



**PROFESSIONALISM AND OPEN EDUCATIONAL RESOURCES
[OER] IN AFRICA: TEACHER PROFESSIONAL AND
PROFESSIONALISM DEVELOPMENT VIA OER**

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Abstract

Teacher professionalism developments have eluded the Ghanaian teacher. Evidence suggest that the profession's practices of teacher professional, professionalism and professionalization [TPPP] in Ghana is at the pre-professional age. As no policy and or law exist to demand TPPP developments and standards. For that matter, self-study and teacher/institutional collaborative efforts were thought to be two ways of attaining self-TPPP upgrade via OER (open educational resources) material. Interestingly, while OER resources abound in the virtual world its concept and operations were barely known to the Ghana University and higher educational teacher. For, teacher professionalism at University and higher educational level also remains unknown.

Key words: University teacher, professional, teacher professionalism, professionalization, open educational resources

Andy Hargreaves (2000; and OER resource) establishes that pressures and demands in some countries for students to learn new skills such as teamwork, higher order thinking and effective use of new information technologies, call for new styles of teaching to produce these skills. Agreeably, it is interesting to note that this observation implied that more and more teachers now have to teach in ways they were not themselves taught in both content and methods. Teachers, he urged, are to work more

with their colleagues and access the expertise necessary to improve themselves for their tasks. Against that background, UNESCO's (2001) assertion that the need for more and better teachers, targeted for making quality education available for all by 2015 through open and distance education has been severely challenged for its teacher self-confidence, creativity and change in attitude on the job; as no single university in Ghana teaches adult-centered/andragogy even via the traditional education system. This leaves tertiary teaching and learning as an open amateur matter calling for professionalism solutions.

Hargreaves (2000) concept of teacher professionalism developments as having gone through four historical phases, namely: the pre-professional age, the age of the autonomous professional, the age of the collegial professional and finally, the age of post-professional/postmodern. That puts Ghana's at the very first age of pre-professional. It was in the verification process that hints popped up that the University teacher was not familiar with open educational resources concept. This study was born. At the end of both independent studies it was found that the key finding of the other could be built upon by adopting OER. Implying that understanding and using OER could be part of the solution to teacher professionalism developments. This work, therefore, shares its intention and conceptual framework, findings and conclusion beginning with the purpose of the study. Method and approach to this study are explained before a brief Professionalism, Professionalization and the Pre-professional Age of Teaching is discussed. The next section takes on TPPP in Ghana. ODE, OER and eLearning as an Alternative but Complementary Remedy are suggested with critical justifications. The findings, discussion and conclusion are then posited.

Purpose of the Study

In Ghana, there is a well-established system for pre-University teacher pre-service development. Unlike the University and other higher education teacher who is left to be on his/her own for professional development. There is neither government/university nor teacher associational policy found actively directing and or demanding university TPPP development and practices. The government, university teachers and other stakeholders of tertiary education remain silent on the matter leaving Ghana behind the rest of the educational world and teacher developments. Nonetheless, "professional" bodies in the public sector, especially, teachers and doctors' activism and frequent antagonism with the government on pay and work condition remain dominant and rampant.

Hargreaves (2000) provides both historical and future developments of TPPP. Not surprisingly that Mukhtar (2015), ascertained and confirmed from Hargreaves typology that Ghana's TPPP is found at the pre-professional age with its characteristic features of lecturing, notes taking and rote learning among others to affect quality of education negatively. As a result, this work would be to find out how self-TPPP could be encouraged by the use and reuse of OER material and ODE due to time constraints

of the University teacher. It is to give impetus to Hargreaves (2000) argument that, given the growing diversity of classrooms and of students' learning needs within them, it is important to confront these images and discourses of professionalism that deny the difficulty of teaching.

Method and Approach

From the review and reflection on current trends in Ghana's university culture and postmodernism it is explicit that gaps exist in aspirations of TPPP. This study had its original design targeting three [3] university teachers: two [2] being public/government and one [1] privately owned where teacher education is the focus. Together 600 teachers [expecting 200 from any one] were surveyed by email via University Teacher Association platforms for their views and experiences as to how they have evolved and grown as professional university teachers. This was to say: the individual teacher responding to Freeman's (1941; 293) classic question: 'Am I a good teacher, am I well-trained for my task, what should I do to improve my professional ability?' Question were asked as to how teachers were educated, trained and raised, what they did in and out of the classroom in order to facilitate and or promote teaching and learning journeys covering the construction and use of OERs. For some unknown reasons, that strategy failed to work. Even known individual teachers contacted on telephone as additional information or reminders yielded 4 out of 15 contacted, translated into 26.6 percent or 0.66 percent of the total expectation 600.

