

Rethinking Continuing Professional Teacher Development within the Open Distance Learning framework

V.J. Pitsoe, M.W. Maila

College of Education, University of South Africa

Abstract

Open Distance Learning (ODL), both in the developed and developing countries, has become a tool for human capital development in Continuing Professional Teacher Development (CPTD). In this paper, we argue that the complex nature of the teaching and learning environments calls for radical change in the CPTD – changes enhancing knowledge, skills, attitudes, abilities and empowering teachers as lifelong critical, reflective learners. This paper is aimed at exploring the role of higher education, via the ODL, in the CPTD in the South African education system. It argues that ODL, as an alternative strategy, has potential and a pivotal role to play in effective and efficient CPTD.

Keywords: Open Distance Learning, Continuing Professional Teacher Development, Millennium Development Goals, Education For All, social transformation, Inclusive Education.

1. Introduction

Effective Continuing Professional Teacher Development (CPTD) is an essential ingredient, which ensures that every child in the world, specifically in South Africa, has access to quality education, consistent with with Education For All (EFA) and the Millennium Development Goals (MDGs). Much has been written about the nature of the challenges and problems experienced in the implementation of the National Curriculum Statement (NCS), the poor quality in the training of the teachers and the failure of “one-size-fits-all” or cascade model approach to CPTD, but little, if any, on ODL as an alternative tool for CPTD. Department of Education (DoE) [7] stated that higher education institutions should align their teacher training programmes with national curriculum policies, so as to enable greater alignment between the current (largely generic) teacher education programmes and focus on training required for the successful curriculum implementation, simultaneously in-service teacher training should be directed to where it is most needed.

In the developing and developed countries, ODL is gaining momentum as a tool for human capital development in education. Pityana [18] asserts that, for the developing world, ODL is a promising and practical strategy to address the challenge of

widening access and thus increasing participation in higher education. ODL is increasingly being seen as an educational delivery model that is cost-effective without sacrificing quality. On the African continent, where resources are scarce and higher education provision is poor, ODL has been accepted as a viable, cost-effective means of expanding provision without costly outlay in infrastructure [18].

This paper is aimed at exploring the role of higher education, via the ODL, in the CPTD in the South African education system. It argues that ODL, as an alternative strategy, has potential and a role to play in effective and efficient CPTD. Drawing from the Commonwealth of Learning, social constructivism and CPTD literature, this paper is underpinned by five sections. The first section conceptualises the notion of ODL in the context of CPTD. The second section explores how CPTD fits into the larger picture of the MDGs. The third section investigates the insights into ODL and CPTD. The fourth section reflects on higher education institutions and the advancement of social transformation. The fifth and final section proposes a shift towards an ODL framework in CPTD.

2. Conceptualising the notion of ODL in the context of CPTD

The concept ODL is broadly perceived. For Munro and Pringle [16], ODL describes policies and practices that permit entry to learning, with no barriers or minimal barriers of age, gender or time, while recognising prior learning. It represents approaches that focus on opening access to education and training provision, freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals and groups of learners [19], as well as embracing an increasingly diverse range of education and training activities.

The most important common feature of the methods is that course content, information, data, the learning instructions, as well as the means for evaluating and assessing acquired knowledge are printed or recorded on different media in a methodically elaborated way: for example on printed materials, audio and video recordings, computer memories, DVDs and CDs [13;17]. Unlike conventional education delivery methods, there is no structured face-to-face contact between students and teachers [17].

The role of the trainer is inevitable in the distance learning process, and this role differs fundamentally from that in traditional education [13]. In addition, it is not the trainer who is the main transmitter of course content, since the latter is available on different media prepared by other experts using efficient pedagogical methods. The task of the trainer is to answer questions, to motivate trainees - to promote, facilitate and, if necessary, control their learning - to establish cooperation and interaction between the trainees, as well as to evaluate the acquisition of knowledge. In this educational form, the training process is clearly separated into two parts, carried out in general by different groups of experts. The first one is the preparation of course material, which is a long-lasting activity of expert groups, and the other is the process of course delivery, which is the task of other groups of experts (tutors, course organisers) [13].

