systems and policies and stresses the need for policy and

system reform to be based on valid and reliable empirical evidence and careful consideration of the appropriateness of using findings from other societies to inform decisions in a given context.

3. Pre-service teacher education reforms contributing to improved trainee, and student, outcomes

The effectiveness of inputs in primary education: Insights from recent student surveys for Sub-Saharan Africa, University of Zurich

Fehrler S, Michaelowa K & Wechtler A. 2009. Originally published in Journal of Development Studies; 45 (9)

http://www.zora.uzh.ch/26559/2/jds_article.pdf

This study was conducted to estimate the impact of varying educational inputs on student achievement in PASEC (Programme d'Analyse des Systèmes Educatifs de la CONFEMEN) and SACMEQ (Southern and Eastern Africa Consortium for Monitoring Educational Quality) countries in Sub-Saharan African. The inputs examined were school equipment, teacher education and training and classroom organisation. With respect to teacher education and training, the analysis found that a longer duration of initial teacher education, while positive, was not found to have a significant impact on the English and Mathematics scores of grade 6 students. The conclusion of the study therefore, is that the actual length of teacher training, both pre-service and in-service, has little impact on student outcomes in Mathematics and English and the focus of teacher education reforms should be on content and quality rather than duration.

The Impact of Teacher Knowledge on Student Achievement in 14 Sub Saharan African Countries

Altinok N. 2013. UNESCO, Paris, France.

<http://unesdoc.unesco.org/images/0022/002258/225832e.pdf>

This paper focuses on the effect of teacher quality on pupil achievement in 14 African countries which took part in an international student achievement test, the SACMEQ, which assessed both teacher and student knowledge. A hierarchical regression method was used to assess to what extent the teacher score may impact on student achievement. The results show that teacher knowledge differs between countries, and even between different clusters within countries. Moreover, while in some countries, teacher knowledge does not have a strong impact on pupil achievement, in others like Namibia and South Africa, its effect is large and significant. In South Africa for example, an increase of about 100 points in the teacher score was found to increase the student score by 38 points. Therefore, the training of teachers in subject and pedagogical knowledge is vital to improve student learning outcomes.

Variations in reading achievement across 14 southern African school systems: which factors matter?

Hungi N & Thuku F W. 2010. International Review of Education; 56 (1)

<http://link.springer.com/article/10.1007%2Fs11159-009-9148-x>

Although the main topic of this paper is not the effect of teacher education or training on pupil performance, this is one of the only papers found, which includes teacher achievement as one explanatory variable in Sub-Saharan African countries. For this study the authors employed a multilevel analysis procedure in order to examine the pupil and school level factors that contributed to variation in reading achievement among Grade 6 primary school pupils in 14 southern African school systems (Botswana, Kenya, Lesotho, Malawi, Mauritius,

Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Uganda, Zambia, and Zanzibar). The authors found that teachers reading score had an effect on pupil reading achievement in only 2 countries (Kenya and Lesotho). Among the other large number of potential explanatory variables, the most important factors affecting variation in pupil achievement across most of these school systems were grade repetition, pupil socioeconomic background, speaking the language of instruction at home, and pupil age.

Student Teachers' Attitudes and Concerns about Inclusive Education in Ghana and Botswana

Kuyini, A B & Mangope B. 2011. International Journal of Whole Schooling 7 (1)
<http://files.eric.ed.gov/fulltext/EJ939056.pdf>

This study examined student teachers' attitudes and concerns about inclusive education in Ghana and Botswana. A three-part survey questionnaire consisting of background variables, attitudes, and concerns was completed by 202 students from four teacher training institutions in both countries. One of the institutions was a university and the others were teacher training colleges. Employing descriptive statistics, t-tests and ANOVA the results showed that the student teachers' attitudes were barely positive; they had concerns about inclusive education relating to a number of issues including resources and their responses were influenced by some background variables. The findings support earlier studies of attitudes and concerns of practicing teachers and provides basis for recommending that more needs to be done in teacher training courses in Ghana and Botswana to enhance student teacher attitudes towards students with disabilities in regular classrooms as well as reduce the existing concerns. Some recommendations are made in relation to improving student teachers' disposition towards inclusive education.

Examining teachers' concerns and attitudes to inclusive education in Ghana

Agbenyega J. 2007. International Journal of Wholeschooling; 3 (1)
<http://files.eric.ed.gov/fulltext/EJ847471.pdf>

This paper reports on a study that examined teachers' concerns and attitude toward inclusive education of students with disabilities in Ghana. A 20 item Attitudes Toward Inclusion in Africa Scale (ATIAS) was completed by 100 teachers from five 'Inclusive Project' schools and five Non-Project coeducational basic schools in three different localities; central business, coastal and suburban areas within the Greater Accra metropolis. Analysis of the responses indicated four factors: Behavioural Issues, Student Needs, Resource Issues and Professional Competency. Interviews were also conducted with a small sample of the teachers in order to extend the understanding of their attitude and concerns. The paper draws on the findings to provide recommendations for improving practice in inclusive based classrooms. It concludes that the existing pre-service and in-service teacher programs need to be re-evaluated to develop specific programs for training regular classroom teachers so that they can effectively respond to the needs of all students. Further, as multidisciplinary teams are important facilitators of inclusive education, research needs to be conducted to evaluate how the GES/VSO project is collaborating with other paraprofessionals who are included in the project, and to find out what is the initiative's impact on sensitising and reducing negative attitudes among the Ghanaian population toward students with disabilities.

Innovative Practices in Pre-Service Teacher Education - An Asia-Pacific Perspective

Ping Lim C, Cock K, Lock G and Brook C (Eds). 2009 Sense Publishers
<https://www.sensepublishers.com/media/511-innovative-practices-in-pre-service-teacher-education.pdf>

This book aims to document best practices and lessons learnt from the various teacher education institutions in the region, and generate discussions of pertinent issues in pre-service teacher education such as pedagogical beliefs, theory-practice gap, curriculum and assessment, and ICT in education. It includes chapters on the following topics:

Following in the wake of educational reforms in the Asia-Pacific region, there have been signs of a paradigm shift in school and teacher education. This chapter aims to point out that in different paradigms the nature of learning and the role of the teacher are completely different; the theory and practice of pre-service teacher education are experiencing a shift towards the new paradigm, with its emphasis on globalisation, localisation and individualisation, contextualised multiple intelligences and life-long professional learning in the process of teacher development. From this new paradigm, the chapter also draws implications for innovation and practice in pre-service teacher education in the Asia-Pacific region.

Global perspectives on teacher learning: improving policy and practice.

Schwille J and Demebele M. 2007. UNESCO, Paris, France.