Following this failure to survey, change was made for individual lecturers, heads of departments, deans and provost of faculties and schools were contacted purposively for one-on-one interviews. Education schools/faculties were, particularly, enrolled due to their most singular role of being trainers of teachers. Freeman (1941), calls this classical purpose as being the most critical of any education systems; for, a well-trained teacher can go past, to impart successfully from poor or even faulty programmes and organisations. A one-on-one interviews were conducted. An average of 30 minutes was spent for an interview session. In all were 14 respondents as categorized in Table 2.

Table 2: Designation of Interviewees

Designation of Respondents	No Interviewed
Former Vice Chancellor	1
Provost of College of Education	1
Deans	2
Heads of Departments	3
Senior Lecturers	3
Lecturers	4

Total respondents	14
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Few telephone calls were also made to or from respondent for further clarifications. The 4 surveyed material was added to these responses making 18 and analysed. It was revealed university teaching is yet to find its teacher professional paths in Ghana and OER remains unpopular to them.

Professionalism, Professionalization and the Pre-professional Age of Teaching

For UNESCO (2002), Teacher Education has to do a whole range of enabling teachers to develop the potential of their pupils/students by serving as role models; assist in transforming education; encouraging self-confidence and creativity. Also, the need for improving the general educational background of the trainee teachers; increasing their knowledge and understanding of the subjects they are to teach; pedagogy/andragogy and understanding of children/adult learning; and the development of practical skills and competences. The balancing these elements varies in relation to the background education of student-teachers, to the level at which they will teach, and to the stage they have reached in their career as professionals.

Teachers' professional, professionalism and professionalization [TPPP] uniqueness were found in Hargreaves (2000): That it is any attempt at improving status and standing of teaching which are usually presented in the literature in terms of professionalization. 'Professionalism', is improving quality and standards of practice whilst 'professionalization' is improving status and standing. Often, these are presented as complementary. Thus, improving standards invariably filters into improving status. He further points out that over time; teacher professionalism has taken on different meanings as well as develop several stages in its evolution to professionalism in teaching.

Hargreaves pre-professional age found teaching as managerially demanding but technically simple as its principles and parameters were treated as unquestioned common-sense: One learns to be a teacher through simple practical apprenticeship; one improves as a teacher by individual trial-and-error approaches. Critically, teachers were described as being enthusiastic people who knew their subject matter, knew how to 'get it across', and kept order in their classes. They learn to teach by watching others do it, first as a student, then as a student teacher. After that, barring a few refinements gained through trial-and-error, they know how to teach and they were on their own. If one holds to a simple, pre-professional image of teaching, teachers need little training or ongoing professional learning, preparation time is relatively expendable in the sense that the demands of preparation were not so much. For that matter, teachers of this age were virtually amateurs; who carried out the directives of their more knowledgeable superiors.

Furthermore, the most critical historical surviving legacy of the age entailed the basic teaching methods of education were most commonly ones of recitation or

lecturing, along with note-taking, question-and-answer, and seatwork. Traditional, recitation-like patterns of teaching enabled teachers working with large groups, small resources and students' whose motivation was often in question to meet four fundamental demands of the classroom such as maintaining student attention, securing coverage of content, bringing about some degree of motivation, and achieving some degree of mastery. Hargreaves conclusion that needs attention to all stakeholders came as follows: Teachers who felt there is little else to learn in teaching, achieved poorer results in basic skills achievements than their more professionally oriented counterparts.

In the context of pedagogical certainty, professional learning for new teachers was largely seen as a matter of apprenticing oneself as a novice to someone who was skilled and experienced in the craft. In reality, much of that apprenticeship was served in the thousands of hours observing one's own teachers while being in their classes as a student (Lortie, 1975 in Hargreaves, 2000). To this experience was usually added a period of teaching practice or practicum, served at the side of an experienced cooperating teacher. That played significant part of a wider programme of teacher preparation. Hoyle, (1974 as cited in Hargreaves, 2000) described this individual, intuitive and incremental approach to improvement and professional development of teachers as 'restricted professionalism' and it is scarcely any form of professionalism at all.