Over the years, CPTD practices in the Department of Basic Education involved teachers attending “one-size-fits-all” training workshops, based on the cascade model. To a large extent, this training is based on the behaviourist theory learning model which focuses on input and the transmission of knowledge, or either the cognitive approach involving each workshop participant in manipulating new ideas and establishing links to prior knowledge, reflection and problem-solving. Interestingly, these approaches appear to be unconnected to broad school directions and after the training, there is little, if any, opportunity for support and follow-up at school level. In the majority of cases, the transfer of knowledge from the “service provider” to the school site is limited and teachers have traditionally left such training sessions with a sense of enthusiasm, but with little real understanding or time to consider the applicability of the new ideas to their own classrooms.

In contrast, emerging trends in CPTD indicate that professional learning is strongly shaped by the context in which the teacher practises. This is usually the classroom which, in turn, is strongly influenced by the wider school culture as well as the community and society in which the school is situated. Teachers’ daily experiences in their practice context shape their understanding and their understanding shapes their experiences. The CPTD programmes should be needs-driven [5]. Therefore, the complex nature of the teachers’ training needs calls for a revitalised framework of effective professional development, consistent with research into teacher learning and the emerging paradigm of teaching as an ongoing intellectual pursuit.

Against this backdrop, there seems to be a policy gap. Policymakers and bureaucrats believe that policy is normative and that practice should follow suit. They write mostly from the perspective of policy theory and practice, trying to explain why

practice has gone awry [22]. Research [22] indicates that, rather than policy influencing teachers’ practices, it is more likely that teachers shape policy. That is, teachers interpret, adapt and even transform reforms as they put them into place. Adaptations and transformations are also shaped by the existing school structure and school culture.

3. How does CPTD fit into the larger picture of MDGs and EFA?

Education is a fundamental human right, enshrined in the 1948 Universal Declaration. It should never be an accident of circumstance. Nor is it a privilege to be distributed on the basis of wealth, gender, race, ethnicity or language. (New York, 19 January 2010 - Secretary-General’s launch of the Global Monitoring Report on Education for All).

The above citation captures the basis of the adoption of education as a basic human right in the developed and developing countries, as emerged at the 1990 World Conference on Education for All (EFA), hosted by United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Development Programme (UNDP), United Nations Population Fund (UNFPA), United Nations Children’s Fund (UNICEF) and the World Bank. The participants endorsed an “expanded vision of learning” and pledged to universalise primary education and substantially reduce illiteracy by the end of the decade; and affirmed their commitment to achieving universal education. Like all human rights education is universal and inalienable — everyone, regardless of gender, religion, ethnicity or economic status, is entitled to it.

At the EFA initiative, a broad coalition of governments, NGOs and development agencies committed themselves to six goals, aimed at providing education to “every citizen in every society” by 2015: (1) expanding and improving early childhood care and education, especially for the most vulnerable of children; ensuring that all children and, in particular, girls and the disadvantaged, have access to quality free and compulsory primary education; (2) eliminating gender disparities in primary and secondary education and achieving gender equality in education; (3) ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes; (4) achieving a 50 percent improvement in adult literacy levels, especially with regard to women; (5) offering equitable access to basic and continuing education to all adults; and (6) improving all aspects of the quality of education, as well as ensuring excellence [12]. These goals have far reaching implications on CPTD and inclusive education.

The greatest challenge facing the Ministry of Basic Education in South Africa today is to ensure that every classroom (including inclusive settings)

has an effectively trained teacher, conducting teaching and learning towards EFA goals within the framework of the MDGs. However, in their aim to universalise primary education, the EFA initiative and the related MDGs promote equity and literacy and they have become initiatives that cannot be ignored. In the case of South Africa, government has made great efforts to ensure that the country is well placed towards meeting the EFA 2015 target of ensuring that every learner, especially those in the Foundation Phase of schooling, will have access to free quality education of acceptable quality.

