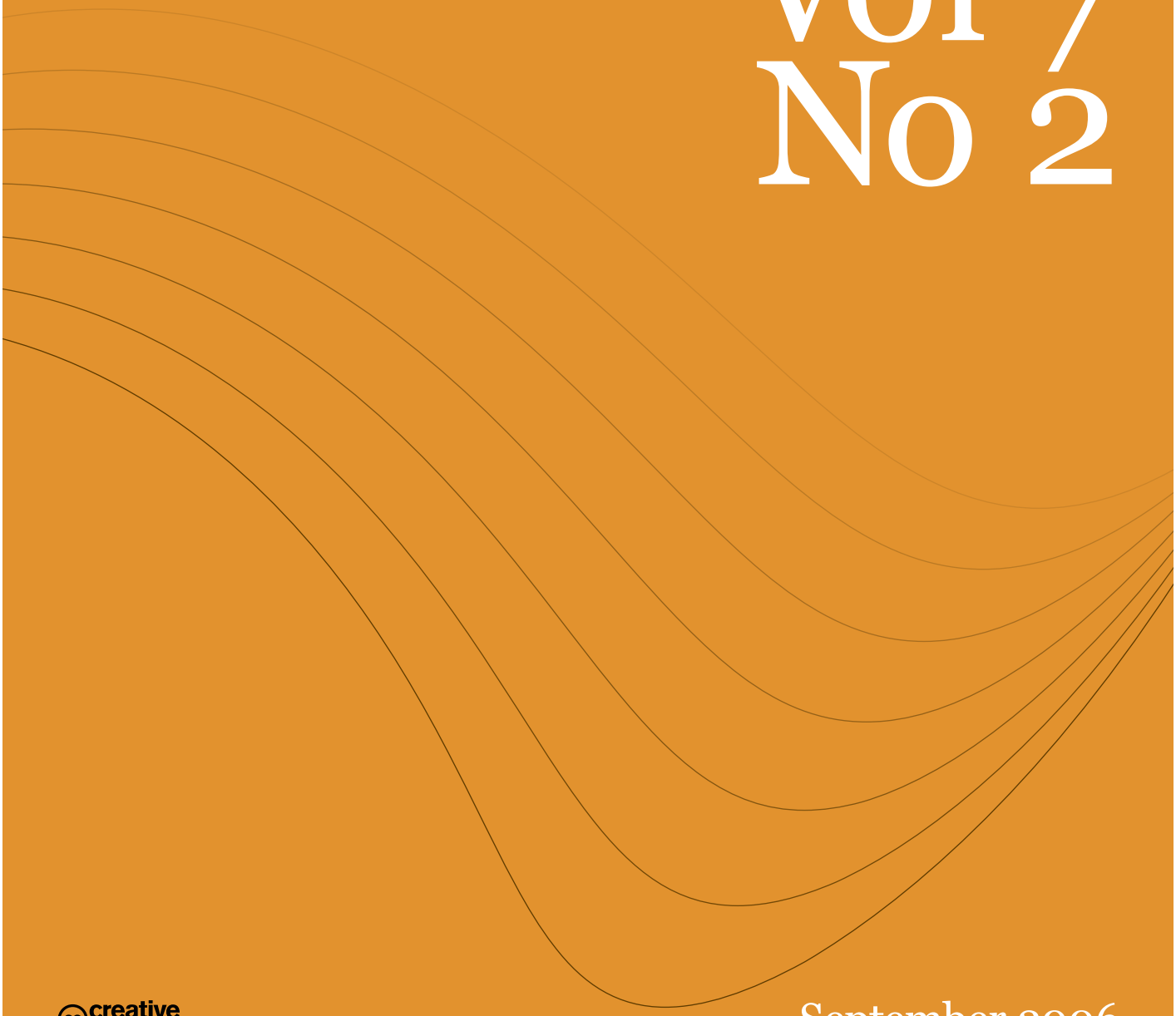
IRRODL

THE INTERNATIONAL
REVIEW OF RESEARCH IN
OPEN AND DISTANCE LEARNING

Vol 7
No 2



September 2006

International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September – 2006

Guest Editorial ~ Issues, Challenges and Possibilities for Academics and Tutors at Open and Distance Learning Environments

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Theme Issue Overview

Institutions of open and distance learning present a number of special challenges for academics. Development loads and teaching effectiveness are increasing, while traditional demands for research productivity have become a new and/ or increased pressure. The size, complexity, and structure of the networked learning environment at most institutions of open and distance learning have been known to contribute to feelings of isolation and loneliness leading to disengagement experienced by many new and not so new academics. It is possible if we do not address the disconnectedness experienced by many open and distance academics and tutors that detachment to our institutions will occur, resulting in an increased migration to either collaborate with, or work in, other institutions.

Retaining faculty members is not only important for the stability and health of open and distance organizations, but retention – and recruitment – are also issues that institutions of open and distance learning need to be concerned about. The large numbers of senior faculty appointed in the mid 1970s are moving into retirement and/ or later-life careers. It has been estimated that 40 percent of university faculty will retire within the next 10 years. Recruitment and retention of academics is a pressing concern for all universities – but particularly for open and distance universities. The current detached environment may result in a serious employment problem down the road as other traditional universities begin an intensive competition for the best academics. And while these problems exist to some extent at all universities, there is probably no other type of university where building a sense of community is needed.

This theme issue on academics working in open and distance learning environments includes papers based on empirical research, theoretical analysis, and position papers dealing with issues, challenges, and possibilities for academics and tutors at open and distance learning environments. But before I introduce the papers for this theme issue, the editor, Terry Anderson, asked that I briefly outline some new changes made to IRRODL and to talk briefly about a readership survey developed for www.irrodl.org.

Changes to IRRODL Interface

First, Terry Anderson asked that I relay to you some news – specifically that IRRODL has survived the transition to the Open Journal System (OJS) journal management and publication system. He will be updating the user interface in the near future and hopes that readers have not been overly confused with IRRODL's "new look" and functionality. He advises one major reason

the change was made was the capacity of OJS to format articles for harvesting using the Open Archives Initiative protocol. Unfortunately, the current generation of harvesters do not like abstracts composed of multiple languages. Thus, Terry has discontinued the publication translated abstracts for the time being. There was also question of the value of being able to read an abstract in a different language other than English, when the full text is only available in English. We also noted that the power of multiple language translation services of English text continues to improve. Terry suggests that Google Translation or AltaVista Babel Fish can be used to translate abstracts or even an entire article into any of the languages currently available. IRRODL did test-drive Babel Fish and Google Translation, and the results were passable (at least as far as Terry's linguistic skills could determine).

Terry anticipates that this change will speed up production, increase harvesting of IRRODL metadata, reduce cost, and only marginally effect non-English speakers. Please let us know if you have concerns or suggestions to improve our multi-lingual services.

Readership Survey

Next, Terry invites IRRODL readers to participate in an online readership survey. This survey is for quality control purposes only, and any data collected will not be shared beyond that of the immediate editorial team. The purpose for all data collected, is to determine areas where IRRODL needs to improve.

In This Theme Issue

The article by Monica Shelley, Cynthia White, Uwe Baumann, and Linda Murphy outlines their project based on work at the Open University UK (OUUK). The aim of this project was to describe the attributes and expertise required by tutors of languages in distance education. This articles focuses on issues of definition and research perspective, as well as the advantages and disadvantages of various research approaches and concluding with implications for the on-going professional development of tutors.

The article by Ruth Beyth-Marom, Gal Harpaz-Gorodeisky, Aviad Bar-Haim, and Eti Godder centre around tutors working for The Open University of Israel (OUI), who are often the only academic staff who have direct contact with students and, as such, their activities are crucial to the university. Because tutors are temporary and part time employees however, they have low job security and their academic freedom is limited. These factors can negatively affect tutors' organizational identification, job satisfaction, and motivation. The results of a survey completed by 71 respondents revealed that identification and job satisfaction were well predicted by job importance and organizational attachment, while work motivation was not.