<http://unesdoc.unesco.org/images/0015/001502/150261e.pdf>

This booklet looks at all forms of teacher learning, formal and informal, from teachers own early schooling, through their pre-service preparation and induction, and on to the end of their teaching career. It argues that to formulate policy and design effective programmes for teacher preparation and professional development, the whole spectrum of teacher learning must be considered. Much recent research and fresh knowledge have been brought together for the first time in this booklet. This includes literature on the nature of teacher preparation and professional development in developing countries (notably ambitious, innovative reforms), the rapidly growing body of research on teacher education and teacher learning in industrialised countries, the recently published analyses of the exceptional forms of professional development that exist in Japan and China, and the various positions taken by critics and proponents of teacher preparation and professional development as they exist today.

4. The political economy of pre-service teacher education reforms

Teachers in Ghana: Issues of training, remuneration and effectiveness

Osei G. 2006. International Journal of Educational Development; 26(1)

<http://www.sciencedirect.com/science/article/pii/S0738059305000763>

This study addresses educational reform in Ghana with reference to one of the most important potential agents of change in any system of schooling—its teachers. The empirical data on secondary teachers and trainee teachers used here is taken from a larger case study of the attitudes and opinions of teachers and parents in the education system of Ghana. Secondary teachers in Ghana are seriously underpaid, but not necessarily undervalued in the community. They take on other jobs to support themselves and their families, yet they do not lack commitment to the professional task of teaching. It is argued that financial pressure on teachers to find other sources of remuneration militates against their capacity to act as agents of change in the rapidly reforming Ghanaian state. Furthermore, teaching is not often seen as a financially rewarding profession by a new generation of secondary-school graduates. The author recommends that teachers' salaries be raised and infrastructure support for schools increased.

Teacher Education in Ghana - A Contemporary Synopsis and Matters Arising

Asare K & Nti SK. 2014. SAGE.

<http://sgo.sagepub.com/content/4/2/2158244014529781.full.pdf>

In an era when quality education is a concern for education-focused international organisations and dominates national debates, teacher quality must equally be a priority. The central role of the teacher requires that teacher education must be of the highest quality toward achieving any educational agenda. This article provides a synopsis and adds to the currency of contemporary teacher education efforts in Ghana. It presents key teacher training institutions in Ghana and highlights the structure of teacher preparation, type of teacher training pursued, and pathways to teacher development in Ghana. It examines how the question of approaches teacher educators use in training student-teachers can or cannot lead to the development of critical thinking skills, which are vital to promoting teacher effectiveness. The authors advocate that universities, colleges, Teacher Education Division of the Ghana Education Service, and all bodies involved in teacher education in Ghana join forces to chart new content and, emphatically, approaches to teaching teachers-in-training that can promote critical thinking skills in teachers. With the increased private sector participation, a debate is required to discuss the need to ensure uniformity in teacher quality standards in Ghana.

A rigorous review of the political economy of education systems in developing countries

Kingdon GG, Little A, Aslam M, Rawal S, Moe T, Patrinos H, Beteille T, Banerji R, Parton B and Sharma SK. 2014. Education Rigorous Literature Review. Department for International Development, UK

http://r4d.dfid.gov.uk/pdf/outputs/HumanDev_Evidence/Political_economy_2014_Kingdon.pdf

Teachers and schools do not exist in isolation of the larger world around them. Frequently, many of their actions – and the school outcomes that they are accountable for – are influenced by incentives and constraints operating outside the schooling system. Each of these factors influences different aspects of education reform, whether policy design, financing, implementation or evaluation. Given the importance of these power relations in influencing student outcomes, there is surprisingly little literature to guide us in making related policy decisions. One reason is that examining these issues in the case of education may not be amenable to a particular disciplinary lens and is better served through an interdisciplinary approach. A key contribution of this review is to pull together the essential literature from various disciplinary and interdisciplinary traditions and to provide a conceptual framework in which to situate the analysis of political economy issues in education research. Another contribution is to carefully review the existing literature and identify research gaps in it.

The literature shows there are several other factors that may inhibit or promote educational reform. Multi-party electoral competition, political knowledge of the electorate, the extent to which the elite dominates the political arena and the extent of centralisation of governance can all be powerful forces influencing the provision of basic educational services in certain contexts.

This review concludes that unfavourable political economy blocks educational reform. Education reform takes place under circumstances that in many cases are politically driven, and shaped by the interests and incentives facing different stakeholders, as well as by formal and informal institutions. Insights from the literature urge consideration of the interests, actions and choices of a wide range of actors, working in a wide range of institutions across a number of interacting stages, in the process of education policy reform – from agenda setting, to programme design, to adoption, to implementation to institutionalisation and sustainability.

The Initial Education of High School Teachers: A critical review of major issues and trends

Sultana R. 2005. Studying Teacher Education: A journal of self-study of teacher education practices; 1 (2)

<http://www.tandfonline.com/doi/abs/10.1080/17425960500288390#.VNn5BUesURo>

This paper draws on major research findings in international literature in order to provide a critical review of a number of key issues and trends in the initial education of high school teachers. Firstly, this paper contextualises the prevalent discourse surrounding the field of initial teacher education (ITE) and explores the effect that this discourse has on the conceptualisation of teachers' work. Secondly, this paper focuses on the debates regarding the most propitious site for the teacher education enterprise, the programme structure for ITE, the field placement or practicum, the relationship between subject study and pedagogy, and the overall effectiveness of teacher education. The paper concludes by considering the new challenges that the field of initial teacher education must confront and the implications of such challenges for the ITE curriculum.

The Political Economy Analysis of the Education Sector in Ghana: the Implications for STAR-Ghana.

Casely-Hayford L. 2011. STAR-Ghana, Ghana.

<http://www.starghana.org/userfiles/files/publications/Report%20of%20Political%20Economy%20Analysis%20of%20the%20Education%20Sector%20of%20Ghana.pdf>

Ghana is entering a critical period in which its political, economic and social change processes will demand the highest level of human development that the country can offer in order to ensure good governance and maximise opportunities within the resource and service sectors. The objective of the study was to undertake a political economy analysis of the education sector in Ghana, and to use the results to assist in the refinement of STAR-Ghana's strategy, with particular focus on locating the drivers of change within the education sector, identify key issues, strategies, institutions and actors for facilitating broad alliances and coalitions among key stakeholders in order to ensure pro-poor service delivery in the education sector.

Amongst other findings, the analysis reported several key issues emerging from the political parties manifestos. For example the National Democratic Congress placed emphasis on expanding teacher training facilities and institutions in order to train more teachers and all teacher training colleges should be under teacher training universities. Meanwhile, the Convention Peoples Party want to accelerate on-going teaching programs to increase the number of teachers in the classrooms and at the same time training those already in the classroom.

Report on panel discussion on: "interrogating the prospects for political, social and economic transformation in ghana"

Ghana Political Economy Reading Group (GPERG) under the auspices of the Effective States and Inclusive Development (ESID). 2014.

http://www.cddgh.org/_upload/general/file/CDD%20Ghana%20Files/Report%20ESID%20Panel%20Discussion_%20Final.pdf

On 31 July 2014, the Ghana Political Economy Reading Group (GPERG) held a panel discussion, "interrogating the prospects for Political, Social and Economic Transformation in Ghana" under the auspices of the Ghana Center for Democratic Development (CDD-Ghana) and the University of Ghana Business School. The GPERG is an offshoot of the Effective States and Inclusive Development (ESID) research project sponsored by DFID based at the

University of Manchester UK. The purpose of the panel discussion was to provide a platform for the lead researchers working on various ESID related studies on Ghana to share their research findings with public policy makers, development partners, and other academics studying Ghana's recent development processes.