In recent years, the quality and standard of the NCS in schools has come under attack. This quality relates to the quality of CPTD received via the cascade model approach. We argue that there is little evidence that the cascade model has achieved its intended goals. Through effective CPTD, underpinned by the emerging theory and practice in adult education learning theories, quality education could be achieved. Effective CPTD is not possible by simply offering a solid programme of instruction. The process of learning has to consider the construction of knowledge on the basis of a system of existing knowledge, individual characteristics, context, beliefs and traditions of the learner.

The current teacher development policies supporting the curriculum are often too generic and superficial and do not provide the required support for teachers [7]. Lewin [14] argued that, since much continuing professional development is carried out without reference to school needs – often without the knowledge of the school principal – it encourages teachers to move to other careers, rather than improve their effectiveness in their schools. On the other hand, the DoE [6] notes that there lies a challenge in the provision of quality teachers within the education system.

In addition, major challenges are related to the geographic distribution of teachers and the quality of teachers, with rural areas experiencing both qualitative and quantitative shortages. There are also shortages related to specific learning areas, especially Mathematics, the Natural Sciences and Languages. Central to this paper is the assumption that the concepts, “access”, “quality” and “equity” in CPTD should not be seen as separate entities, as they are interrelated. Hence, we argue that access without quality is meaningless and quality encapsulates the essence of equity.

In the light of this background, via ODL, higher education institutions do have a major role to play, cooperating closely with public institutions and civil society. ODL approaches and Information and Communication Technologies (ICT) present opportunities to widen access to quality education, particularly when Open Educational Resources are readily shared by many countries and higher education institutions [21]. For Haughey and Stewart

[10], ICT is a useful medium in the continuing professional development of staff, because of the ready access it offers to high-quality resources and the opportunity it affords for communication. Teachers in a specific subject area: (i) can be linked together to share teaching ideas and resources, (ii) can discuss concerns about students’ lack of learning, or (iii) cooperatively plan to produce a set of materials geared to a topic in the curriculum. This is one way of encouraging and sustaining teachers’ ICT skills. The training offered by institutions of higher education should both respond to and foresee societal needs. The training should include promoting teacher professional development in the curriculum, educational leadership and policy issues. The next section looks into the insights of ODL and CPTD.

4. Insights into ODL and CPTD

CPTD is currently a critical component in the major renewal and redesign of the education system to better meet the needs of today’s society. Despite the volume of literature on in-service professional development, relatively little systematic research, specifically in South Africa, explicitly explored the link between ODL and CPTD. Professional development in any profession has traditionally been considered a one-time affair in one’s career (i.e. pre-service education).

Rather than perceiving learning as the acquisition of certain forms of knowledge, social learning and situated learning perspectives place it in social relationships – situations of co-participation. Learning involves participation in a community of practice. The legitimate peripheral participation provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. In line with this, Commonwealth of Learning [2] contends that CPTD, as a process, should be: (i) intentional, i.e. professional development activities are based on purposes that are linked to broader vision of the profession; (ii) ongoing, i.e. professional development involves ongoing processes and activities, based on horizontal and vertical integration within a dynamic professional field; and (iii) systemic, i.e. professional development activities need to be integrated and related to the system where professional practice takes place.

ODL is one of the fastest growing areas of formal education. It is also gaining grip in expanding opportunities for professional training and non-formal education, particularly in relation to community development and the promotion of “innovation and opportunities for lifelong learning” [16]. Its use for teacher education is therefore a crucial strategy when expansion or quality

improvement is required in the public education system. ODL might even play an increasingly important role during this decade in helping to address the growing shortage of teachers, education administrators and other education professionals with experience in both developing and developed countries [19]. In addition, ODL plays a major role in upgrading the knowledge and skills of teacher educators - both in higher education and in education agencies.