The article by Ilse Fouche examines the experiences of nine tutors at one of the 10 biggest universities in the world, University of South Africa's (Unisa) Reading and Writing Centres. The purpose of this study was to determine to what extent administrative support, professional development support, and colleague support influence tutors' feelings of isolation. Findings from this study revealed that contact with, and collaboration between and amongst, colleagues significantly decreases feelings of isolation.

In the article by Dariya Mukamusoni, the results of a descriptive qualitative case study revealed that faculty members involved in both in service and pre service program are faced with the challenges of heavy workload, with priority given to the pre-service program rather than the distance learning program. A conclusion of this study is that the academic relationship between faculty members and tutors need to be reinforced. Further, course coordinators play a big role in

effective program operations, and as a link between the distance learning program and pre-service departments and faculties.

The article by Adrian Kirkwood and Linda Price explore the relationship between the use of information and communication technologies (ICT) and learning and teaching through a critique of continuing professional development (CPD) and ICT. They argue against CPD that concentrates on the individual teacher and their use of ICT. They conclude that professional development should focus upon the scholarship of teaching and learning, and must also reflect the wider organisational context within which ICT is managed and used.

The article by Cheuk Fan Ng argues that little research has examined the experiences of academics working in institutions where the faculty is dispersed geographically. Drawing on a literature review of research in telecommuting or teleworking, Dr Ng discusses the potential benefits and drawbacks of telecommuting for academics and their families, and the potential opportunities for – and challenges faced – by their distance and online education institutions.

The article by B.J. Eib and Pam Miller argues that the growing number of blended, online, and distance education courses, programs, and degrees offered by institutions of higher education of all types offers challenging new opportunities to re-examine teaching and learning. They describe a carefully designed faculty development program designed to improve the collegial culture at a higher educational organization in Western Canada. The article concludes with suggestions for applying this approach to faculty development in open and distance institutional contexts.

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‘It’s a unique role!’ Perspectives on tutor attributes and expertise in distance language teaching

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Abstract

This article outlines the background to, and progress on, a project based on work carried out at the Open University UK (OUUK). The aim of the project is to articulate the attributes and expertise required by tutors of languages in distance education. A review of the literature on the roles and competencies required for tutors operating at a distance indicates that the specific context of language teaching has received relatively little attention from researchers in the field. There has, however, been considerable interest in the skills and attributes necessary for face-to-face language teaching in the classroom, which is outlined here. Issues of definition and research perspective are discussed, as well as the advantages and disadvantages of various research approaches. The different stages and outcomes of the collaborative project are described in detail, demonstrating how the unfolding research design allowed opportunities for consultation, reflection, and responsive changes. The next stages of consultation are outlined, together with implications for the on-going professional development of tutors.

Keywords: Distance language teaching; tutor attributes; tutor expertise

Background

Tutors in Distance Education: The research literature

Rapidly evolving developments in e-learning, both within and beyond open and distance learning (ODL), have raised questions about the roles required of tutors, about the competencies which underpin those roles, and proposed professional development opportunities (Barker, 2002; Bennett and Marsh, 2002; Duggleby, 2000; Thorpe, 2002).The contribution that tutors make to the success of both online and distance learning opportunities centres on the personal link they establish between student and institution via a range of interactions offering guidance,

assessment, support, and motivation (Berge, 1995; Fung and Carr, 1999; Lentell, 2003; McPherson and Nunes, 2004; Palloff and Pratt, 1999; J. Tait, 2004). Despite the perceived importance of the tutor role, relatively little research has been undertaken which relates to supporting students at a distance, compared to the substantial literature relating to the production of learning materials and resources (A. Tait, 2000; Tait and Mills, 2003). A number of theorists and commentators have also lamented the paucity of attention given to tutoring at a distance. Lentell and O'Rourke (2004), for instance, argue that tutoring as a professional activity has been carried out largely unseen and unanalysed, certainly in comparison with the prevailing focus on course hardware and software, and argue that it is the less visible element of ODL. Elsewhere Lentell suggests that tutors may be 'unheard' (Lentell, 1994) or 'undervalued' (Lentell, 2003).

As the development of distance courses is frequently separated from the delivery of learning opportunities, tutors are often employed on part-time, temporary contracts which may have long-term effects on their professional status and standing. The outsourcing of tutoring to casual staff, who may not have had any input into course design could, arguably, impact on the tutors' sense of professional identity and agency. This aspect has been highlighted in the case of the OUUK by J. Tait (2004). Here, course materials are produced by full-time academics, and certain aspects of the student support system are organised by full-time regional academics, known as staff tutors – but it is the large pool of part-time tutoring staff who deliver the supporting instruction. J. Tait (2002) argues that undervaluing tutors makes it difficult to develop effective channels of communication between the tutor's experience of teaching and the design of courses. There is an emerging consensus that the role of the tutor as the interface between learners and institution is gaining in importance:

> . . . [tutors'] *feedback forms a crucial link between course designers and student learning outcomes and, because of the model of student learning that underpins UKOU course design and student support, feedback aims to build a relationship and a sense of contact between the student and the tutor* (J. Tait, 2004, p. 99).

Furthermore, institutional research at the OUUK has demonstrated that students at the University rate the continuous assessment and its marking by tutors as 'very helpful' (J. Tait, 2004, p. 100).

Face-to-Face Teachers of Languages

Within the published literature there is a substantial body of work dealing with the skills and expertise required by face-to-face teachers of languages, for example Brosch, 1996; Grenfell, Kelly and Jones, 2003; Hammadou and Bernhardt, 1987; Richards, 1998; and Richards and Farrell, 2005, among others. Notably, Borg (2003; 2006) has made the case that language teaching differs from teaching in other disciplines in a number of respects. He points out that '. . . the notion of language teachers' characteristics is complex and multi-dimensional . . . ' (Borg, 2006, p.7). There is, however, little research which focuses directly onto the role of the distance language tutor. In a comprehensive survey of published research on the distance teaching of languages (White, 2006) the author identifies work carried out on teaching roles in relation to online language teaching; feedback from tutors has also been investigated (Ros i Sole and Truman, 2005). Overall, however, this is an area which has hitherto received relatively little attention. Moreover, the emergence of a host of new ways of organising language learning over the past two decades (distributed learning, blended learning, hybrid learning, online learning) has not been met with a similar development of enquiry into what is actually required to carry out teaching roles in such contexts.

Tutors in Distance Education: The OUUK experience

Over the thirty five years of its existence, the OUUK has developed a substantial support system for tutors or Associate Lecturers (ALs) as they are now called, beginning with a rigorous selection procedure to ensure the employment of suitable candidates. This is backed up with a range of relevant information offered in the early stages, continues through the first two years of employment (since tutors are highly unlikely to have gained expertise in teaching at a distance elsewhere) and is available throughout ALs' career with the OUUK in the form of print materials, regular staff development events, and now the opportunity to gain professional recognition through the Staff and Educational Development Association (SEDA). New ALs are assigned a mentor and are in regular contact with their staff tutor, who organises regular staff development days in each of the thirteen OUUK Regions.

Clear from the start, is that the academic specialism or professional experience of an AL must be complemented by a personal commitment to the education of adults, and an appreciation of the challenges that face adult learners who are studying at a distance. Those ALs who apply to tutor languages are required, as one might expect, to have a degree or equivalent in the relevant language, and to be a native speaker or to have near-native speaker competence. Issues of tutor knowledge and teaching methodology are important here too: they are required to demonstrate a commitment to communicative language-teaching methodology and to have a broad understanding of the societies and cultures of the country in question. While the same qualifications might be required of a classroom teacher, there is little research evidence as to the additional skills needed for the distance teacher of languages; this is the focus of the research reported here. While this enquiry is based on the experience of the OUUK language tutors, the research problem, the research process, and research findings are applicable to other contexts, including dual and mixed mode institutions.