Mr. Edward Ampratwum presenting the preliminary findings of an ongoing study, "promoting Quality Education through Policy Reform in Ghana" underscored the impact of Ghana's political settlement on education policy making and implementation. The central focus of the study is to understand the politics, interest, and ideas underlying teacher education reform and the establishment of the Ghana Education Trust (GET) Fund - two of the key policy responses to promoting quality education. He notes that, under Ghana's competitive clientelist political settlement, education policy making and implementation has become more personalised and political party manifesto driven. He said that, while at the elite level, both parties appear to show commitment for improved education (quantity and quality) their practical political actions have undermined institutional effectiveness in the education sector. Education policy responses/reform and implementation has focused more on short term rather than long term policy changes that provide long term solutions to the structural issue of quality vs. quantity. He provided evidence to show that, policy choices and responses have focused attention more on high visible political targets such as access issues at basic levels at the expense of quality issues and access to higher education, critical for building the knowledge base for industrialisation. The outcome of this politically driven policy making in the education sector by the competitive electoral cycle, is the gradual weakness of technocrats inputs, where party/government interest overrides technocratic views in policy making and implementation. He concludes that, there is a need to align technocratic inputs with partisan interests in education.

Political Economic Analysis of Education in Ghana

Casely-Hayford L. 2011. Presentation. STAR-Ghana, Ghana.

<http://www.starghana.org/userfiles/files/pages/POLITICAL%20ECONOMY%20OF%20EDUCATIONAL%20SECTOR.pdf>

This presentation discusses the different dimensions of power in the education sector in Ghana, including power over political ideology in education, power over policy direction, power over financial resources and power over implementation processes. The lessons from Ghana's political economy analysis in education are as follows:

- Leadership: 1950's Education seen as a key transformational tool of the state. Varied over 70's where military regimes governed using force, coercion and fear....critique, conscientisation, media freedom was limited. Culture of silence developed.
- Early 80's shift from state alone being driver of education reform to new economic paradigm (structural adjustment era)--- shared responsibility with development partners. Educational decision making in a joint process with Bretton Woods (IMF and WB);
- Since early 1980s development partners have had significant influence over the direction of education.
- Increasing influences by the Parties who achieve power over state (2004 presidential commission---white paper)—went ahead 4 years... ; paid apprenticeship to youth population... shift towards investments in second cycle and tertiary education.

The Intersection of Policy, Reform, and Teacher Education

Wiseman D. 2012. Journal of Teacher Education; 63 (2)

<http://jte.sagepub.com/content/63/2/87.full.pdf+html>

Teacher education exists in an environment where there are wide achievement gaps among diverse student groups. International comparisons continue to show that U.S. students are not competing at expected levels, especially in mathematics and science where they rank lower than some third world countries. Policy affecting teacher education evolves from a wide range of sources, including public perceptions and attitudes, federal initiatives, current trends in public schools and higher education, the visions and whims of politicians, and the profession's own initiatives. No matter how it emerges, it is not unusual for policy ebbs and flows to result in major reforms or restructuring of programs and curriculum as the teacher education community attempts to respond to federal and state political wishes and to the attitudes and perspectives of legislators and the public. At other times, policy emerges from educational reform and restructuring.

5. Methodologies for effective pre-service teacher education

Learning to Teach in Ghana: an Evaluation of Curriculum Delivery

Akyeampong K, Ampiah J, Fletcher J, Sokpe B & Kutor N. 2000. Centre for International Education, University of Sussex, UK

http://r4d.dfid.gov.uk/PDF/Outputs/SkillsForDev/Muster_mpd_17_11_02.pdf

This paper reports on research undertaken in Ghana to answer the question: what kind of trained teacher emerges from the initial teacher training system and what areas and aspects of training do graduating student teachers value the most and the least? Using both qualitative and quantitative methods, this paper explores exiting trainees' experiences of training and the curriculum as it is delivered and what they value. Also, in an attempt to understand the instructional practices in the colleges, tutors' lessons were observed and followed by interviews. The main findings were as follows. Despite a range of practices used by tutors, the main method of teaching is fundamentally one of transmission. Copying notes and taking exams are central to the learning experience. Tutors felt trainees' content knowledge was weak. There was a general lack of engagement with practical learning experiences and contextualised learning in general. The paper suggests that there is a need for tutors to have more relevant professional development, make use of a wider repertoire of resources and make more use of teaching practice, which is the most valued part of training from trainees' perspective. In general, supervision of teaching practice was primarily understood in terms of the application of methods rather than an opportunity for problematising and contextualising teaching. In this context the attempt to introduce child-centred approaches to teaching needs careful consideration as these have been found to be most effective.

Ensuring Quality by attending to Inquiry: Learner Centred Pedagogy in Sub Saharan Africa

Vavrus F, Thomas M & Bartlett L. 2011. UNESCO International Institute for Capacity Building in Africa (IICAB)

<http://unesdoc.unesco.org/images/0021/002160/216063e.pdf>

The IICAB is mandated to strengthen the capacities of teacher education institutions of its 54 member states, including Ghana. In this document the IICAB argues that the relationship between learner, teacher, and materials is at the heart of education quality, and that effective initial teacher training to meet learners' needs is essential. The study points out that, as many African countries have recently been reforming the historically common teacher centred curriculum, it is essential that teacher training colleges adopt the same methodologies in order to be effective because teachers will teach the way they were taught. The paper recommends that teacher training colleges implement the reflective practitioner model in which tutors aim to create conditions for student teachers to use active learning strategies

and to think critically about the authoritative knowledge in their fields, inquire into and discuss various ways of teaching content for different contexts and to develop their own pedagogical style. The challenges of using such methodologies in teacher training institutes is recognised and in particular, the weaknesses of the tutors who are often not specifically trained as teacher educators since it is assumed that anyone graduating in education would be capable of teaching at a college. The paper provides a number of strategies for action to implement reflective practitioner methodologies in teacher training colleges, starting with professional development for teacher trainers.