With regard to community development, ODL programmes have the major advantage of reaching many more people than conventional face-to-face programmes and training, while also being highly contextualised [16]. Notwithstanding the challenges facing ODL, as well as growing disparities in wealth and economic opportunities for the previously disadvantaged in developing and developed countries, it is our contention that ODL has great potential for scaling up teacher professional development training in the successful and effective implementation of the National Curriculum Statement Policy. We maintain that it is an innovative and cost-effective approach to CPTD training process. The rapidly growing awareness of the importance of both the quality and quantity of human resources in CPTD, suggests a shift towards a high-quality education and training in theory and in practice. In addition, it calls for new structures for education and training, where higher education institutions would rethink their role in the development of human capital and social transformation.

Research confirms a link between ODL and CPTD. Commonwealth of Learning [2] noted that, in developing countries, ODL is vital as a means towards professional development, as few are educated and trained for specific jobs. ODL often makes use of several different media. Students may learn via print, broadcast, the internet and via occasional meetings with tutors and other students [20]. Hence, the flexibility of ODL is highly valued, as it provides opportunities to all people to access knowledge - including people with special needs, such as those with disabilities. ODL is seen as the strategy via which people can manage their learning within their working and social environment. With the advent of globalisation, the literate need to upgrade their knowledge and the most feasible way of doing this is to develop professionally in their working environment.

Throughout the world ODL has been used for in-service teacher education (INSET) over many years, in different education systems and in diverse social and cultural contexts [9]. While ODL provides wider reach to INSET, it is not without challenges in terms of its effectiveness of impact and its efficiency in delivery. Mayes and Burgess (2010, p. 35) assert that ODL has played an important role in initial teacher

education and training since the United Nations Relief and Works Agency (UNRWA)/UNESCO Institute of Education was established in the 1960s.

In addition, the first decade of the 21st century has seen ODL emerge as an established and embedded part of national initial teacher education and training provision in both developing and developed countries, while it has also been adopted world-wide as a potential solution to a range of teacher education issues, ranging from cost and supply to access, diversity and quality. ODL approaches have been identified as having major advantages over conventional programmes that require residency - in terms of cost, scale and access [15]. ODL could make a substantial contribution to the cost, the numbers of trained teachers and access or reach in relation to geographically isolated and marginalised communities. In this knowledge society, it is more adequate to affirm that social networking tools (such as Facebook, blogs, wikis and Second Life virtual realities), e-mail, web-conferencing and mobile phone technologies are merely complementary to earlier modes of instructional delivery, such as CDs and print media.

5. Higher education institutions and the advancement of social transformation

Higher education, notwithstanding its challenges, is a major ray of hope towards the attainment of the MDGs and social transformation. It has a significant and pivotal role to play in social transformation. Hence, high-quality higher education is crucial for social equity, economic and social development and a vibrant democracy and civil society. In this paper, we contend that higher education and sustainability are inextricably linked. Embedded in higher education is the inherent idea of implementing sustainability - fostering programmes that are locally relevant and culturally appropriate. Governments see higher education as a powerful means of implementing, not only local sustainable, but also the MDGs and EFA policies. The complex nature of globalization and ODL in Africa challenges and calls for a radical change in the CPTD. In line with this, the critical question is “What role can higher education, via the ODL mode, play in effective CPTD in the South African education system?”.

The roles of higher education in social transformation vary greatly. At one end of this spectrum is the narrow conception that reduces higher education to the role of responding to the needs and demands of the economy. At the other end, is the humanist emphasis, expecting universities to empower individuals to assume the identities of active agents of a democratic society [4]. According to CHE [4], higher education should “contribute to, and support the process of societal transformation outlined in the Reconstruction and Development

Programme (RDP), with its compelling vision of people-driven development leading to the building of a better quality of life for all.”