The Research Project: Method and outcomes

Given the lack of research focus and enquiry into teaching roles in distance language education, a collaborative project was established focusing on the attributes, skills, and expertise needed by the distance tutor of languages, the teacher charged with the delivery of distance teaching materials. Tutors – at least in the context of the OUUK – also conduct tutorials, either face-to-face or via a computer-mediated audiographic conferencing system, and provide feedback to continuous assessment. In the exploratory stages of the research described in this paper, it was tutors themselves who gave impetus to the proposed enquiry. They welcomed the opportunity to contribute and acknowledged the value of exploring and documenting the attributes, skills, and expertise required to carry out their jobs. In their view, the exercise was important for increasing awareness of their work, for reference and self-positioning within the field, and as a part of professional development. Specifically the project aims to:

- Articulate the professional background and expertise which are required of distance language teaching professionals
- Gain insights into the nature of the professional practice in the field
- Provide a basis for future professional development

The Research Team

This project has been conceptualised and carried out by a small team of academics from the OUUK and Massey University, New Zealand. It came about as the result of discussions about the role of tutors engaged in the distance teaching of foreign language courses, and how best to

support them and develop their expertise. It was deemed important that tutors themselves be involved in the identification and definition of that expertise, and that the perspectives of other participants in the development of the materials and students be included. The team includes a staff tutor in languages who has the responsibility for organising the tutors and their work, as well as academics who produce course materials and are responsible for curriculum development.

The Context: Languages at the OUUK

The Department of Languages at the Open University, UK offers courses in French, German, and Spanish from beginners' to graduate level, and a degree in Modern Language Studies; courses can count towards a variety of other named degrees in the OUUK, such as Humanities, European Studies, and International Studies. As of 2006, there were currently around 7000 students registered on the language courses, giving the OUUK a market share of about one-third of the part-time language study market in the UK.

The courses follow the well-established ODL model of supported self-study with specially designed course books as their core, audio and video materials (now gradually being replaced by interactive DVD-ROMs) and other supplementary materials. Students have access to a wide variety of support services provided by the OUUK, including online access to the library, designated course websites, and email conferences. In addition, students are offered up to 21 hours of instruction throughout the academic year, delivered face-to-face or online via a computer-mediated audiographic conferencing system called *Lyceum*, which has been developed in-house. This instruction is not compulsory, but highly recommended to offer students the opportunity to practise interactive speaking and group activities. Each student is assigned a dedicated personal tutor (Associate Lecturer), who gives written and spoken feedback on regular continuous assessment tasks, and provides support for their students as appropriate.

Issues of Definition and Research Perspectives

In any exploration of the kinds of skills tutors need to carry out their work, two key issues arise relating to terminology and research perspective. The first, terminology, concerns whether the focus is on role, competencies, attributes, expertise, or other terms, and whether matters of definition within the research literature are significant to participants in the research. In developing the research design for the study, the choice of terminology was particularly important since the team was aware that not all tutors would react favourably to the term 'competency': responses during preliminary discussions indicated that for some the term was linked to competency frameworks used as part of formal assessment, and was likely to be misunderstood. In addition, at the time when the study began, the institution was developing a competency framework for all categories of staff, and this project was not part of that. Therefore in the first phase of the study (see below), rather than the generic term competency the words 'knowledge,''attitudes,' and 'skills' were used to ask tutors to reflect on those qualities which underpinned their professional roles. As the study progressed, these terms proved rather limiting: they did not represent a comprehensive range of attributes, and may have constrained the responses of the tutors. The terms 'attribute' and 'expertise' were then included in subsequent phases: 'attribute' was taken to mean the characteristic, capacity, or perceived quality of an individual which could include attitude, ability, behaviour, skill, knowledge, or interest. 'Expertise' was taken to mean skill or knowledge in a particular area. 'Attribute and expertise' (A & E) were used together, rather than singly, to cover the semantic field in which the team was interested, given the widespread finding in the wider education domain that in the minds of teachers categories such as knowledge, beliefs, and conceptions of teaching are inextricably intertwined (Verloop, Van Driel and Meijer, 2001).

A second issue concerns research perspectives. To date, writings on the roles and competencies required to teach programmes at a distance have tended to be developed from the point of view of the institution or researchers, with relatively few studies drawing on the perspectives and experiences of those most closely involved – namely tutors or other staff. Recent work on the skills required in distance education has generally been carried out from three perspectives, that of an 'expert panel' of distance education professionals (Williams, 2003), of researchers (Denis, Watland, Pirotte, and Verday, 2004) and of novice teachers (Cadorath, Harris and Encinas, 2002). Each of these approaches can provide useful insights, but the voice of the practising tutor is 'unheard' as suggested by Lentell (1994). The project described below aims to address this absence.

Research Approaches

The study developed around an unfolding research design (White, Murphy, Shelley, and Baumann, 2005) which facilitates the inclusion of different perspectives from a variety of participants working in various roles: as course designers and writers, as regional academics who are responsible for the management of important aspects of student support and who deal directly with tutors, and the tutors themselves, as well, of course, as students. The project incorporates a series of stages, allowing opportunities for consultation and reflection. In designing the study, a range of elicitation techniques have been used to explore tutor perspectives on the attributes and expertise required of them in their teaching role, and findings are explored further in subsequent phases. The choice of elicitation procedures and reflective techniques for each stage was not predetermined, but was based on what was emerging within the data and the new lines of enquiry that were opening up. The stages of the research process, together with data-gathering procedures and participants, are outlined below in Table 1.

Table 1: Stages of the research process, data-gathering procedures, and participants,

	Data-gathering procedures	Participants
Stage 1	Focus groups, brainstorming techniques	Tutors from one OUUK Region (N=19)
Stage 2	Open-ended questionnaires, and yoked subject technique: individual responses	As for Stage 1 (N=17)
Stage 3	Group interpretation and discussion of revised A & E statements, discussion of tutor maxims and professional development formats	As for Stage 1 (N=20)
Stage 4	Individual responses to revised A & E statements	Tutors in other OU Regions (N=32)
Stage 5	Interviews	Staff tutors and academics with course development roles

Stage 1 ~ Tutor focus groups

This stage involved tutors from one of the OUUK regions that delivered courses in German, French, and Spanish; some were native speakers of the target language and all brought a wide range of experience to their work with the OUUK. During a Staff Development Day for language tutors, tutors met in three groups to consider what they regarded to be the knowledge, skills, and attitudes required to fulfil their roles, using brain-storming techniques, including Brain writing, the Snowball technique, and the Gallery (Open University UK, 2000). Tutors responded first individually, then discussed and categorised the individual findings in groups.

The initial findings from the three groups were analysed by the project team, classified, and refined to remove overlap and repetition. Additionally, the findings were supplemented by reference to relevant literature and the professional expertise of the project team, since one area, ICT for learning at a distance, had drawn very few comments from the tutors and needed to be expanded.

The following eight broad categories were identified:

1. Qualities and affective orientation
2. Pedagogical expertise
3. Subject matter expertise
4. IT skills
5. One-to-one interactive support skills
6. Self-management
7. Group support and management
8. Professional skills and responsibilities

Each of these categories contained further detailed sub-listings.

Stage 2 ~ Tutor responses and the yoked subject technique

Reflection on the taxonomy developed from the preliminary research procedures raised concerns among the research team that these statements appeared largely de-contextualised and codified, providing little indication of the interpretation or significance of each item, or how it functioned in practice. Stage 2 was then developed with the same participants asking them to reflect on the importance of the statements. This was done via open-ended questionnaires to allow for the exploration of tutors' personal understandings of those attributes and expertise which underpin tutoring. An indirect technique was employed to elicit further responses: the yoked subject technique (White, 1994) where tutors were asked to imagine they were talking to a new tutor who wanted to know about the kinds of qualities which are important in distance language tutoring. The yoked subject technique proved to be a particularly rich means of tapping into the way in which tutors reflect on their work, what they identify as key qualities, and how they relate to practice. The importance of qualities such as enthusiasm, approachability, and encouragement was stressed in virtually all the reflective responses of tutors. The data were also analysed with reference to Richards' approach based on teaching maxims (Richards, 1998).