The child-centered theories increasingly had espoused in Faculties of Education extended their influence into the world of educational practices. Pedagogical expertise is no longer something that could be passed on as an assumed tradition from expert to novice as in the pre-professional age. To many more teachers, as time passes by, pedagogy had become an ideological decision; an object of judgement and choice. Unquestioned routines and traditions were replaced by an ideological conflict between two great meta-narratives of traditionalism and progressivism.

The age of professional autonomy was marked by a challenge of pedagogical choice that was polarized and permissive. According to Hargreaves (2000) these occupational choice of teaching opened up, autonomy and protection. Increasingly, interference had to be guarded against the newly found freedom. For example, the right to autonomy sat on the spread of teacher pre-service education in the universities and the growth of in-service education which was provided by experts to add weight to the claims to expertise. Modernistic models of professionalization in teaching entailing lengthy training period, extending accreditation, and making the knowledge base in teacher education more academic might have propped up the status of teachers in the community and of teacher educators in the university.

The 'licensed autonomy' [soon to be introduced to the pre-University teacher in Ghana] with which this strategy was associated often failed to further the professionalism of teaching in terms of the quality of the work. Implying that teachers lacked appropriate knowledge, skills and attitudes for a modern society rather than that

which Whitiff (2003) calls informed professionalism entailing a new phase when teachers will have appropriate knowledge, skills and attitudes so that unlike the individual autonomy, the government can grant them a greater degree of licensed autonomy to manage their own affairs.

Teacher professional development work of Lee and Fan (2012: 61) found that until the mid-1970s, teachers were regarded as only ‘doers’: implementers of subject content into the curriculum. To them, content was separate from teaching, so ‘how’ to teach and ‘what’ to teach were two different entities until a decade later when Shulman (1986) presented a widely held idea that teachers who are well-educated should have ‘pedagogical content knowledge’. That is, a composition “of both the component of content knowledge in the disciplines to be taught and the component of teaching knowledge”. Huang (2008) also cited in Lee and Fan (2012) declares that learning to teach involves the mastering of specific content and mastering pedagogical knowledge; unlike in the pre-professional age where teachers were only masters of their subject matters (Hargreaves, 2000).

TPPP in Ghana

Following this pre-able professionalism need, it is not clear why Ghana Government had established institutions taking care of only pre-University teacher’s professional development while leaving out the tertiary teacher to chance. The Government Universities [2] and Colleges of Education [38] concerned with teacher education matters focus on primary and secondary teacher developments only. The National Council for Tertiary Education’s [NCTE] (2014) statistics reported a total of 133 tertiary institutions accredited in Ghana with 101 having to do directly with TPPP at the pre-University levels as depicted in the Table 1. Four [4] out of the 51 private institutions are distance education or online (National Accreditation Board [NAB], 2015).

Table 1: Teacher Development Related Tertiary Institution in Ghana

University and Teacher Colleges	Number of Institution
Public Universities [Colleges of Education, Distance and Adult Education institutions]	9
Private Tertiary Institutions (Universities, University Colleges, Tutorial Colleges and Distance Education Institutions)	51(4)

Public Education	Colleges	of	38
Private Education	Colleges	of	3
Total Institutions	Number	of	101

The statistic, 101 and the continuing proliferation of tertiary educational institutions should have prompted the authorities about quality education and TPPP at that level. A review of Ghana National University Teachers Association [UTAG] (2014) Constitution shows that there is no concern about TPPP as the word “professional” fails to appear in the text. Hence the acute need for TPPP and its reflectivity at that level in Ghana. Informed professionalism – a new phase when teachers will have appropriate knowledge, skills and attitudes for teaching and learning.

Meanwhile, a recent study on research governance found that on professional development, 73.7% of the University Research organizations in Ghana indicated that the learning and development needs of staff were catered for but less of pedagogy and andragogy: Although teaching was found incorporated, development needs were addressed through research publication, workshops on research proposal writing, monitoring and mentoring of junior staff, granting of study leave with pay and scholarships to facilitate upgrading of academic status through the pursuit of doctoral programmes, internet access, journal subscriptions, and conference participation. Other incentives for retention included: (a) competitive salary; (b) inclusion of honorarium in the research budget; (c) provision of small grants; (d) book and research allowances; and (e) sponsorship for training programmes and conference participation (Amedahe, Adoo-Adeku, & Hordzi, 2014). Per observation, these are a set of advantage over of the researcher over the ordinary UHE lecturer.

