Academic Professional Development for Effective E-learning[1]: A Possible Framework for Brazil

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Abstract—**Distance education at a tertiary level in Brazil represents a very new educational approach compared with countries such as Australia and the United Kingdom. However, higher educational institutions in these and other countries share similar concerns surrounding this issue. One concern relates to preparing academics for delivery of quality online education. This paper will explore a PhD investigation concerning academic professional development for online learning in Brazil, as well as discuss the current available literature regarding this topic.**

Index Terms—**academic development, staff development, distance education, e-learning.**

I. INTRODUCTION

The current transformation in society, and in the educational functions of universities, has brought with it clear challenges to academic values, student self-esteem and conceptions of roles. Information and communication technologies (ICT) and the Internet have both been important as contemporary educational changes because higher educational institutions are now expected to provide "more flexible, more electronically distributed, more open, [and] more learner-controlled forms of learning" [1]. Likewise, academics are also expected not only to teach, but also to facilitate, to moderate and to promote critical thinking through a more flexible way of delivering learning. On top of this, they are also expected to conduct research, teach at a distance and online - conditions required by new higher education strategies and student expectations - now that there is a considerable increase in students access to technology [2, 3]. The above situation is a reality faced by many educational institutions and academic staff worldwide, independently of their own countries' economic status and cultural background.

Research regarding e-learning has shown that effective academic professional development can be a solution for supporting the delivery of quality online education, helping academics to improve and acquire new skills required by this new model of teaching and learning, including computer skills, pedagogical strategies, managing workload, and the like [4, 5]. Currently, most institutions have adapted various existing and tried new approaches and strategies to help develop and prepare academic staff to teach effectively in the online environment. All these programs have been developed "to support academic teaching staff in their appropriate use of the online environment to support their students' learning" [6]. Countries such as Brazil, for instance, with a short history of distance education at a tertiary level, should consider whether new academic development strategies, adopted at the early stages of the online distance education enterprise, would improve the success and reduce the impact of failure experienced by some early adopters in many countries.

This paper will provide some background of the thinking behind this issue, exploring the literature regarding distance education, e-learning and professional development. In addition, it will also briefly discuss how this thinking might relate to the fast development of distance education in Brazil, as well as the importance of preparing academics to teach online, taking into account their cultural and economic backgrounds. In particular, the paper will describe a PhD investigation regarding distance education in Brazil, more specifically concerning academic development for online instruction. Finally, this paper will highlight the methodology that will be applied to the research, considering the research questions, data collection and analysis.

II. BACKGROUND OF THE STUDY

A. E-learning and Academic Professional Development

Currently, e-learning is becoming more and more popular as a new model for the delivery of education at a distance because of its perceived cost efficiencies, flexibility and interactivity [7, 8]. The traditional printed material used in distance education, is considered in many cases, as a support resource for online distance education, which incorporates a whole range of interactive media through web-based technologies. As e-learning is increasingly introduced into the higher educational context, the demand for new and appropriate educational and pedagogical methods and approaches for teaching and learning via the Internet has also increased [9, 10].

Amongst the changes and challenges brought by e-learning within higher education, one of the more visible seems to be the modifications to academic job roles and careers. Recently, university lecturers and academics have

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[1] In this particular work *e-learning* will be used to define the use of any technology applied for teaching and learning at a distance, including the Internet. It will also be viewed as a synonymous with online distance education.

been expected to explore and adapt new learning approaches and technologies to their on and off campus teaching. In addition to teaching, they also need to continue conducting their research projects, supervising their research students, keeping updated, as well as being part of the university community, including participating in administrative issues [1, 11]. The increasing workload and pressures have left many academic staff with few or no opportunities at all for their professional development. However, the issue is not only related to time and workload. Academic developers have faced many challenges in encouraging their fellow academics to embrace e-learning strategies and technologies in their teaching [12]. To begin with, there is a need to change the culture, where education in its many forms (formal or informal) is no longer an activity that happens only once in lifetime. Academic staff need to be aware of the importance of ongoing learning, and of acquiring new teaching and technological skills and techniques. This attitude is fashionably called *lifelong learning* [12, 13]. Another problem confronted by developers is that traditionally "a large majority of academics worldwide continue to hold no formal qualifications in education" [2:21]. It is assumed by many academics, therefore, that teaching skills will simply come from many years of experience and practice [2]. According to Giusti, "no one 'is born a teacher', neither gets ready after receiving a diploma" [13: 19]; as a consequence, academics should be involved in continuous development [3].