At the same time, a competitive market-oriented theme, associated with the demands of globalisation, pervaded some goals. Among others, it identified the following goals for higher education: (i) to meet individual learning needs; (ii) to meet the development needs of society and provide a skilled workforce for a “knowledge-driven and knowledge-dependent society”; and (iii) “to contribute to the socialisation of enlightened, responsible and constructively critical citizens”. It also recognises research as an end in itself, emphasising “intellectual inquiry through research, learning and teaching.”

Faced with the complexity of current and future global challenges, higher education has a social responsibility to advance our understanding of multifaceted issues, which involves social, economic, scientific and cultural dimensions, as well as our ability to respond to them. It should lead society in generating global knowledge to address global challenges - inter alia food security, climate change, water management, intercultural dialogue, renewable energy and public health [21].

On the other hand, EFA and the related MDGs seem to be neglected. In order to meet the challenges posed by EFA and MDGs and to improve the quality of education in Africa, specifically the South African context, there is an urgent need to shift to ODL as the mode of delivery in CPTD - especially in rural areas (disadvantaged communities), where access to quality higher education remains a challenge. Hence, a holistic approach in the overall teacher professional development sector is necessary. Higher education needs to be drawn more effectively into EFA strategies and activities and recognised as a concrete partner in this process [11]. In addition, it also needs to see itself as a viable and invaluable partner, and to examine its own instruction, research and outreach activities; and how these could relate to ODL and CTPD.

The dynamics of globalisation and ICT have resulted in radical changes in the educational needs of both individuals and society in a broader context, and it is also exerting new and powerful pressure on regional educational needs and capacity [17;8]. Given the complexity and fluidity of the school environment, newer approaches to CPTD are in demand - now more than ever. The primary role of higher education is increasingly to transform students by enhancing their knowledge, skills, attitudes and abilities, while simultaneously empowering them as lifelong critical, reflective learners. In essence, higher education institutions are required to instil their students with the functional enduring learning skills that they need to survive and meet the challenges and changes brought by the 21st century in teaching and learning settings.

6. Towards an ODL framework in CPTD

In this paper, we argue that the complex nature of the teachers teaching needs calls for a revitalised framework of effective professional development, consistent with reflective and reflexive framework/paradigm of teaching as an ongoing intellectual pursuit. It should not, focus on the mastering of static content, but rather on the construction of meaning within a collaborative environment. Hence, this paper proposes a shift towards a reflective and reflexive practice in the South African Department of Basic Education's CPTD training programmes via the mode of ODL.

Literature [1;4;19] notes that ODL has most often been used to combat a shortage of teachers, and is usually regarded as a temporary stopgap. But alongside that stopgap solution, it has also been used as part of the regular system of initial teacher training, to support curriculum reform, to offer continuing professional development to teachers, and to prepare them for new roles as head teachers, administrators or inspectors, or as teachers college lecturers. According to UNESCO [19], the provision of higher education via ODL is recognised as an effective step towards the democratisation of education. Furthermore, it also makes an important contribution to the development of higher education; and encourages the search for alternative delivery systems (including ways of updating knowledge and of providing advanced training so that institutions of higher education may serve as centres of lifelong learning that are permanently accessible to all).

ODL has been used to provide programmes in five main categories of teacher education as follows: (i) initial teacher education; (ii) continuing professional development; (iii) re-orientate teachers for curriculum reform; (iv) support career development; and (v) system-building. Within the context of recent curriculum policy reform, this paper sees ODL as having a pivotal role to play in programmes of curriculum reform that aim to change the content or process of education. ODL has been playing an important role in teacher education in many countries, including developing countries [1]. Hence, ODL has the potential of making a substantial difference to CPTD in the South African Department of Basic Education, in ensuring quality of training and programmes that are cost-effective in every aspect. In addition, it ensures more accessible participation than other instructional delivery types. ODL programmes versus the traditional face-to-face model, would most likely result in a lower per-student cost for ODL.