Who becomes a teacher? The characteristics of student teachers in four countries

Coultas J & Lewin K. 2002. International Journal of Educational Development; 22

<http://sro.sussex.ac.uk/25671/>

This study reviews the characteristics of students entering initial training programs in four countries—Ghana, Lesotho, Malawi and Trinidad and Tobago and discusses the implications of this for the content, curricula and methods of initial teacher education programs in these countries. Some of the general themes emerging from the data suggest that the academic level of many entrants is unimpressive. Most only have the minimal qualifications necessary and are unlikely to have secure grounding in core subjects and the majority of entrants to training appear to come from family backgrounds where parents' occupational and educational levels suggest that the cultural capital they bring with them to the training experience is constrained. The paper argues that such data profiles of the actual characteristics of trainees, not those idealised or assumed in selection rubrics, are all critically important for attempts to reform and improve the relevance and impact of the initial teacher training process because it means the colleges can respond to the *specific* needs that it creates. For example, knowing that the academic qualifications are unimpressive carries implications for the proportion of time that teacher education curricula allocate to subject upgrading. Though it might be thought that raising entry standards could be a solution, the scope to do this is constrained in several of the countries. Low academic achievement in the medium of instruction (in all cases English) is worrying. None of the teacher education curricula in the countries makes special provision for upgrading language fluency, or for that matter working with pupils in a multilingual environment where linguistic code switching is likely to be common. The main conclusion of the research is that knowing who the trainees are can be a basis for more effective, responsive and reflective modes of initial teacher training that recognise difference, address questions of motivation and commitment, and prepare trainees purposefully for their first appointment.

Improving the conditions of teachers and teaching in rural schools across African countries

Olugbenga Adedji S & Olaniyan O. 2011. UNESCO International Institute for Capacity Building in Africa (IICAB)

<http://www.eng.unesco-iicba.org/sites/default/files/Fundamental%20series%202.pdf>

This booklet was written for those engaged in or preparing for teacher education planning and management in the region and for others less specialised, such as senior government officials and civic leaders who seek a more general understanding of teacher education development and how it can help in the over-all development of education. It examines, in detail, the challenges facing many countries in the region in ensuring that millions of children, especially in rural areas, can access a quality education. As part of meeting this challenge, the authors explore the role of teacher education (both pre-service and in-service) and stress the need for Colleges of Education to develop, promote and expand innovative methods for training teachers and administrators, including offering cost-effective distance learning courses. Government have an important role to play by awarding scholarship or grants to

attend distance learning programmes.

Exploring the backgrounds and shaping of beginning student teachers in Ghana: toward greater contextualisation of teacher education

Akyeampong K & Stephens D. 2002. International Journal of Educational Development; 22 (3–4)

<http://www.sciencedirect.com/science/article/pii/S0738059301000645>

Teacher education programs are often quite similar in their framework and content but often lack sufficient reflection on the personal background and the socio-political forces that shape teachers' roles and identity within the systems in which they operate. This paper explores this issue by using Ghana as a case study and discusses implications for its teacher education programs and policies. Key characteristics of beginning student teachers were: weak qualifying grades in two fundamental school subjects, mathematics and English, a waiting period of 2–5 years prior to entering teachers' college, and apparently sharp differentials in trainees' socio-economic background as compared to typical Ghanaian communities. They come to training with rich and varied images of teachers, teaching and the profession, but, in addition, many beginning trainees also express little desire to teach at primary school level, mainly for reasons of status and insufficient fringe benefits. These factors should be taken into more account in the design of college programs and the development of teacher education policies. The paper concludes with a call to teacher education systems, especially in Africa, to look more closely at, and learn from, who comes for training, what they bring with them, and how they perceive themselves in relation to teaching, training and future aspirations.

Learning to teach reading and mathematics and Influences on practice: a study of teacher education in Ghana

Adu-Yeboah C. Undated. University of Sussex draft country report.

<https://www.sussex.ac.uk/webteam/gateway/file.php?name=report-ghana-1july2011.pdf&site=320>

The Teacher Preparation and Continuing Professional Development Project (TPA Project), was set up to fill the gap in knowledge about how the initial and continuing education of teachers impacts on the practice of teachers. This paper reports on the research that has been carried out in Ghana. Because of the extreme importance of early reading and mathematics for future progress, it focuses on the preparation that teachers who teach in the lower primary grades receive and what support is available through CPD and other routes to teach these subjects. A central issue is whether the process of learning to teach reading and mathematics at lower primary level draws attention to, and emphasises the kind of teaching competencies known to be important for developing lower primary school children's abilities to read and understand basic mathematical concepts. The research built up a comprehensive picture of initial training and CPD related to reading and mathematics in the early years of primary school. The findings are used to suggest feasible ways in which teacher preparation in Ghana might be improved.

The language component of the teacher training programme places more emphasis on English Language studies than on pedagogical knowledge and skills for teaching. Although reading forms part of the coursework for every semester's work, this appears to be related much more to the requirements for teaching upper primary and junior high school level than for lower primary. The curriculum assumes that the knowledge and skills that trainees would acquire will be equally applicable for lower primary. Moreover, the methodology course in the second year appears overloaded given the timeframe for covering all the topics.

The report found that recommended teaching strategies are those that give priority to problem-solving, decision making, critical and reflective thinking. It also indicates that student-centred and mentoring approaches will be used in some cases, with the lecture method or unilateral interaction approach adopted in very few cases. Again, it states that special emphasis will be placed on practical and tutorial. The assumption is that trainees would be trained to view teaching as a problem-solving activity in which reflective practice is at the core. With these suggested teaching strategies, it would be expected that the teacher training classroom would encourage trainees to be actively involved in the learning process in order to arrive at practicable pedagogies for envisaged problems, with the teacher as a moderator or facilitator.

Teacher training focuses much of its attention on mathematics subject content and treats the methods of teaching mathematics as more or less a secondary component where the emphasis is on trainees learning specific methods linked to topics in the school curriculum. Although tutors, trainees and newly qualified teachers recognise the value of studying school curriculum materials especially the basic mathematics textbooks in use in the schools, they all admit not being able to do so at college level. Because of the amount of time spent on teaching subject content matter, not much time is left in the college curriculum to study the school materials. Besides, the methodology for studying these materials is not provided, which means even if there was time to study them, how this might be done is not documented in training manuals and textbooks. The literature suggests that teachers who have had opportunity to study school mathematics materials understand it better and are able to teach more effectively from these books.

Learning from the Best: Improving Learning Through Effective Teacher Policies

Vegas E, Ganimian A & Jaimovich A. 2012. World Bank, Washington, DC

<https://openknowledge.worldbank.org/bitstream/handle/10986/10057/673450Revised00Notes0Teachers0Press.pdf?sequence=1>

An education system is only as good as its teachers. Both developed and developing countries have increasingly become concerned with increasing the effectiveness of their teachers. Successful education systems achieve the eight SABER-Teacher policy goals in different ways, but they all produce superior student and teacher performance. The World Bank has studied top-performing systems. These systems are particularly effective at attracting the best individuals to the teaching profession and preparing them exceptionally. Once teachers enter the profession, the system grants them ample discretion to decide how to best achieve superior student performance and focuses on supporting them rather than trying to steer them in any particular direction. Finland provides a good example of this type of system. These systems also place considerable trust in teachers. Such systems are built on the notion that excellent teaching is not the responsibility of a single instructor, but rather, of the profession as a whole. Thus, they institute mechanisms that foster collaboration and encourage teachers to hold their peers accountable for the quality of their work. Shanghai, China, offers a good example of this type of system. These systems exert tight control over teachers' daily work in the classroom. They provide teachers with detailed guidelines, closely monitor the execution of these guidelines, and use multiple incentives to reward outstanding teaching. At the same time, accountability mechanisms tackle poor teacher effort and performance.