Tutor Maxims

Close analysis of the data suggested that what we were working with were tutors' implicit theories of tutoring – that is, their personal philosophy of what constitutes good instruction for

distance language learning in their particular context. This is spelt out in the work of Richards (1998) who explored teacher maxims in face-to-face classrooms:

> *. . . teachers' belief systems lead to the development of rational principles that serve as a source of how teachers interpret their responsibilities . . . These principles function like rules for best behaviour in they guide the teachers' selection of choices from among a range of alternatives. Hence they function as maxims that guide the teachers' actions* (Richards, 1998, p. 53-54).

As tutors responded to, interpreted, and elaborated on the A & E statements, choosing those which were personally meaningful or significant to them and which guided their practice, it was possible to identify maxims and define what that maxim meant, or the principles they embodied. Within the Stage 2 data, four maxims were identified: (1) maxims of empowerment; (2) appropriateness; (3) honesty; and (4) openness (White, Murphy, Shelley, and Baumann, 2005). The maxim of empowerment, for example, aimed at giving learners a sense of possibility and agency, was made in response to the attribute of 'being able to use coaching or mentoring skills with students' which, in Stage 2, was placed within a category relating to pedagogical expertise. The extract below reflects the tutor's personal understanding of what is important to make progress and succeed as a distance language learner:

> *Whatever their level, your students have in them the ability to become excellent and fluent in the language they learn. (Depending on their skill, it may take 3 years or 30), but that's not the issue: make them realise they have this potential. It is important for distance language teaching because language students often do not realise that they have this strength, this potential in themselves. They need to learn that first.*

The maxim of openness focuses on being approachable to students, and was developed in relation to the category of the qualities and affective orientation which are required by tutors. Given that students are very often reluctant to make contact, even when they have been reassured that tutors are there to assist, the tutor suggests that it is important to be proactive in establishing or maintaining contact, but that this should be done in a low-key way, drawing out the student experience in a relatively non-directive way:

> *If you are approachable, this means the learner feels s/he can approach you – very important if a sense of isolation and 'stewing in own juice' when there's a problem are to be avoided. If the learner finds you approachable then you probably have many of the other important personal qualities (e.g., encouraging, sympathetic, patient, etc.). In practice students are often quite reluctant to take good advantage of a tutor's approachability (even when they acknowledge it). From time to time contact them and see what you can elicit, suggesting that you are always pleased to get an email from them. Always use a light touch.*

The maxim is clearly based on an understanding of the realities of teacher-learner relationships in distance education.

At this stage the study moved from a process of identifying the attributes and expertise required to carry out the roles of a distance language tutor to one of articulating some of the maxims which point towards their underlying philosophy of tutoring and which also influence their practice. While the maxims were not seen as rules to be applied in all contexts and transferable across all boundaries, but instead as principles that individual tutors attempt to adhere to and to put into

practice according to circumstances, it was decided that the maxim approach should be explored further in the next stage and in relation to professional development opportunities.

Stage 3 ~ Group discussion

The next stage of the research project was carried out in the same OUUK Region as before at another Staff Development Day organised for language tutors. The aim in Stage 3 was to give tutors an opportunity to reflect critically on the revised A & E statements as a group and respond to the broad categories and individual items. The sample of tutors overlapped with that of Stage 1, with 20 tutor participants in the group discussions about the statements. The revised version of the A & E statements had been circulated in advance so that tutors could familiarise themselves with it. The three group discussions were led by members of the project team. A second aim was to explore whether there were further maxims which contribute to their practices as tutors. The final, relatively brief part of the discussions explored ways in which the A & E statements and the reflective processes used to date in the study, could form part of professional development opportunities, which was the third of the research aims.

a). Group Responses to the A & E Statements:

The A & E statements generated animated debate in each of the three groups, and proved a useful discussion starter for tutors with different levels of experience in teaching languages at a distance to explore their roles in a way for which they do not normally have either time or opportunity. An important theme which emerged from each of the three groups was the difference between face-to-face and distance teaching, reflecting many of the comments which had been generated in Stage 2. The vast majority of OU languages tutors have experienced both teaching contexts and, especially for those relatively new to teaching at a distance, this was an important discussion. The comparative discussion also allowed them to identify and explore other aspects, in particular teacher-learner relationships as in:

> *It's a unique role, because in the classroom it's very much hands on, you're there, they're in front of you, they can consult you all through the lesson, on almost a day-to-day basis, whereas with something like this, it's much more hands off . . . they might be hundreds of miles away from you, so they've got to work by themselves to a large extent and we've got to work out how to help them.*

An important point of difference affecting teacher-learner relationships was seen to come from the adult-oriented nature of distance language teaching:

> *What I notice with the OU, you have more adult learners, I mean real adults who have a little bit more experience and are a little bit more mature. They have a different learner's style to my daytime higher education students who need a bit more kicking up the backside most of the time.*

The implications of distance for dealing with students and their potential isolation were highlighted, together with the fact that support functions play a distinctive and critical role in tutoring:

> *What I'd focus on, the encouraging . . . because we've got to look at the potential isolation of the OU students . . . sitting there at home and wondering and worrying. So I think what I would really focus on out of all of this, what sets a distance learning tutor apart? It would be the support.*

All these points could be raised by any distance teacher dealing with students who they may never see. Participants also identified particular challenges arising from teaching languages at a distance, in terms of methodology, one of which was how to deal with correcting students' work:

> *If I correct someone who actually comes to class, I may do it differently, I may not actually correct everything, because in a class I may decide to put a point on the board for everybody . . . but* [for distance students] *I personally correct every single mistake.*

The prominence of support functions referred to earlier was extended to include monitoring of progress and providing support for assignment work. Tutors voiced concerns that such functions meant they had insufficient time for actually teaching the language because the face-to-face tutorials and day schools (usually held at weekends) are comparatively infrequent:

> *I don't feel as though I'm actually teaching, I'm more monitoring their progress and helping them understand the TMA* [Tutor Marked Assignment] *and structure the TMA, so a lot of things are not really relevant to me, like assisting students in developing pronunciation.*

Another issue which can be a challenge with these classes of adult language learners is mixed ability, differences between learning needs and wishes, and the impact on teaching focus:

> *I know, for instance, that I might have one or two students who are really keen on an in-depth explanation of grammar and love it to bits but I also have some who will be completely overwhelmed if I start talking about direct or indirect objects or whatever it is so I've got to make sure that I don't scare the ones who are not very grammar oriented off completely, but do enough so the others are satisfied and don't feel, oh what a waste of time. So it has to be balanced depending on who you are working with at the time.*

b). Maxims:

While the tutors were keen to talk about the A & E statements, they found discussing the maxims that might lie behind those skills more difficult. The maxims which were suggested based on findings from Stage 2 were empowerment, appropriateness, honesty, and openness. Tutors felt that these wider concepts subsumed the specific skills and attitudes they used in their work, but they were generally unable to articulate further maxims apart from a fifth one, humility, which was seen as underpinning the development of respectful and productive teacher-learner relationships:

> *I mean humility of the tutor in the face of a student who is, after all, an intelligent human being perhaps with more intelligence and experience of the world than you have, so listen to the student, be prepared to learn from the student in some ways and really respect what they're doing.*

c). Opportunities for Staff Development:

How the research process and research results could relate to professional development opportunities was the final point of discussion. Tutors were keen to see the outcomes from this project incorporated into training materials to be made generally available to all staff with teaching roles. Including the 'voices' of tutors in the form of verbatim extracts was identified as particularly valuable and seen as providing an important bridge to the lived experiences of tutors.

Another way to access and develop best practice which was suggested was through a video of tutors and learners at work which could be used as stimulus for further reflection on practice.