UNESCO [19] contends that a particular advantage of ODL is that it makes teacher preparation and professional development programmes accessible to indigenous peoples and others, located in remote and rural areas. In addition,

these people do not have convenient access to higher education institutions and there is often a shortage of well-prepared teachers and other education professionals. Furthermore, it may develop qualified teachers and other education professionals from the local community. Thus, the adoption of ODL, as an alternative strategy for professional teacher development by the Department of Basic Education, may serve as a catalyst for changing teaching practices, as well as the roles of teachers and students. It may also help the education system to be more responsive to local and national needs, as well as to global trends, more specifically, inclusive education.

We acknowledge the challenges facing ODL in the developing and under-developed countries. Nevertheless, for CPTD to be effective and efficient in ODL contexts, principles guiding interactive learning environments need to be underpinned by: (i) teaching needs that are driven by e-learning technologies; (ii) open and electronic resources that draw from the research based experiences of teachers and students; (iii) the Open and Electronic Resources (OER) and (iv) programmes need to be integral to students and instructors interactive reflexive processes of engaging with learning [4]. The Document Commonwealth of Learning [2] however, cautions that the development of good content (for integrative learning environments through e-learning modes) is time consuming and is often of a low quality. However, Commonwealth of Learning [2] further suggests that through the Asia e-University pedagogical framework, which guides the development of OER teaching and learning resources, the learning environment of learners can be immensely enhanced for better/meaningful learning. Figure 1 below denotes the e-Learning Pedagogical Framework.

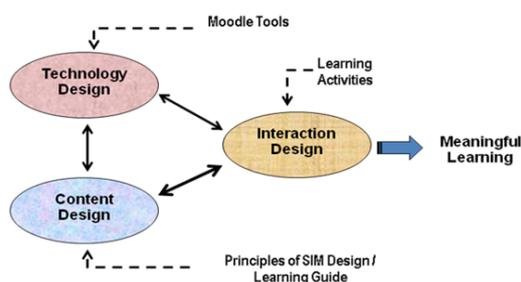


Figure 1. e-Learning Pedagogical Framework [2]

In the context of most ODL institutions, the technology design or courses/modules, would be underscored by the use of Moodle (abbreviation for Modular Object-Oriented Dynamic Learning Environment), which can also be referred to as Virtual Learning Environments (VLE). We concur with both Danaher and Umar [4] and Commonwealth

of Learning [2] that VLE offer opportunities for teachers to design appropriate learning activities that allow learners to interact with both the teachers and materials availed to them for learning. According to the Commonwealth of Learning, this approach to learning provides both learners and teachers with VLE that foster interactive content engagement with teachers as facilitators and mediators of meaningful technology situated learning in the inclusive education context.

7. Conclusion

ODL has been used to re-orientate and support teachers during periods of educational change and curriculum reform in developed and developing countries. Like other developing countries, the South African education system should embrace ODL as an alternative strategy in CPTD in addition to the cascade model approach used in teacher training workshops. It is our contention that the Department of Basic Education needs a paradigm shift – from a largely textbook-based and trainer-centred approach to a more interactive and learner-centred approach, based on ODL philosophy. We consider ODL a viable means of supporting the attainment of academic, as well as human capital development. Lastly, with reference to technology and inclusive education, we propose that South African higher education institutions should rethink their role in the development of human capital development and social transformation, by making CPTD accessible, flexible and cost-effective for all.

8. References

- [1] Belawati, T. & Wardani, I. G., (2010). Quality Assurance in Distance Teacher Education: The Experience of Universitas Terbuka. In PERSPECTIVES ON DISTANCE EDUCATION: Teacher Education through Open and Distance Learning. Canada: Commonwealth of Learning.
- [2] Commonwealth of Learning. (2011). Taking OER beyond the community: Ensuring that Open Content Builds Educational Quality in Africa. Dar es Salaam, Tanzania: Commonwealth of Learning.
- [3] COUNCIL ON HIGHER EDUCATION (CHE). (2004). HIGHER EDUCATION AND SOCIAL TRANSFORMATION. South African Case Study. Pretoria: COUNCIL ON HIGHER EDUCATION.