Research regarding staff development has indeed increased considerably in recent years, and it has been shown to be " the key to facilitating changes in university teaching" [4: 51]. There is a substantial body of literature presenting new methods, approaches and techniques for academic professional development worldwide, along with a whole range of frameworks that have been developed by academic developers and researchers in this field. There are also many resources available on the web to help academic staff to keep themselves up to date, from government websites and associations to private companies and institutions. Nevertheless, there is no one staff development approach that fits all institutions, however, the models, approaches and techniques available can help to provide a theoretical and methodological basis for future implementation. Together with this, academic developers and their teams should also consider the individual university's context, culture, tactics, students and staff expectations and needs [14], in order to develop a realistic strategy to enhance effective online learning [3].

It is interesting to observe that the body of literature available regarding academic development comes from the results of research and experiments that normally have taken place in the USA, Australia and Europe (mainly in the UK). However, it does not necessary mean that staff development has not been undertaken worldwide; in countries where e-learning is not as developed as it is in the above countries. In Brazil for example, where distance education at a tertiary level has been officially implemented for approximately one decade, the importance of staff development is expanding considerably. However, the problem is that not all projects and research undertaken in this area in Brazil have been published nationally and/or internationally. Consequently, access to information, in some cases, remains restricted only to the researchers related to the programs and within their universities, or sometimes shared by a few universities that are collaborating amongst each other.

B. Brazilian Distance Education and Academic Professional Development

Compared with countries such as the USA and Australia for example, where university level distance education has taken place since the 1890's and the 1950's respectively, Brazil has just started its higher distance education enterprise. Distance education in Brazil was first officially recognised in 1996 when Federal Law number 1934, which controls the whole educational system in Brazil [15] was passed. Together with this, through the Decrees 4361 (2004) and 5622 (December 2005) the main pieces of distance education regulation were then established [16]. However, the first attempts to introduce distance education in Brazil took place before the establishment of these laws. According to Reifschneider, educational programs transmitted via radio in 1922 were the pioneer initiatives. The correspondence model was introduced in 1941 when the Universal Brazilian Institute was established. Since then, distance education has focused on educating adults at primary, secondary and vocational levels, and has played an important role within the Brazilian education system ever since [17]. Currently, there are almost one million students enrolled in several distance education programs and courses in this category across the country delivered by radio, television, correspondence, via videoconference and online (ABED 2006).

Although having a relatively recent experience with distance education, Brazil has already achieved significant progress in the higher education field. According to the Brazilian Association of Distance Education (ABED), in 2005 there were approximately 504,000 students utilising tertiary distance education (DE) across the country. The number of higher institutions authorised to deliver DE has increased approximately 40% since 2004 [18]. This growth is likely to be caused by the influence of new policies regarding distance education, the recent reforms in Brazilian higher education, along with federal government incentives and programs. In a similar way, the establishment of The Brazilian Open University, and various consortiums and collaborative efforts amongst tertiary institutions, such as Cederj (Centre for Distance Learning of State of Rio de Janeiro – www.cederj.edu.br) and RICESU (Network of Catholic Institutions of Higher Education – www.ricesu.com.br), have contributed significantly to the expansion and improvement of Brazilian distance education [19, 18].

Like many countries, distance education in Brazil still has a long journey ahead and many challenges to overcome. Compared with traditional higher education, distance education has a "minimal role" within the Brazilian tertiary educational system [17]. Amongst the 2,165 higher educational institutions in Brazil, only 118 have been accredited by the Brazilian Ministry of Education to offer courses at a distance [20]. Schwartzman argues that one of the barriers stopping e-learning growth in Brazil can be attributed to culture. He believes that "there is already a mistrust about the quality and truthfulness of the training and qualifications that can be provided at a distance"[21: 2]. Although research and literature regarding Brazilian distance education has had a considerable growth in the last couple of years, there is

still an urgent need for increasing numbers and quality of these activities. It could encourage the development of innovative models and approaches, as well as test the effectiveness of what has already been developed within distance education. Moreover, according to Moran, a Ministry of Education evaluator of higher distance education programs in Brazil, Brazilian universities should consider more seriously what is necessary to implement a quality e-learning program. He recommends that universities should develop internal policies, carry on with their programs and projects (which often stop after the pilot project), develop quality learning resources, while continually evaluating their students needs and access to technologies, as many students do not have access to the Internet and are enrolled in online courses [18]. Finally, universities should also invest in online skills for their academic body, as academic development is considered an important, if not the most important, issue for successful e-learning [6, 5].