But to Hargreaves (2000), this Western developments of TPPP had resulted from the teacher consciousness supported by social awareness which remains far from Ghanaian and perhaps Africans. A critical need that has been conspicuously overlooked by all stakeholders involved in quality teacher and quality education. Hence the concern of this paper to bring it to the public domain for resolution through integrating OPE and OER, to train the teacher of the teacher professionally.

ODE, OER and eLearning as an Alternative but Complementary Remedy

From UNESCO’s (2016) home page, open educational resources, “OER”, stands for a “strategic opportunity to improve the quality of education as well as facilitate policy dialogue, knowledge sharing and capacity building.” OERs are teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution”. Although it was in 2002 at the UNESCO organized Global OER Forum where the label

“Open Educational Resources” (OER) was adopted, it was Massachusetts Institute of Technology (MIT), 2001 who in an unprecedented move, had released of nearly all its courses on the internet for free access to the public setting the pace for all to emulate including Ghana and Africa.

The William and Flora Hewlett Foundation OER include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials or techniques used to support access to knowledge (OpenStax CNX, [1999] 2016). Implying that OER can either be in the soft or the hard form. But for efficient integration of OER is supported by ICT, effective use of OER in teaching and learning is better enhanced through the adoption of a systematic course design process (Karunanayaka et al., 2015). For example, Amedahe et al., (2014) showed that research output dissemination in Ghana are of three dominant modes, namely: publication in refereed journals (100%), presentation at workshops and conferences (88%) and publication on relevant websites (85%).

Distance education/learning [DE] in Ghana had been beefed up with the lunch of the newly developed e-Learning platform labelled Virtual College of Distance Education (VCoDE) of the University of Cape Coast, College of Distance Education [CoDE], (Oduro, 2015). At the “Online Facilitation and Learning for VCoDE” workshop, Oduro, the provost, drops a critical hint about government’s plan to establish an Open University in the country and the VCoDE could serve as a reference point. At least, in Ghana/Africa, teacher professionalism [TP] and quality education as the definitions above projected are seriously challenged by its own assertion (UNESCO, 2001): That the need for more and better teachers, targeted for making quality education available for all by 2015 through ODE for its teacher self-confidence, creativity and change in attitude on and for the job. Ghana, a member country, had adopted and practiced ODE but have failed to take up this integrational opportunity for its UHE teacher professional development. That means most Ghanaian/African teachers have to seek self and collaborative studies on their own for the new knowledge, new skills, new abilities and experiences as well as collaborative new requirements of the university teacher and the institutional developments.

Perhaps, University of South Africa [UNISA] ODE stands tall on the continent and with high quality OER systematic development and usage covering procedure, material designs, relevant intellectual property strategies, repository site policies and evaluation policies and strategies. For example, UNISA College of Graduate Studies five female active doctoral students studying via open distance learning [ODL] without any experience: Bireda (2015) reports that the female students had no previous experience in ODL. The study found experiences of female doctoral students in their doctoral journey in the areas of academic, psychosocial and home/professional challenges. Students’ concerns fell on the quality of supervision support, inadequate academic skill, nature or system of education, stress, motivation, isolation, balancing

personal and professional life, relationship problems, home and work related concerns. These students were either full or part time lecturers.

That upgraded to a collegial scenario to reflect this paper's intention could mean emulating University of Sri Lanka's model. Thus, in a remedy provision to its own teaching staff weakness in OER development and usage, the Open University of Sri Lanka's Faculty of Education two pronged approach is captivating: Thus, 1) with a professional development course on OER-based e-Learning(OEReL); and, 2) taken on e-Learning platform. Modules in the course incorporated the use of authentic learning scenarios with learning tasks to facilitate capacity building and in a collaborative form.