Stage 4 ~ A wider consultation

Up until this point, the tutors involved in the research project were located in just one region of the OUUK. Since there was much informal interest in the research project, and to check whether there were any major differences between tutors in different parts of the United Kingdom, tutors in other OUUK regions were invited to reflect on the importance of the A & E statements and add comments in the same way as had been done for the original sample in Stage 2. Overall, the feedback from this wider sample reflected the same emphases as for the more limited group of tutors. Two are particularly worthy of mention here. First was the comment that 'Isolation is as much a problem for tutors as students' suggesting that ongoing peer support where tutors can share their perspectives and experiences may be as important as access to professional development opportunities. The second dimension concerned the need for tutors to constantly renew their knowledge so they are up-to-date with cultural and linguistic development of the target language:

> *The students are interested in cultural present-day issues as well as up-to-date language.*
>
> *Equally important is the knowledge of the German educational system and teaching methods, constantly looking out for new ways of teaching in both systems and the search for fresh understanding of learning styles, especially those which are good fun, should never be underestimated.*

Stage 5 ~ Interviews with colleagues

The most recent stage involves a shift in focus to staff tutor colleagues and academics responsible for developing teaching materials. A series of interview questions have been developed to explore such issues as to how they had become distance language teachers; what differences they perceived between face-to-face and distance teaching; details of their work; issues, challenges, and constraints they faced in their work; opportunities they took for staff development; and how they saw the future for teaching languages at a distance. The opening part of the interview asks them to comment on the A & E statements. Here just two aspects of preliminary feedback from those interviews are outlined: the issues, challenges, and constraints identified in the language tutor role, and the view of the future. The issues fell into three broad categories. First, the need to manage affective aspects of the role:

- Isolation
- Feeling that tutor ideas are not always valued
- Frustration at not being able to 'keep' all students due to attrition

Time featured as an important constraint:

- Lack of time to give to the kind of support required by certain students
- Lack of time for oral practice students want

Professional and organisational concerns were also expressed:

- Occasionally, lack of consistency of course team response to things (e.g., standard of marking)
- A job that required full commitment, as tutors are expected to read emails, *First Class*, course e-desktops, etc.
- Inflexibility in course structure – no transferability of TMAs
- 60 point course causing dropout at the boundary between levels 1 and 2

The views of the future included high hopes of a 'virtual community' for tutors via the Internet and course conferences, and the hope that technology can be used to improve and enable more sophisticated, instant feedback

Conclusion

Tutors who work within distance education differ markedly from their classroom counterparts in terms of the roles they assume, the ways in which they interact with students, and the attributes and expertise required of them. All these dimensions have changed and will continue to change in response to shifts in technology, the development of learning environments, and in line with political and institutional factors such as the availability of funding and quality control procedures. The research cycle developed here has involved the tutors, giving them a voice and offering them the opportunity to articulate their professionalism in the context of the teaching of language at a distance at the OUUK. By putting emphasis on tutors in this manner, the perceived undervaluing of tutors, as described by J. Tait (2004) and Lentell (1994; 2003), has been counterbalanced since they are the focus of this investigation. The unfolding research design has been found to be particularly valuable, since it allows for flexibility and develops and maintains contact with tutor participants, giving them feedback on the research process and findings from each stage. Subsequent stages of research have extended the process to include more tutors and other distance language teaching professionals.

Overall, the original aims of the project have been met. Tutors have been given extensive opportunities to articulate those skills and expertise they deem necessary (on the basis of their experience in this field) to perform well in their role as distance education tutors and unique insights have been gained into the nature of professional practice in the field.

Looking ahead, a further expansion of the project is planned by carrying out a series of interviews with tutors of languages at a distance in other parts of Europe and elsewhere, so as to gain an overview of other contexts, teaching systems, and language groups. These interviews will serve as a basis for case studies, adding another dimension to the research. A similar series of interviews with those who write and produce distance education materials, as well as with students of languages at a distance, is also planned. The extension of this project to a variety of other contexts should demonstrate its value for tutors working in institutions which operate differently from the Open University UK.

In conclusion, this study of the attributes and expertise required by distance language tutors is a promising domain of enquiry, and highlights two additional lines of research which have the potential to expand our understanding of the field. First, there is a need to explore the ways in which language tutor attributes and expertise develop and change, not only as tutors acquire more experience, but as they enter new environments, particularly online environments and virtual support networks. Second, there is a need to explore the relationship between tutor reflection and practice, that is the relationship between how tutors reflect on and articulate their attributes and expertise and how this relates to what actually happens in interaction with students. A further challenge is to explore more deeply how processes of critical reflection on practice can best be incorporated into professional development opportunities and tutor support networks. Finally, a

particularly rewarding aspect of the research process has been the extent to which tutors appreciated and engaged with the range of opportunities to reflect on the qualities they had developed, the way these related to aspects of their practice, and the value they placed on developing optimal teaching-learning relationships with students.

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International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September - 2006

Identification, Job Satisfaction and Work Motivation among Tutors at the Open University of Israel

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Abstract

Tutors working for The Open University of Israel (OUI), a distance learning institution, are often the only academic staff who have direct contact with students. Their performance is therefore crucial for the university. The nature of their job, however, might hinder optimal performance: they are temporary and part time employees, and thus have low job security. Their academic freedom is limited and, in most OUI learning centers, they are professionally isolated. These factors can negatively affect tutors' organizational identification, job satisfaction, and motivation. This study is focused on two sets of variables that serve as possible predictors of identification, satisfaction, and motivation: (1) role perceptions (job importance and job richness); and (2) organizational attachment (relations with the university, attentiveness of the university and the university's appreciation of their work). Seventy-one (n = 71) tutors completed a general survey. Regression analysis and path analysis revealed that identification and job satisfaction were well predicted by job importance and organizational attachment, while work motivation was not. Theoretical and practical implications are discussed.

Keywords: Distance learning; tutors; organizational identification; job satisfaction; work motivation

Introduction

Course teams in distance learning universities share an important feature which distinguishes them from staff in conventional higher institutions. In a conventional university, academic courses are conducted by faculty members with the occasional aid of teaching assistants. They are responsible for both the course material and the teaching. On the other hand, in the Open University of Israel (OUI), as in some other distance learning institutions, there is a different division of labor. Senior faculty members develop the course material (textbooks, study guides, readings, etc.), which are designed didactically for self and distance learning. Generally, however, faculty members are not the people who teach the course. This is done, first and foremost, by the course material package itself, which includes exercises, add-on devices, Internet sites, and administrative instructions such as timetables and other useful guidelines. Instructional responsibilities rest on the shoulders of the course coordinator (CC), who runs the academic as well as the organizational aspects of the course, and coordinates the activities in the different tutorial groups, each run by a separate tutor. The CC prepares the tutorial outlines, assignments, and exams. When the course enrollment is small, the CC runs a single tutorial group or few of them. When enrollment is large and dispersed geographically, however, there are several or even

many tutorial groups. Thus, the CC has to recruit tutors, train them for the specific requirements of the course, monitor their academic and educational performance, and be responsible for updating their knowledge, skills, and abilities when the course material is renewed, upgraded, or changed.

Faculty members and course coordinators are permanent OUI employees and work on its main campus. Tutors are temporary OUI employees (their contract is renewed every semester) and perform their duties in their local OUI learning center. In contrast with their low job security and wages, and low level of academic freedom, these tutors responsibilities are numerous and in many courses they are "the face" of the university, as the only OUI staff with whom students meet and know directly. Therefore, we identify this group of tutors as strategically important for the quality and attractiveness of the university, but in the same vein as, potentially, a vulnerable link in the Open University's educational chain.