- [4] Danaher, P.A. & Umar, A. (2010). Creating New Perspectives on Teacher Education through Open and Distance Learning. In PERSPECTIVES ON DISTANCE EDUCATION: Teacher Education through Open and Distance Learning. Canada: Commonwealth of Learning.

- [5] DoE. (2007). Guidelines for Teacher Training and Professional Development in ICT. Pretoria: Government Printer.
- [6] DoE. (2008). SOUTH AFRICA: NATIONAL REPORT ON THE DEVELOPMENT OF EDUCATION. 48th International Conference on Education, 25 -28 November 2008. Pretoria: Government Printer.
- [7] DoE. (2009). Report of the Task Team for the Review of the Implementation of the National Curriculum Statement. Pretoria: Government Printer.
- [8] Duderstadt, J.J. (2007). Higher Education in the 21st Century: Global Imperatives, Regional Challenges, National Responsibilities and Emerging Opportunities. Washington D.C.: National Academies Press.
- [9] Harreveld, R. (2010). A Capability Approach to Open and Distance Learning for In-Service Teacher Education. In PERSPECTIVES ON DISTANCE EDUCATION: Teacher Education through Open and Distance Learning. Canada: Commonwealth of Learning.
- [10] Haughey, M. & Stewart, S. (2009). Using Information and Communication Technologies in Open Schooling. In Abrioux, D (ed.). PERSPECTIVES ON DISTANCE EDUCATION: Open Schooling in the 21st Century. Vancouver: Commonwealth of Learning.
- [11] International Association of Universities (IAU). (2009). Strengthening Linkages for Improved Education: Higher Education and Research working for EFA and related MDGs. IAU Capacity Building Project. September 2009. Sweden: Swedish International Development Cooperation Agency (Sida).
- [12] Ki-Moon, B. (2007). Children and the Millennium Development Goals: Progress towards A World Fit for Children. New York: United Nations Children's Fund (UNICEF).
- [13] Krumm, D. (2008). Open and Distance Learning in Microfinance. Morocco: PlaNet Finance.
- [14] Lewin, K.M (2002). The costs of supply and demand for teacher education: Dilemmas for development. International Journal of Educational Development, 22 (3-4), 221-242.
- [15] Mayes, A.S. & Burgess, H. (2010). Open and Distance Learning for Initial Teacher Education in Commonwealth of Learning. In PERSPECTIVES ON DISTANCE EDUCATION: Teacher Education through Open and Distance Learning. Canada: Commonwealth of Learning.
- [16] Munro, Y. & Pringle, I. (2009). Using Open and Distance Learning for Community Development. : Vancouver: Commonwealth of Learning.
- [17] Ojo, O. & Olakulahin, F.K. (2006). Attitudes and Perceptions of Students to Open and Distance Learning in Nigeria. International Review of Research in Open and Distance Learning, 7(1).
- [18] Pityana, N.B. (2009). Flexible Education for All: Open – Global – Innovative. 23rd ICDE World Conference proceedings held at the Open University of Nederland, Maastricht, 7 – 10 June 2009. Netherlands: Open University of Nederland.
- [19] UNESCO. (2002a). Open and distance learning trends, policy and strategy considerations. New York: UNESCO, Division of Higher Education.
- [20] UNESCO. (2002b). Teacher education guidelines: Using open and distance learning. New York: UNESCO, Division of Higher Education.
- [21] UNESCO. (2009). World Conference on Higher Education: The New Dynamics of Higher Education and Research for Societal Change and Development. New York: UNESCO: Division of Higher Education.
- [22] Vandenberghe, R. (2002). Teachers' professional development as the core of school improvement. International Journal of Educational Research, 37(8), p653-659.