Thus, the process took care of a whole course approach to capacity building in OER integration into a system with five [5] course modules as follows: Concept and Practices of OER; Search and Evaluation of OER Materials; Licensing and Copyrights; Designing Learning Experiences for OER-based e-Learning and Integrating OER in e-Learning. They were found to be practice-oriented and designed to be of immediate help to the educators as they are need-assessment based. The course design incorporates the use of authentic learning scenarios, peer-based collaborative and cooperative learning, and reflective practice.

Such a module and processes of integrating OER development and teaching to educators and their capacity development to enhance professionalism is encompassing for both its theoretical and practical grounding. These processes put together exemplifies the learning by doing approach capacity building signified in Blooms Taxonomy and Constructivism. In Blooms Taxonomy where learning objectives domains are stated and defined connectedly – cognitive, affective and psychomotor – but often well-disconnected. Often a time, this practice error leaves students passive in the teaching learning process.

Besides, OER's property of use, reuse in unique ways by the learner stuns to a conclusion that this OER principle links up to Vygotsky's 'Constructivism'. That is, the ability of the learner to use his introductory frame of reference or prior learning to adapt new knowledge by building or constructing his own knowledge. Its operating principle permits adaptation of materials mechanism amongst several others. For, that creates constructive roles for students to become active participants in the learning process based on proper instructions. This means both teacher and learner are active participants as teaching and learning are thought to be best done by doing unlike in the pre-professional age characteristics discussed above that promoted passivity in the process. Skill and experience development are enhance in OERs approach. At a reduced cost, flexibility, and work constraints, OER and ODE mode can, therefore, be used to enhance teacher content and professional developments.

Findings and Discussion

Although Freeman (1941) found teacher education and the formation of the teacher as the most Irrespective of this, the study found two key factors as follows: 1) there is no policy/law and or University in Ghana developing tertiary level teachers; and, 2) Teachers were very well informed with ODE and eLearning but not OERs concept and operations.

The November, 2015 Open Educational Resource [OER] Conference in Accra by the World Educators Forum Chapter of Nigeria manuscript submissions and opening data were awaited for the final data collection, analysis and conclusion. This data was critical as it had prompted this study. The International Conference had to draw attention to modern teacher professional development gap which is the attention of this paper. Ghanaian teachers failed to attend despite the relatively well-advertised. Between June and July 2015 brochures and posters were sent to Universities and Higher Educational institutions, particularly, linked to teacher development. Teachers' associations were also informed.

There was enough evidence of unfamiliarity, right at the pre-Conference time of poster and flyer distribution. Questions following glances at the Conference document themed: "Open Education Resources: Development and Expansion in Africa" suggested poor or no knowledge on the theme. "What is open resources" was the most asked. It was the frequency of this question that had spelt out the study. Follow ups on the completion of the questionnaire had attracted the same question. All the teachers interacted with had experienced with at least one non-traditional programme of the University such as adult education, distance education, sandwich programme and so on. They were instructors, supervisors or even coordinators of that which they were involved with. Most interviewees dealt in DE instructors and or supervisors of pre-University teachers. OER remains unknown and therefore unpopular to respondents.

A former Vice Chancellor, Executive Chair of Teacher Education in Sub-Saharan Africa (TESSA) and the chair of Open Learning Exchange, Anamuah-Mensah when interviewed bemoaned the low and slow OER development and practices on the continent which was evident in Ghana. As Vice Chancellor, University of Education, he remembers having organized an OER workshop for his academic staff members. He further regrets the no-attendance of the Accra Conference which he thought of as an opportunity to consort with other African country experiences.

This no-attendance runs contrary to Amedahe et al (2014) claim to research organization incentivization and motivation requirements. For the UHE teacher conferencing on research work is a professional and academic development requirement (Serdyukov and Makhluf, 2014). The University of Cape Coast DE e-Learning platform lunch earlier in the year ought to have set the path right from there to the November, 2015, OER Accra Conference. At least, experts of VCoDE could not have failed to take up this Conference as a follow up and consolidation exercise. Their

websites returned “no results” on OERs. That challenges Amedahe et al., (2014) claim to research output dissemination mode of conferences (88%) and publication on relevant websites (85%) percentages particularly of the teacher educational institutes.