Job characteristics and the nature of relationships between the employee (tutors in the OUI in our study) and the organization (the OUI) are two sets of variables which are often studied in connection with satisfaction, identification with the organization, and motivation. Research studies on job characteristics rely on the well-known and well-researched theory of Hackman and Oldham (1975; 1976) and their model of the relationships between core job characteristics, critical psychological states, and their impact on several affective, motivational, and performance outcomes (Fried and Ferris, 1987; Loher, Noe, Moeller and Fitzgerald, 1985; Taber and Taylor, 1990; Renn and Vandenberg, 1995) see endnote 1.They proposed that jobs which enable workers to exercise different skills and abilities (skill variety), to complete identifiable pieces of work (task identity), to apprehend the importance of the job (task significance), to plan the work and its space (autonomy), and which have a built-in feedback mechanism (feedback), lead to favorable results in terms of satisfaction, work motivation, and work performance. Another body of research in this context relates to job involvement (Kanungo, 1982), and work role centrality (Mannheim, Baruch and Tal, 1997). Work centered individuals have a high need for achievement, are satisfied with their job, and are more committed to their organization.

According to Hackman and Oldham's model (Hackman and Oldham, 1976), some characteristics of the tutors' job suggest a possible low potential for work motivation. Tutors have very little impact on the course material, course assignments, exams, and even the tutorials. Their job autonomy is relatively limited. The temporariness of their job may decrease their job centrality, motivation, and satisfaction. On the other hand, other characteristics of their job (skill variety and task significance) depend less on the organizational definition and may be more related to the tutors' perceptions.

Employees' relations with their employing organization are also well documented in many research studies. Among the most researched themes are identification with the organization, satisfaction, and work motivation. In a review on the correlates of perceived organizational support, Rhoades and Eisenberger (2002) demonstrated that perceived support, defined by how an organization values its employees' contribution and cares about their well being, is related to favorable outcomes for employees (job satisfaction, positive mood) and for the organization (commitment, performance).

Organizational identification and commitment are known to be positively related with contribution to the organization and job satisfaction (Mael and Ashforth, 1992; Meyer and Allen, 1997; Meyer, Stanley, Herscovitch and Topolnytsky, 2002), and negatively related with turnover intentions (Abrams, Ando and Hinkle, 1998; Mael and Ashforth, 1995; Ellemers, Spears and Doosje, 1997; Wan-Huggins, Riordan and Griffeth, 1998). Job satisfaction itself is expected to

grow as employees feel that they have enrichment potential in their job (LePine, Erez and Johnson, 2002; Organ and Ryan, 1995).

Competitive and high-performance organizations, such as some universities, expect their workforce to perform above and beyond their formal duties in return for more tangible and symbolic rewards and support, including appreciation and respect. Another dimension of these expectations for extra behavioral performance has recently been researched around the theme of Organizational Citizenship Behavior (OCB) (Borman and Penner, 2001; Organ and Ryan, 1995; Schappe, 1998). In a paper devoted to the causes of OCB, Rioux and Penner (2001) wrote: "Much of the current research on the causes of OCB either implicitly or explicitly assumes that engaging in such behavior is a reaction or a response to an individual's perceptions of his or her job and the organization for which he or she works" (p. 1306).

Since the tutors are almost the only academic staff in direct contact with students, their role perceptions, their relations with the university, and their organizational identification, motivation, and satisfaction are very important to the OUI. This concern is the *raison d'etre* for the present study. Its uniqueness is in applying concepts from job characteristics and organizational attachment theories to employees in the organizational context of a distance learning institution.

Two sets of predictor variables were used in this study: tutors' job characteristics and the nature of the attachment of the tutors to the university. We applied two notions of Hackman and Oldham's (1976) well-known scheme of job characteristics: perceived importance of the job (task significance in Hackman and Oldham's scheme) and its richness (skill variety in their scheme). Concerning "organizational attachment," we borrowed three variables from the OCB literature: the perceived relationship between the tutors and the university, the attentiveness of the university to tutors' needs or suggestions, and its appreciation of the tutors' work.

Thus, the predictor variables in our study were: job characteristics (perceived importance of the job, perceived richness of the job) and organizational attachment (relationship with the university, attentiveness of the university to tutors' needs/ suggestions, and the appreciation of tutors' work by the university – as perceived by the tutor). The three criterion variables were: identification with the university, job satisfaction, and work motivation (willingness to exert above and beyond duties).

Method

Seventy-one tutors (n = 71) (representing a response rate of 42 percent) from the Department of Education and Psychology completed a 107-item Likert-type questionnaire. Their mean age was 36 (compared to a mean age of 39 for all university tutors). 75.4 percent were females (compared to 61.3 percent for all university tutors). The questionnaire included questions regarding job perception, relationship with the university in general and with different departments in particular, amount and quality of pre-training and on-the-job training, identification with the organization, satisfaction and motivation, as well as some background questions regarding gender, age, and length of service. We used the data from this general survey for the present study see endnote 2. For each of the variables of interest there were one or more questions.

Predictor Variables

Job characteristics:

(1) *Importance of the job:* "How important is your job as a tutor to you?" (from "1-not at all" to "5-very much").

(2) *Richness of the job:* The main responsibility of tutors is the teaching of the course material. However, there are three additional tasks in which tutors might be involved: training for learning skills, counseling students in their curriculum, and representing the university. For each of the additional tasks, tutors were asked "To what extent do you feel you have to . . . (train learning skills/ counsel students/ represent the university)" (from "1-little" to "3-very much"). Job richness was defined as the sum of the scores of the three items (values score from 3 to 9).

Organizational attachment:

(3) *Relationship with the university:* "How would you define your relation with the university?" (from "1-not good at all" to "5-very good") see endnote 3.

(4) *Attentiveness of the university:* "To what extent do you feel the university is attentive to your needs?" (from "1-not at all" to "5-very much").

(5) *Appreciation by the university:* "To what extent does the university appreciate your work as a tutor?" (from "1-not at all" to "5-very much").

We did not combine the predictors into composite indices. However, we calculated reliability for the three items of organizational attachment (Cronbach's Alpha = .866) and the two job characteristics items (which did not compromise any reliable scale).

Criterion Variables

(6) *Identification with the university:* "To what extent do you identify with the university?" (from "1-not at all" to "5-very much").

(7) *Job satisfaction:* "Are you satisfied with your job as a tutor?" (from "1-not at all" to "5-very much").

(8) *Work motivation (willingness to exert above and beyond duties):* As already mentioned, tutors are responsible only for the tutorial meetings and the scoring of assignments. However, we also asked them about their willingness to be involved in six additional tasks which are normally the duty of the CCs: composing assignments, specifying criteria for marking the assignments, composing exams, specifying criteria for marking the exams, marking the exams, and organizing the online activity on their course Internet site. For each of the six listed tasks they could choose one of three answers: "1- don't want", "2- want", "3- want very much". For each aspect a dichotomous variable was defined: 0 (for those who chose the first category) and 1 (for those who chose either the second or the third category). Willingness to exert more was defined as the sum of the answers to the six separate questions, thus a variable in the range from 0 to 6.

Results

Table 1 presents means, standard deviations, and correlations of the predictor and criterion variables in the study.

Table 1. Descriptive Statistics and Correlations for Study Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Relation	3.5	1.0	-						
2. Attentive	3.0	1.0	0.73**	-					
3. Appreciate	3.2	1.0	0.61**	0.71**	-				
4. Job Import.	4.3	0.7	0.38**	0.23	0.42**	-			
5. Job Richn.	6.1	1.8	0.23**	0.14	0.28*	0.18	-		
6. Identification	3.3	1.0	0.69**	0.54**	0.52**	0.47**	0.33**	-	
7. Job Satisf.	4.1	0.8	0.56**	0.53**	0.55**	0.43**	0.10	0.50**	-
8. Motivation	4.6	1.7	0.18	0.14	0.23	0.06	0.24*	0.09	0.12

*p<.05, two-tailed. **p<.01, two-tailed.

As to job characteristics, tutors ranked their job as relatively high in importance. They defined their job in broad terms by adding, on average, two additional tasks to their formal duties (of the three presented to them). Concerning the second set of predictor variables (relation with the university, perceived attentiveness of the university and its perceived appreciation of the tutor's job) — tutors chose (on average) the middle rank.