There are some emerging initiatives in academic development for online learning in Brazil, and amongst them, can be noticed a strong tendency for the use of Learning Management Systems (LMS). This approach is very common among universities worldwide. Teleduc, a LMS developed in Brazil has been adopted in many educational institutions, due to its free access. University Cidade de Sao Paulo, for example, has developed an "online-instructor's training course that takes place at an introductory, beginner level", and which has Teleduc as its platform. The learning method adopted was Papert's constructionist approach of knowledge construction, and they have as their learning objective "the transformation of teacher's practice" [22]. Another example of staff development is the Skills Development Program in DE developed by the Pontifical Catholic University of Rio Grande do Sul (PUC-RS). The program is in its 38th edition and has already trained approximately 855 academic and general staff from a whole range of areas within the university. In addition, they use a student-centred approach – the method recommended for many researchers in this field as one of the most appropriate approaches for staff development [12]. This program is delivered by face-to-face sessions, including workshops and lab activities, along with online tasks [23]. Likewise, the Getulio Vargas Foundation (FGV), which has started its institutional online program since 2000, has adopted a staff development regime whereby the training program is compulsory for lecturers at the beginning of their employment – a strategy recently applied by many universities in Australia [24]. The training can last from one to two months, and presents to the participants the institutional vision and aims of its distance education program, as well as exploring the principal elements and concepts of distance education practices, and the effective use of technologies. The program also includes face-to-face and online sessions, along with group and individual activities. According to the researchers in this institution, university lecturers and their distance education staff at FGV Online are in constant development as they have opportunities to interact and receive support through the Lecturers' Virtual Room, an online discussion board [25].

Interestingly, some Brazilian educational institutions have adopted a more careful and cautious approach in introducing academic staff to learning technologies. One example of this is the University of Santa Cruz do Sul. Its

academic development consists of face-to-face workshops and discussion groups, where academics can reflect on the impact of the technologies in their teaching, and what changes distance education requires within their work. The institution runs a small evaluation after every course and the feedback is used to improve the strategies for new versions of the program. According to Oliver, evaluation is fundamental for the success of staff development programs [26]. Participants join the program as volunteers. In addition, the institution does not deliver full distance courses, they have units or parts of units that are delivered online (online education), but it is already getting prepared for future plans [27].

III. INVESTIGATION OF ACADEMIC DEVELOPMENT FOR ONLINE DISTANCE EDUCATION IN BRAZIL

The interest in investigating the distance education system in Brazil first came from one of the authors' (Carina Bossu) previous experiences as an external Masters student at the University of New England (UNE), in the state of New South Wales (NSW), Australia. As a Brazilian she was fascinated by the distance education system in Australia, and was curious to know how such a system would operate in her own country, where distance education was still something very far from her own reality as a student. The experience of being an off-campus student also brought concerns regarding the quality and the degree of learning that could be achieved. Surprisingly, it was only through studying by herself and, of course, with the guidance of the units printed materials (study guide and resource books), that she was able to understand her study patterns, habits and in which way, place, time and circumstances she learns better [28]. After this experience she took the opportunity to study a PhD in Australia and furthermore, to investigate Brazilian distance education.

Studying for a PhD degree in Australia only lasts 3 years – not enough time to investigate the whole Brazilian distance education system so a conceptualisation of the research framework has made it possible to identify an area of investigation that could make a relevant contribution to distance education not only in Brazil, but also worldwide; that is, academic professional development. Therefore, the research question that will guide this study is: *"To what extent is a blended model an effective way to deliver professional development for online teaching to Brazilian higher distance education institutions?*

Although the examples of staff development initiatives mentioned earlier can be considered as positive progress in terms of understanding the importance and benefits of academic development for the success of Brazilian distance education, there are, however, only a few and they seem insufficient to provide a real picture of the reality in this area across the entire country. Some staff development programs appear very weak in methodology, leaving the program without an appropriate direction [24]. Other approaches that are reported in the literature are still focused only on the use of technologies, including hardware and software, and not on how to incorporate them into teaching strategies [29], while others apply the traditional teaching centred methods with only face-to-face interactions. And, in some cases, lecturers need to attend staff development courses after work hours [30], adding extra commitment into their already busy lives. In

an even worse scenario, anecdotal evidence suggests that there is a commonly held perception amongst some DE professionals in Brazil that a significant proportion of e-learning providers do not offer any academic development to their staff [31].