Conclusion

Sparring and learning both familiar and unfamiliar stuff is fundamental to conferencing. Ghanaian teachers missed out on such an International Conference on OER development held at their door step, Accra. Upholding the assertion that distance education may help develop qualified teachers and other educational professionals among others who are also best able to adapt or develop curriculum resources that meet national and international standards but also reflect and integrate local culture and indigenous knowledge remains lip service. Applying indigenous knowledge in OER in eLearning and ODE for teacher upgrade and professionalism is this work’s *raison d’être*. Unfortunately, the Ghanaian teachers failed to turn up at the Conference to share knowledge and experience on ODE, eLearning and OER. Unlike UNISA, Ghanaian UHE websites returned no OER results. Perhaps it was because there is no law or policy appropriately implemented to compel Conference attendance. That single even requires further inquiry. Nevertheless, to align with the developing global trend is to adopt and adapt ODE, OER and eLearning in Ghana and across its borders for the development of University and other Higher Education teachers; also, in preparation of the Open Universities.

References

- Amedahe, F.K., Adoo-Adeku, K. & Hordzi, W. (2014). Ghana. G. Mohamedbhai, G., G. Frempong, A. Addy (eds.) *University Research Governance and National Innovation Systems in West and Central Africa*. Association of African Universities: Accra. Retrieved from: <http://aau.org/content/university-research-national-innovation>
- Bireda A.D. (2015). Challenges to the doctoral journey: a case of female doctoral students from Ethiopia. *Open Praxis*, vol. 7 issue 4, pp. 287–297.
- Freeman, S. A. (1941). What Constitutes a Well-Trained Modern Language Teacher? *Modern Language Journal*, 25, 293–305. <http://dx.doi.org/10.1111/j.1540-4781.1941.tb03010.x>
- Hargreaves, A. (2000). Four Ages of Professionalism and Professional Learning. *Teachers and Teaching: History and Practice*, Vol. 6, No. 2, pp. 151-182.

- Karunanayaka, S. P., Som Naidu, J.C.N., Rajendra, J.C.N. & Ratnayake, H.U.W. (2015). From OER to OEP: shifting practitioner perspectives and practices with innovative learning experience design. *Open Praxis*, vol. 7 issue 4, pp. 339–350.
- Lee, J-Y. and Fan, W-H. (2012). ACTFL Standards and Their Implications to Taiwanese English Teacher Education and Professional Development. *Journal of Education and Learning*; Vol. 1, No. 1; pp. 60-66.
- McGrath, V. (2009). Reviewing the Evidence on How Adult Students Learn: An Examination of Knowles' Model of Andragogy. *The Irish Journal of Adult and Community Education*, p99-110. Retrieved from http://www.lindenwood.edu/education/andragogy/andragogy/2011/McGrath_2009.pdf
- Mukhtar, M. (2015). University Teacher professionalism developments and Practices in Africa: the Ghana approach. A manuscript submitted to *Africa Education Review*
- National Accreditation Board (2015). Distance Learning Institutions. Retrieved from: <http://www.nab.gov.gh/distance-learning-institutions>
- National Council for Tertiary Education (2014). Basic Statistics on Tertiary Education Institutions 2012/2013. Retrieved from: <http://www.ncte.edu.gh/images/pdf/tertiary%20education%20institutions.pdf>
- OpenStax CNX. ([1999] 2016). Introduction to Open Educational Resources. Retrieved from: <http://cnx.org/contents/XDukCaKL@3.1:szZYHIT5@10/OER-Introduction>
- Serdyukov, P. & Makhluif, H. (2014). Growing National University Research Culture: Goals and Steps. *Journal of Research in Innovative Teaching (JRIT)*,
- UNESCO (2002). Open and Distance Learning: Prospects and Policy Considerations. Retrieved from: <http://unesdoc.unesco.org/images/0012/001284/128463e.pdf>
- UNESCO (2001). Teacher Education through Distance Learning: Technology, Curriculum, Evaluation, and Cost. Unesco: Paris. Retrieved from: http://unesdoc.unesco.org/images/0012/001253/12_53_96e.pdf
- University Teachers' Association of Ghana (2014). Constitution and Bye-Laws. Revised Edition. Accra: UTAG

Whitty, G. (2006).Teacher professionalism in a new era. Institute of Education, University of London. Paper presented at the first General Teaching Council for Northern Ireland Annual Lecture, Belfast, March Retrieved from: <http://www.gtcni.org.uk/publications/uploads/document/Annual%20Lecture%20Paper.pdf>