Univariate Analysis: A Regression Model

First we examined the relationships between each of the three criterion variables and the five predictors in a univariate enter regression analysis. Identification and satisfaction of the OUI tutors are well predicted by their job characteristics and organizational attachment (R square of .564 and .461 respectively). The third criterion variable, work motivation, however, is poorly explained by the univariate regression (see Tables 2, 3, and 4).

In terms of unique effects (standardized Bs or betas), we find that only relations with the university, job importance, and job richness — as perceived by tutors, and only for identification — have a substantial, positive, and significant power. This means that in a univariate model our predictors are quite weak in explaining satisfaction and work motivation; but three of them (from both groups of the predictor variables) have reasonable effects on organizational identification.

Table 2. A Univariate Regression Analysis for variables predicting "Identification with the university."

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(5,65)	Sig.
.751	.564	.529	.696	16.028	<.001*
	Un-standardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig
(Constant)	-.819	.597		-1.371	.175
Relation	.522	.136	.498	3.852	<.001*
Attentiveness	.084	.151	.080	.556	.580
Appreciation	.005	.134	.005	.040	.968
Job importance	.325	.147	.216	2.209	.031*
Job richness	.100	.049	.184	2.058	.044*
** Significant at .05 level*					

Table 3. A Univariate Regression Analysis for variables predicting "Job satisfaction."

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(5,65)	Sig.
.679	.461	.418	.658	10.607	<.001*
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig
(Constant)	1.101	.580		1.897	.062
Relation	.245	.130	.266	1.888	.064
Attentiveness	.147	.142	.163	1.034	.305
Appreciation	.208	.126	.235	1.649	.104
Job importance	.249	.137	.196	1.810	.075
Job richness	-.018	.049	-.035	-.357	.722

Table 4. A Univariate Regression Analysis for variables predicting "Job motivation."

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(5,65)	Sig.
.271	.073	-.001	1.50040	.982	.436
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	2.950	1.290		2.286	.026*
Relation	.125	.300	.081	.416	.679
Attentiveness	-.120	.332	-.079	-.361	.719
Appreciation	.302	.289	.202	1.043	.301
Job importance	-.192	.311	-.086	-.618	.539
Job richness	.128	.105	.159	1.219	.227
** Significant at .05 level*					

Multivariate Analysis: A Path Model

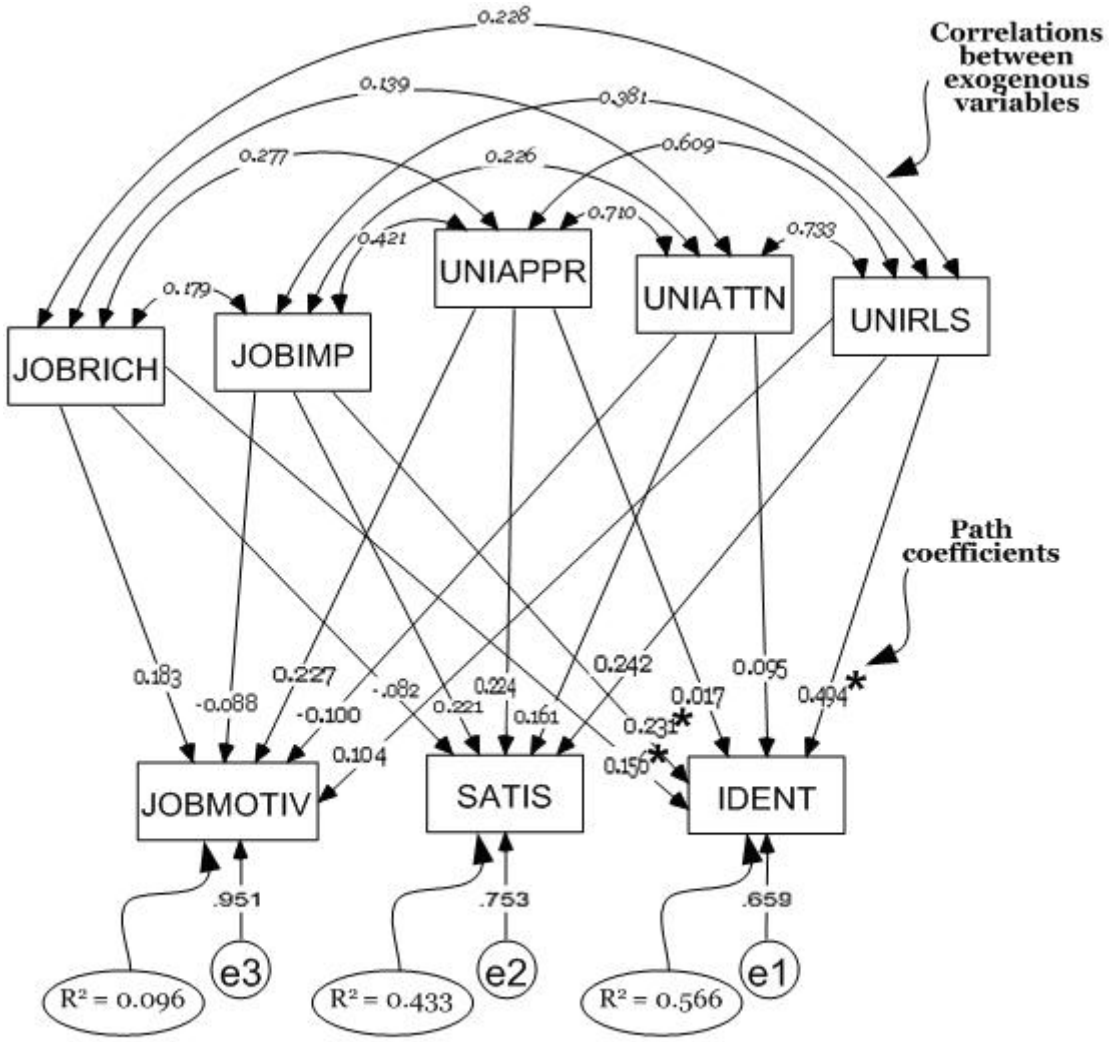
In this section, we present a multivariate attempt to decipher the pattern of relationships of the criterion and predictor variables by a recursive path analysis, using the AMOS 5.0 algorithm for the structural equation models. As is well known, path models cannot establish the truth of a pattern of relationships; they can only examine the goodness of fit between hypothesized models and empirical data. However, since it is possible in principle to find more than a single solution to a relationships pattern (that is, a solution with reasonable goodness of fit), we still need to validate the findings of a path model by the context and content of the subject matter.

In our case of three criterion variables and five predictor variables, or in terms of path analysis, exogenous and endogenous variables, the only model with acceptable goodness of fit index (GFI and AGFI) and insignificant Chi Square is shown in Figure 1 and the following goodness-of-fit results see endnote 4.

Table 5. Goodness-of-fit results

Goodness of Fit	NPAR	CMIN	DF	P	CMIN/DF	GFI	AGFI
Our model	33	1.562	3	0.668	0.521	0.994	**0.949**
Saturated model	36	0.000	0			1.000	
The model is recursive and estimation is by Generalized Least Squares							
Chi-square = 1.562 (minimum was achieved) Degrees of freedom = 3 Probability level = 0.668							

Figure 1. A path model of the effect of perceived organizational attachment and perceived job characteristics on organizational identification, job satisfaction, and motivation.



Prior to interpreting the model, a short reference to possible other models is required. We cannot show all the unfitted models that we tested (most of them were trials with different technical configurations of the residual terms). A report of two major alternatives, however, is in place:

(a) Criteria (work motivation, job satisfaction, and identification with the university) were predicted by perceived organizational attachment (relationship with the university, attentiveness of the university, and appreciation by the university), mediated by perceived job characteristics (importance and richness of the job). This model has an acceptable level of goodness-of-fit. Our final model, however, is better both in terms of goodness-of-fit and in terms of parsimony — e.g., there is no added information in this model beyond the simpler mode, that is obtained from the indirect effects of the predictors. The direct effects are exactly as those in the simpler model.