6. Organisation and reform of Colleges of Education

Policy initiatives for change and innovation in basic education programmes in Ghana

Kadingdi S. 2004. Educate; 4 (2)

<http://www.educatejournal.org/index.php/educate/article/view/35/31>

Using an historical perspective, the recent history of educational policy making in Ghana is examined. Three periods or phases are identified corresponding to the situation prior to Independence, the period between 1951 and 1986 and the reforms instituted in 1987 and the years that followed. Despite the willing cooperation of various donor agencies and the availability of resources, progress has been limited. The policy and contextual reasons for this comparative lack of progress are examined in turn. The paper concludes with what can be learnt from these attempts at reform and suggests that, whilst the issues involved are complex, greater attention needs to be focused on the training and support of teachers in their classroom role rather than focusing on the provision of resources. Helping teachers to understand the desired changes in their practice and the need to make pupils independent learners, coupled with reforms of teacher training and support, and the nature and quality of teacher continuing professional development, can all be seen as key ways in which further progress may be made.

The Upgrading of Teacher Training Institutions to Colleges of Education: Issues and Prospects

Newman E. 2013. African Journal of Teacher Education; 3(2)

<https://journal.lib.uoquelpf.ca/index.php/ajote/article/view/2728/3129>

In 2008, 38 publicly-owned Teacher Training Institutions (TTIs) that offered certificate programs to prepare teachers for basic schools in Ghana, were elevated to tertiary status and re-designated as Colleges of Education (COEs) to offer tertiary programmes. Since the elevation and re-designation of TTIs as Colleges of Education, the institutions have faced various challenges which threaten the consolidation of their status as tertiary institutions. These challenges which border on governance, regulation, management, autonomy of the Colleges among others, must be critically examined and addressed to enable the institutions to discharge their mandate effectively. This paper examines the challenges and prospects of Colleges of Education as they evolve into tertiary education institutions.

The elevation of TTIs to Colleges of Education to enhance the training of teachers bodes well for the education sector in Ghana. Indeed, the preparation of highly skilled teachers is crucial for guaranteeing quality outcomes in basic education. The foregoing analysis has shown that various challenges militate against the smooth evolution of Colleges of Education as tertiary education institutions.

The autonomy of Colleges of Education should be strengthened to foster managerial and leadership innovation in initial teacher preparation. This means that persons with experience in governance of tertiary education institutions should be appointed to “chaperone” the institutions as they make the transition from non-tertiary to tertiary institutions. Additionally, the senior management staff of the Colleges should be equipped with the skills required for managing tertiary education institutions. The National Council for Tertiary Education should assist in building the capacity of the governing councils to enhance the knowledge of the members in governance of tertiary education institutions. The Council should organise training programs to build the managerial capacity of the senior management staff of the Colleges.

The National Council for Tertiary Education should strengthen its own capacity regarding regulation and supervision of Colleges of Education. Policies and standards and norms should be developed as a matter of urgency to facilitate the effective monitoring and evaluation of developments in the Colleges.

The provision of section 19 of the Colleges of Education Act , 2012 which stipulates that statutes enacted by governing councils of Colleges is subject to the approval of the Minister of Education would undermine the autonomy of the institutions and delay the

implementation of decisions of the governing councils. It will also lead to political interference in the governance and management of the Colleges.

Additionally, the provision of section 4 of the Colleges of Education Act, 2012 which provides that governing councils of Colleges of Education should “ensure that basic and action research form part an integral part of teacher education to promote quality teaching and learning in the classroom” appears far-fetched. Colleges of Education are operating at level 5 of ISCED classifications and they do not possess the human and material resources necessary for the conduct of basic research. The Colleges should not expend their limited resources on the conduct of basic research. Indeed, the nation would be better served if Colleges of Education are declared as teaching institutions to foster the focusing of the institutions on their core mandate of preparing teachers for basic institutions. Notwithstanding the foregoing, the capacity of the institutions should be built to enable them to conduct action research to enable the teachers to codify their practical experiences.

In spite of the current practice regarding the assignment of specific subject areas to Colleges of Education to facilitate the preparation of generalist and specialist teachers to meet national development goals, section 4(b) of the Colleges of Education Act provides that a College of Education shall, “decide on the subjects to be taught based on their special relevance to the needs of the educational system ...and national development.” If section 4b of the Colleges of Education Act is implemented by individual colleges, the balance of supply of specialist and generalist teachers could be upset to the detriment of the educational system. It is the view of the present writer that the review of programs offered by Colleges of Education should cover the whole Colleges of Education subsector and take into consideration the resource endowment and the market and geographic scope of each institution.

The foregoing analyses provide the bases for reviewing the Colleges of Education Act, 2012 to remove ambiguities regarding the autonomy of colleges of education as well as having firm measures for ensuring the preparation of teachers with different specialties to meet the needs of basic schools in Ghana.

The inability of Colleges of Education to enroll all qualified students as a result of government’s mandatory admission quota for the Colleges is a draw-back on the nation’s attempts to prepare adequate number of teachers for the basic education subsector, considering the fact that the Ghana Education Service has employed many untrained teachers due to inadequate number of trained teachers. For instance, data available at the Ministry of Education shows that only 44.8% and 66.3% of kindergarten and primary school teachers respectively possess the requisite qualifications (Ministry of Education, 2012). Additionally, some principals have claimed that if given the chance they could enroll more than the present number of students. For instance, the Principal of Enchi College of Education was reported to have claimed that the college could admit more 500 students but it has been limited to 170 students as its quota (Daily Graphic, 2013). In this regard, the Government of Ghana should consider allowing the colleges to enroll a percentage of qualified applicants who could not be covered by subsidies to enroll as fee-paying students.

Other pertinent issues that must be addressed to enable to discharge their functions effectively regard the poor state of the infrastructure and the low qualifications of majority of teachers in the Colleges. Thus, it is recommended that the Government of Ghana should set up a special fund to provide more infrastructure and equipment for the Colleges. Teachers of the colleges should also be assisted by the Government to acquire qualifications required for teaching in tertiary institutions.

The transition of Colleges of Education from post-secondary non-tertiary institutions to tertiary institutions has been long and arduous. The process was started in 2008 and it seems that it will not be completed soon. The words of Reverend Sister Mante, the Vice-Principal of Our

Lady of Apostles of Colleges of Education, sum up the present situation of Colleges of Education of the Colleges as follows:

We are neither firmly entrenched as tertiary institutions nor are we still regarded as post-secondary non-tertiary institutions. We are between the two. Even though we have been placed under the National Council for Tertiary Education for about four years, the payroll of the staff of the Colleges and promotions are still being supervised by the Ghana Education Service.