The need for further and deeper investigation in this area is evident. Throughout this research it is hoped to generate a better understanding of the benefits and practices of quality staff development programs. In addition, this study also aims to encourage other researchers to investigate distance education, and also academic development, thus, promoting and considering this area as a growing field of research in Brazil. Together with this, another benefit that might come from this study is an increasing number of publications and reports on this topic, not only nationally but also internationally, as it might encourage other institutions and researchers to promote their ideas and what they have already achieved in staff development including their successes and failures. Consequently, Brazil will also be able to contribute with its experiences to the academic professional development field worldwide. Most importantly, it is expected that the results from this investigation will be used to improve the quality of Brazilian distance education through academic development.

A. Methodology

In many research studies, mainly in the social and educational science fields, methodology is something that might change as research and researchers take different directions and shape different concepts. This study was not an exception. In the beginning, the research methodology seemed to have a potential for applying action research. But, further investigation showed that it would not be appropriate as the 'action', which justifies the name of this research approach, would not take place, for several reasons; money and time were the strongest ones [28]. Nevertheless, qualitative methodology will be applied in this research as it interrogates the relationship between the perceptions of academic staff and educational practices of online teaching, with a view to making judgments and recommendations for academic professional development for e-learning [32].

Amongst the methods that can be used within qualitative inquiry, the case study approach seems to be the most suitable to answer the research question associated with this particular investigation. First of all, case studies are an "intensive, holistic description and analyses of a […] bounded system [33: 12]". With respect to this study, higher distance education institutions in Brazil, more specifically four universities (including both public and private), will compose the bounded system. Another reason for adopting the case study approach is that previous contacts made with Brazilian academics and universities, which have already developed their online education or are in the process of implementing it, can be used as potential case studies [28]. Previous contacts can also be the link for further networking, as well as enabling access to richer data. In addition, case studies allow the researcher to explore a whole range of techniques during the investigation [34]. In this study, an online questionnaire will be sent to participants in order to give to the researcher a basis and ideas for the next step of the investigation. Together with this, interviews will also be

adopted and will be conducted face-to-face, and/or by telephone, and via the Internet, depending on the technology available at the sites. The interviews will be audio recorded and transcribed. The transcriptions will be sent to the participants in order to collect their further approval and, thus, provide to the researcher assurance of the accuracy of the data. Data collected will then be analysed using an interpretive and narrative approach. These approaches are quite popular for qualitative data analyses [33]. After that, the NVivo software package will also be utilised to manage and collate data [35]. Reports with preliminary results will be sent electronically to participants and will request confirmation of results.

Moreover, case studies have also been adopted due to their potential for in-depth investigation into the reality of the context within which higher distance education institutions and their staff development programs operate, promoting then, a better understanding of the approaches that have influenced academic professional development for e-learning in Brazil, as well as the new tendencies [36]. In a similar fashion, further recommendations and contributions regarding academic professional development for e-learning in Brazil and worldwide are also expected to be achieved through this investigation. Finally and most importantly, the case study method acknowledges the researcher's "self reflection and improvement through the investigation" undertaken [37]. Thus, the researcher will be able to express and build her theories through analysing facts, ideas, arguments, previous experiences and methods during her research journey.

IV. CONCLUSION

In conclusion, Brazilian distance education and staff development are heading in a generally positive direction. However, a lot more needs to be done. Additionally, if academic professional development is one of the main strategy for delivering quality e-learning, Brazil has still much to learn and a number of key problems to overcome. This PhD study intends to investigate issues regarding staff development for e-learning, taking into account the emerging approaches and methods applied in Brazil and elsewhere, along with Brazilian academic staff perceptions of academic development. Furthermore, data collection and analysis will be used as a basis for recommendations for a tentative framework from which to consider academic development. These recommendations may not solve all problems regarding e-learning, but they can help to start illuminating a few workable solutions and to promote positive development. Moreover, this research intends to promote the benefits and concepts of staff development and its implication to quality e-learning practices. Further steps of this research will include data collection that will begin in early May 2007 and will most likely finish in late July 2007. Data analysis is predicted to take place during most of second semester 2007, and reports will be sent to participants for confirmation of results. The final project will be ready for examination in early August 2008.

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