The elevation of TTIs to Colleges of Education to bodes well for the education system in Ghana. Stakeholders (Ghana Education Service, National Council for Tertiary Education and the Ministry of Education) should collaborate to expedite the finalisation of the transition Teacher Training Colleges to Colleges of Education to foster the preparation quality teachers for the pre-tertiary sector and remote ambiguities regarding the current status of the colleges.

In fact, the need for the strengthening of Colleges of Education in order to diversify tertiary education in Ghana cannot be overemphasised. Due to the change in the duration of secondary education from four years to three years in 2008 after a change in political administration in Ghana, has resulted in two cohorts of secondary school graduates whose sheer numbers are beyond the capacity of the nation's universities and polytechnics. This calls for the strengthening of Colleges of Education through the provision of financial support, to enable the institutions to acquire the requisite human and material resources to foster the positioning of Colleges of Education as attractive options in tertiary education and offer attractive alternative pathways to tertiary education for secondary school leavers.

Meeting the Challenges of Education in the Twenty-first Century (Report of the President's Committee on Review of Education Reforms in Ghana).

Government of Ghana. 2002. Accra: Adwinsa Publications.

[http://www.moe.gov.gh/docs/Challenges\[1\]-Educational%20Reforms%20%28Jophus%29.pdf](http://www.moe.gov.gh/docs/Challenges[1]-Educational%20Reforms%20%28Jophus%29.pdf)

Fifteen years after the major reforms of the educational system in Ghana, His Excellency the President has found it necessary to take stock of what has happened in education, and based on that, as well as current developments in the global world, chart a new path for the future. This report is the outcome of the initiative. The Report is intended to meet the focus of education within the context of human capital formation and respond to the nation's development needs in this era of globalisation.

The section on Teacher Education covers initial teacher training at both the Teacher Training Colleges and Universities as well as continuing professional development.

In pursuance of the objective of improving the teacher education sector, the Ministry of Education has since the 1990's embarked upon some reform activities with regard to the structure and content of teacher education in Ghana. These reform activities constituted the basis for further discussions in the year 2000 culminating in the publication of two volumes of the document: Direction for Basic Teacher Education.

Regrettably, the implementation of these reforms has failed to make the issue of teacher quality and its development the cornerstone of the strategy to improve teacher education in Ghana. Yet, it is known that no educational reform can succeed without a credible program of teacher training and orientation. The reform of schools should, therefore, be implemented concurrently with the reform of teacher education.

The following are some of the fundamental weaknesses in teacher education, which need to be addressed:

- Teaching suffers from what has been described as 'chronic prestige deprivation'. The morale of teachers is low due to poor salaries and lack of incentives. Their commitment to the teaching profession is therefore weak;
- There is disjuncture between theory as taught in teacher education institutions and practice in the field;
- Teachers exhibit weak performances in the fundamental basic subjects such as Mathematics, Science and English Language;
- There is disconnection between schooling (the needs of schools) and teacher education (the preparation of teachers) that deprive teacher education of its mission;
- Teachers have never been charged with the stewardship of our schools. Most of those admitted to TTCs have very weak grades. This is because of the unattractiveness of teacher education programs and teaching repel excellent students.

The following recommendations are made:

- Government should provide better remuneration and incentives to teachers in order to attract more qualified students into teacher training colleges;
- The MOE/GES (Ghana Education Service), in collaboration with the universities, should ensure that more females are attracted into teacher education and the teaching profession, through the provision of strategies such as access courses, etc;
- The practice of District Assemblies sponsoring students into teacher training colleges should continue but should be streamlined and expanded;
- To improve the quality of the current certificate program, the entry requirements to teacher training colleges should be comparable to those of the universities and other tertiary institutions. The Ministry of Education, in collaboration with UCC (University of Cape Coast) and UCEW (University college of education of Winneba) should organise access courses for those with lower qualifications.

Reform as hybrid model of teaching and teacher development in China

Paine L & Fang Y. 2007. International Journal of Educational Research; 45 (4–5)
<http://www.sciencedirect.com/science/article/pii/S0883035507000213>

Efforts beginning in the 1990s to raise the qualifications and quality of China's teachers have brought about new regulations, standards and systems of accountability. Reflecting broader economic, social and political changes, new policies have moved to create more standard definitions of teacher quality and common forms of accountability. Yet what seems like a process of global convergence occurs in interaction with the persistence of more organic structures that have long been part of China's teaching cultures. Chinese educators appear to be constructing hybrid models that rely on insider and outsider expertise.

Contradictions and tensions in the place of teachers in educational reform: reflections on teacher preparation in the USA and Namibia

Zeichner K & Ndimande B. 2008. Teachers and Teaching: theory and practice; 14 (4)
<http://www.tandfonline.com/doi/abs/10.1080/13540600802037751#.VNnw50esURo>

This paper examines recent education and teacher education reforms in the USA and Namibia and analyses two tensions that have been a central part of debates about teacher quality and teacher education in many parts of the world: whether teachers should be prepared as technicians or as reflective practitioners; and whether teachers should be prepared for teacher-centered or learner-centered instruction. Although the USA and Namibia are very different countries in size, economic development, and in numerous other ways, the authors argue that their national governments, like many others, have chosen to follow similar paths in reforming their K-12 and teacher education systems. Both countries demonstrate an emphasis on the investment of scarce resources in constructing and maintaining elaborate accountability systems by preparing teachers to meet externally prescribed standards to produce good standardised test scores. The paper argues that this approach, tied to a technicist view of teaching and teacher education, is misguided.

An Evaluative Study of a Distance Teacher Education Program in a University in Ghana

Sampong K. 2009. *International Review of Research in Open and Distance Learning*; 10 (4) <http://www.irrodl.org/index.php/irrodl/article/view/725/1317>

This study evaluates a distance teacher education program in the University of Cape Coast, the premier teacher education institution in Ghana. The study involved comparing performance data of the program as perceived by students and faculty/administrators to standards prepared from the program's design. Performance data was obtained by administering two survey instruments to a random sample of students and faculty/administrators. Discrepancies between performance and standards were reported. The study concluded that although there were some discrepancies between program standards and performance the program is fulfilling its purpose of upgrading the professional and academic performance of a large number of teachers in the public K-8 schools in Ghana.

7. Effective Colleges of Education

High-Level Experts' Meeting on UNESCO's Teacher Training Initiative for Sub-Saharan Africa

UNESCO. 2005. UNESCO Headquarters, Paris, France 19-21 October
<http://unesdoc.unesco.org/images/0014/001437/143738e.pdf>

This paper reports on the high level The High-level Experts' Meeting on the UNESCO Teacher Training Initiative for sub-Saharan Africa (TTISSA) which was held at UNESCO Headquarters in Paris from 19 to 21 October 2005. Its purpose was to elaborate a work plan for strengthening teacher training institutes for implementation in 17 countries. The countries concerned were Angola, Burkina Faso, Burundi, Cape Verde, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Ethiopia, Ghana, Guinea, Madagascar, Niger, Nigeria, Sierra Leone, Tanzania and Zambia. The paper highlights some of the general problems facing these countries in teacher training and in particular the challenges facing higher education institutes with the responsibility for teacher training. These include:

- a) The lack of flexibility in the training structures and programs
- b) a shortage of professional teacher trainers
- c) The lack of a consistent recruitment criteria and course structure, which differ according to the training institution concerned
- d) The existence of various types of teacher training institutions, which reflect differences in operation, type of management and status
- e) A shortage of budgeted posts in higher education

f) Outdated and traditional pre-service teacher training curricula

The experts felt that all of these issues revealed a need for better coordination of the functions and operation of higher education structures responsible for teacher education. The Initiative was designed to take action to improve teacher training institutions in direct relation to the commitments to attain the goals of Education for All (EFA) and to reduce poverty. To achieve this and ensure teacher training institutes were more effective, the initiative worked to (a) reshape policies to address issues of enrolment, status and working conditions, (b) improve institutional capacities and (c) improve the quality and coherence of teacher training including developing new curricula to take account of new needs and changes in the learning population such as literacy, sustainable development, AIDS prevention and treatment and the use of new technologies in education, and teaching methods. This they believed would result in the improvement of teacher quality as measured by the number of teachers with a certified basic level, a good level of performance and an end to the shortage of teachers.

Teacher Development: Making an Impact

Craig H J, Kraft R & Du Plessis J (1998) World Bank and USAID

<http://documents.worldbank.org/curated/en/1998/11/442402/teacher-development-making-impact>

Although somewhat dated, this paper is very useful. Using material from case studies in countries such as Botswana and Namibia as well as additional research literature it presents key lessons learned about what makes successful pre-service teacher training and colleges of education. With respect to the content of the course, the main lessons learned is that to be effective, colleges of education should provide preparation in the following areas (a) subject matter the trainees will teach (b) some basic strategies for how to teach that subject matter (c) verbal competency in an appropriate language of instruction (d) some instructional materials in an appropriate language for learning (e) knowledge of how to use these materials (f) some basic classroom skills concerning managing students and the learning environment, and (g) basic skills in observation and reflection. Consistent with other studies is the finding that the length of the program is not an important factor but rather success depends on how the courses are structured and what support accompanies it rather than how long they are.

The evidence also shows that the best colleges offer a range of alternative and flexible initial training programs that might be considered under differing circumstances and can match the local demands and conditions available so more teachers can quickly be placed into schools. All the routes into teaching (including these non-traditional forms) should be accredited. Successful colleges of education make the effort to make available up-to-date materials and facilities including information on national education reforms, curriculum materials, instructional resources, information, and communication technologies. Information on national education reforms are quickly integrated in to the curriculum. Finally, the quality of the teacher educators is important. Whatever the qualifications and experience of these staff, the evidence indicates that to be effective they should have a clear concept of how adults and children learn best, are able to impart subject pedagogies and model good practices in their own teaching.

Teacher training in Ghana – does it count?

Akyeampong K. 2003. Multi-Site Teacher Education Research Project (MUSTER) - Country Report One

<http://ageconsearch.umn.edu/bitstream/12867/1/er03049b.pdf>

An important objective of recent education reforms in Ghana has been to improve access and participation in basic school education, and enhance the quality of teaching and learning

outcomes. Both have implications for teacher training: improving access and participation means more teachers have to be trained; enhancing quality of teaching and learning means improving teacher quality through more effective training. The evidence produced by the MUSTER studies suggest that Ghana needs to rethink seriously its teacher training policies if the projected goals of basic education quality are to be met. Traditional practices are grossly insufficient to meet the challenges of producing the quantity and quality of teachers needed to deal with the changes expected in basic schooling in 21st century Ghana. Cumulatively, the evidence gathered by the MUSTER studies point to the need to take a serious view of the methods of teacher recruitment, incentives to make teaching attractive especially at the primary level, and greater emphasis on continuing professional development programmes provided through structured institutionalised INSET and a mandatory internship programme for beginning teachers.

In reality, what will transform teachers into effective practitioners may not just be simply the result of effective curriculum planning and realisation, but must include the support of other policies that together work in concert to promote positive change in becoming a teacher. For example, it is clear that most beginning teachers find the early years of teaching quite difficult, mostly because of inadequate professional and social support, e.g. the late payment of salaries, accommodation needs and lack of proper induction into teaching. Therefore, beginning teachers often find themselves in a “sink or swim” situation that could further deepen disappointment with teaching, especially primary teaching in rural areas. Policies need to be enacted that seek to support the professional and socio-economic well-being of new teachers and to foster greater commitment and interest in teaching. Even if the benefits are not sustained, at least for the few years that they remain in teaching their energies will be directed more towards helping children learn than focusing on survival.

Finally, the complexity of the changes that might be occurring in becoming a teacher suggests that all the training needed to become an effective teacher is not located at the college level. There is the need, as others have observed, to “conceptualise the content of learning to teach and to sort out what can best be taught and learned at the college level prior to teaching, what can best be learned through guided practice in someone else’s classroom, and what should be learned through structured induction support, and what depends on learning from teaching over time”.

In conclusion, although it is important for Ghanaian teacher training to make a significant impact on student teachers that reflects the needs and realities of teaching, other policies and practices are essential to promote teacher commitment and development. Evaluating the overall evidence regarding changes in becoming a teacher, it can be concluded reasonably that teacher training may only make a limited difference even under the most effective curriculum planning, because of the impact of other forces that influence how teachers behave and what they do in real professional settings. Thus, quite apart from improving the curriculum to make it more practice-based, our conceptualisation of teacher training needs to expand and, critically, to include systematic professional support for beginning teachers to sustain the positive influence of training.

Quality Assurance of Teacher Education in Africa

Sanyal B. 2007. UNESCO/IICBA

<http://www.eng.unesco-iicba.org/sites/default/files/Fundamentals%20of%20Teacher%20Education%20Development%20No5.pdf>

Although quality assurance for higher education has been a matter of concern for a long time and quality of teacher education in Africa has been a matter of concern for many development agencies recently, mechanisms of quality assurance of teacher education requires more focussed attention. This booklet attempts to contribute to bridging the existing

knowledge gap. It starts with the evolution of the concept of quality of education in general and goes on to discuss the teachers' role in improving the quality. It highlights indicators for identifying effective teachers and the factors that determine the quality in teacher education so that the appropriate mechanisms of assurance could be derived to from these factors. The booklet identifies three mechanisms for quality assurance of a teacher education institution in terms of programme or as a course. It discusses in details, the implementation of the process of accreditation in the context of teacher education at different levels specifying the criteria of accreditation, giving the steps to set up a quality assurance agency and its management including the challenges of the accreditation process. It has also collected few available examples of quality assurance of teacher education in Africa, which are limited to quality audit and quality assessment. These form a part of the initial process of accreditation. The booklet attempts to improve upon the mechanisms of quality assurance through accreditation to derive the benefits it could provide. It concludes by recommending a set of strategies for the government, the accreditation agency and the teacher educational institutions for successful implementation of the accreditation process for quality assurance of teacher education in Africa.

Teachers and Educational Quality: Monitoring Global Needs for 2015

Motivans A, Smith T & Bruneforth M. 2006. UNESCO Institute for Statistics (UIS)

http://www.ungei.org/resources/files/unesco_TeachersReport.pdf

Looming teacher shortages in developing countries have sparked debate on the resources required to achieve international education goals by 2015. This report evaluates the status of teachers and teacher quality worldwide in order to better inform this debate. It also examines how the international goals can be attained by forecasting the teacher supply required to reach universal primary education while recognising some of the specific constraints facing countries. But the quantity of pupils and teachers depend, to a large degree, on the quality of education. Indeed poor education quality partly explains why in some less-developed countries nine out of ten children may enter school, but only three children complete their primary education. In response, the report examines teacher quality through cross-national data on teacher qualifications, knowledge of subject matter and continuous professional development. By highlighting trends in teacher quantity and quality, this report explores the policy implications of bridging gaps between the two. It also compares the strengths, shortcomings and imbalances of recruitment and deployment policies around the world. Data on less-developed countries, in particular, are presented from a wide range of sources, including administrative data, student assessment studies and a special data collection on primary and secondary teachers in 25 countries. The report aims to inform policymaking and uses international benchmarks to monitor change.

Evaluating Strategies Used To Incorporate Technology Into Preservice Education

Kay R. 2014. Journal of Research on Technology in Education; 38 (4)

<http://www.tandfonline.com/doi/abs/10.1080/15391523.2006.10782466#.VNnutkesURo>

This paper is based on a review of 68 refereed journal articles that focused on introducing technology to pre-service teachers. Ten key strategies emerged from this review, including delivering a single technology course; offering mini-workshops; integrating technology in all courses; modelling how to use technology; using multimedia; collaboration among pre-service teachers, mentor teachers and faculty; practicing technology in the field; focusing on education faculty; focusing on mentor teachers; and improving access to software, hardware, and/or support. These strategies were evaluated based on their effect on computer attitude, ability, and use. The following patterns emerged: First, most studies looked at programs that incorporated only one to three strategies. Second, when four or more strategies were used, the effect on pre-service teacher's use of computers appeared to be more pervasive. Third, most research examined attitudes, ability, or use, but rarely all three. Fourth, and perhaps

most important, the vast majority of studies had severe limitations in method: poor data collection instruments, vague sample and program descriptions, small samples, an absence of statistical analysis, or weak anecdotal descriptions of success. It is concluded that more rigorous and comprehensive research is needed to fully understand and evaluate the effect of key technology strategies in pre-service teacher education.

8. Other resources identified

This is a list of other resources which may be useful. Many are from the African context but others are not. In including these, the message is to adapt not adopt.

Teacher Education in Ethiopia: Growth and Development

Ahmad S. 2013. African Journal of Teacher Education; 3.

<https://journal.lib.uoguelph.ca/index.php/ajote/article/view/2850/3254>

Effectiveness of teacher education: State of research, measurement issues and consequences for future studies

Blömeke S, Felbrich A, Müller C, Kaiser G & Lehmann R. 2008. ZDM The International Journal of Mathematics Education; 40 (5)

<http://link.springer.com/article/10.1007/s11858-008-0096-x>

Teachers in Ghana: Issues of training, remuneration and effectiveness.

Hedges J. 2002. International Journal of Educational Development; 26 (1)

<http://www.sciencedirect.com/science/article/pii/S0738059305000763>

Designs for initial teacher preparation programs: an international view

Stuart J & Tatto M. 2000. International Journal of Educational Research; 33 (5)

<http://www.sciencedirect.com/science/article/pii/S0883035500000318>

Evaluation of the Teacher Training Initiative for Sub-Saharan Africa (TTISSA)

UNESCO. 2009. UNESCO, Paris, France

<http://unesdoc.unesco.org/images/0018/001840/184060e.pdf>

Good Policy and Practice in HIV/AIDS education: Pre-service teacher training

UNESCO. 2011. UNESCO, Paris, France

<http://unesdoc.unesco.org/images/0019/001916/191608e.pdf>

Best Practice in Teacher Training

World Bank. 2011. World Bank, Washington DC, USA.

<http://info.worldbank.org/etools/docs/library/241469/PresentationTeachertraining.pdf>

Teacher Preparation and Continuing Professional Development in Africa (TPA)

Centre for International Education (CIE). 2014. Centre for International Education, University of Sussex, UK

<http://www.sussex.ac.uk/cie/projects/completed/tpa/roverview>

Launched in early 2010, this now complete 18 month research project - funded by the Hewlett foundation - aimed to determine how trainee teachers learn to teach basic reading and mathematics in Mali, Senegal, Ghana, Kenya, Tanzania and Uganda. It also sought to identify how teachers, in their first year of teaching, teach early reading and mathematics, and what professional development programmes exist for practising teachers in these countries.

The project also aimed to shed light on the impact that these programmes had on the teaching practice of current participants and recent graduates, as well as on student learning

outcomes. The research identified facilitating factors and constraints that influenced impact, and cost effectiveness of the programmes in terms of trainee teachers' professional learning and the quality of instruction they offer.

The following resources were listed as relevant for Ghana, but could not be accessed:

Teacher Education in Ghana: Challenges and Prospects.

Aboagye J K. 2008. Developments in Basic Teacher Education in Ghana. In PRINCOF. Kumasi: Greenland's Concept.

Teacher Education in the Context of Ghana's 2007 Education Reforms.

Anamuah-Mensah J. 2008. Developments in Basic Teacher Education in Ghana In PRINCOF. Kumasi: Greenland's Concept

Improving the Practical Aspect of Pre-Service Teacher Education in Sub-Saharan Africa: Issues of Conceptualization, Planning and Management.

Cobbold C. 2009. In F.K. Amedahe (Ed.). Teacher Education Conference Proceedings July 2008. Cape Coast: Faculty of Education, University of Cape Coast.

Financing Teacher Education in Ghana

Obeng E A. 2008. In PRINCOF. Developments in Basic Teacher Education in Ghana. Kumasi: Greenland's Concept.

Teacher Retention in Ghana: The Way Forward.

Nsawah M K. 2008. In PRINCOF. Developments in Basic Teacher Education in Ghana. Kumasi: Greenland's Concept

The Transition of Ghanaian Training Colleges to the Tertiary Level: Prospects, Challenges and the Way Forward

Opape J A. 2008. In PRINCOF. Developments in Basic Teacher Education in Ghana. Kumasi: Greenland's Concept.

Induction for Teacher Retention: The Missing Link in Teacher Education Policy in Ghana.

Cobbold C. 2007. Postscript 8 (1)

Supporting the Continuing Professional Development of Teachers in Sub-Saharan Africa: An Integrated Teacher Education Model.

Cobbold C & Dare A L. 2009. In Amedahe F K. (Ed.). Teacher Education Conference Proceedings July 2008. Cape Coast: Faculty of Education, University of Cape Coast.

9. Additional information

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