(b) Criteria were predicted by perceived job characteristics, mediated by perceived organizational attachment. This model has an unacceptable level of goodness-of-fit, and must be rejected.

Thus, we did not find a better alternative path model for this set of variables; therefore, in this particular case, we can focus on the interpretation of the better model. The relationship pattern revealed in the univariate analysis is basically the same in this multivariate analysis. As in the single regression analyses, also in the path analysis, we find that identification with the university and job satisfaction are well predicted by organizational attachment and job characteristics (R square of .566 and .433 respectively). Here too work motivation is poorly explained by the exogenous variables (R square of .096). In terms of path coefficients (betas), we find that only relations with the university, job importance, and job richness, have some positive and significant power (beta > .22), and this mainly on identification.

The path analysis adds some further information about the relationships between the exogenous and endogenous variables. First, it reveals strong correlations among most of the exogenous variables (yet, not too strong to establish multi-colinearity). We find these high correlations especially in the organizational attachment set and job importance. It seems that job importance is perhaps an indicator of organizational prestige and attachment, as well as a characteristic of the job itself.

Support for this conclusion is obtained from a series of reliability tests on these four items (Cronbach's Alpha = .818) and on the three items of organizational attachment (Cronbach's Alpha = .866) – figures which are fairly closed see endnote 5.

It also supports the importance of the organizational attachment set over the job characteristics set in predicting identification and satisfaction. This finding, which we see in the univariate regressions as well, is fine tuned in the path analysis when we include the effects of the error terms of the exogenous variables (e1, e2 and e3). Then we get a relatively lower effect of the error term e1 of the well explained identification variable, and a higher effect of the error term e3 of the poorly explained job importance variable.

Discussion

OUI tutors are often the only academic staff who have direct contact with students. Their performance is therefore crucial for the university. Their academic qualifications can be monitored by strict selection and training processes. Their behavior, however, is also influenced by other factors such as organizational identification, job satisfaction, and motivation, which cannot easily be managed and need vigorous academic leadership on the part of the university, and a sensitive and efficient response to the needs of this special group of temporary employees.

Two sets of variables were chosen as possible predictors of organizational identification, job satisfaction, and motivation (defined as willingness to do more). The perceived job characteristic set included "perceived job importance" and "perceived job richness." Tutors ranked their job as relatively high in its importance (a mean of 4.3 on a 1-5 Likert-type question). Although their main job is to instruct students during the tutorials, most tutors defined their job more broadly, adding on average two additional tasks to their formal duties.

The second set of predictor variables which was chosen focused on the organizational attachment of tutors. They were specifically asked about the quality of their relation with the university, about the attentiveness of the university to their needs, and about their perception of the university's appreciation of their work as tutors. For all three variables, the average rank chosen by tutors was 3 (the middle rank).

In spite of their low security, low level of academic freedom, low job centrality and isolation (not being in the main university campus), tutors perceive their job as important and "rich." These

encouraging results (from the university's point of view) might be an outcome of two opposing characteristics of the tutors' job. On the one hand, tutors' job autonomy is very limited. On the other, they are the main and often the only university representatives in contact with students; therefore their power and authority, and thus autonomy, is actually high. The university delegates its power to tutors, thus enabling them to respond to students' pedagogical and administrative questions and needs. This delegation of power, however, is strictly controlled by the university, allowing the tutors very little flexibility. It seems that this delegation of power and the fact that for the students "the tutor is the university" influence the tutors' perceptions regarding their job importance and richness.

The regression analysis, as well as the path analysis, reveal that identification and job satisfaction are well predicted by job importance and organizational attachment, while work motivation is not. Thus, the tutors' identification with the university, and their job satisfaction, are sensitive to the quality of the relationship with the university, to the attention of the university, to the appreciation of their work and to their job importance.

The path analysis adds more information, especially regarding the correlations between the predictor variables. The three variables in the organizational attachment set are highly correlated, while for the two variables in the job characteristics set the correlation are much lower. Despite our division of the predictor variables into two sets, their inter-correlations reveal some overlap: perceived job importance is correlated more with variables in the organizational attachment set than with perceived job richness. Thus, perceived job importance increases as tutors feel the university is sensitive to their needs and appreciates their work.

It should be in the interest of the university to increase job satisfaction and organizational identification, as both have an impact on work performance (Meyer et al., 2002). Increasing the university attachment variables should, according to the results, contribute to such a rise. At a relatively low cost, the university can take measures to improve the relationship between the tutors and the university: for example, inviting tutors to special university events normally open only to permanent employees; listening more frequently to their problems and needs via surveys (like those given to students); enabling those who are interested to undertake additional tasks (e.g., composing assignments); and giving periodic feedback regarding various aspects of their job (e.g., visit a tutorial session, review their marking of assignments). These steps (some of which have already been taken by the university) might also improve the tutors' feelings about the university's appreciation of their work, its attentiveness to their needs, and its perception of the importance of their job.

We used tutors' responses regarding their willingness to do more, as an indicator of their job motivation. This variable, however, did not correlate substantially with any of the other criterion or predictor variables (contrary to what was expected based on the relevant literature). One reason for the present results might be the fact that tutors assumed that the extra duties suggested in the questionnaire would give them extra payment. This might also explain the relatively high average score on this variable — tutors were willing to do between four to five additional tasks (out of the six listed). Willingness to do additional work for extra money does not necessarily indicate high job motivation. Nevertheless, taking part in additional instructional duties (e.g., writing assignments and exams), can increase skill variety in Hackman and Oldham's (1975; 1976) terms, interest in the job and involvement, all contributory factors to job satisfaction and motivation.

The instructional team in a distance learning university such as the OUI, has a unique structure which has repercussions on the job definition and characteristics of the team members. In certain configurations, tutors' job characteristics have a potential for work alienation and its manifest and latent signs of dissatisfaction, low motivation and low morale. These might affect tutors'

performance and the way they represent the university when in direct contact with students. It is therefore very much in the interest of the OUI to strengthen and improve its relations with this segment of its workforce. The survey on which the present study was based, was a first step in an effort to open a line of dialogue between the tutors and the university. We used data from this survey to explore some of the potential sources of alienation, and through a path model and a regression analysis we were able to identify some of the factors which can be managed skillfully to increase satisfaction, motivation and identification with the university.

The suggested model, of course, needs further elaboration and testing in future surveys. Expansion should be made by enlarging the sample, taking the whole population of tutors in the OUI (from all academic departments). The present sample (from the Education and Psychology department) is relatively young (a mean of 36 in contrast to a mean of 39 for all OUI tutors) and contains more females (75.4 percent in contrast to 61.3 percent). It would be interesting to see if differences in these demographic variables will affect the suggested model. Testing and elaboration of the model should also be done in future surveys by using standard scales for the model's exogenous and endogenous variables.

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Endnotes

1. See the application of Hackman and Oldham's model to distance learning systems in the work done at the Laboratory for Integrated Learning and Technology (LILT) of Illinois State University:
http://lilt.ilstu.edu/saskers/thesis/theoretical_background.htm

Also, a short literature review and the use of a path model to examine their model, see: http://www.chrms.org/library/critic/critic1a.htm

2. As we used the general university survey for our study, we did not utilize standard measures for job characteristics (e.g., measures used by Hackman and Oldham) and for organizational attachment — e.g., questionnaires used by Mowday, Steers and Porter (1979) or Allen and Meyer (1990).

3. It should be noted that "the university" is perhaps represented to the tutors by the course coordinator and a few other role incumbents in the psychology department. They are rarely exposed to the full activities and behavior of the "university," or even to those the psychology department. They are dispersed geographically, and meet each other only infrequently in the university main campus.

4. There are many tests of goodness of fit. We used two of the most common, GFI, and the Chi Square test (fitted models should have insignificant Chi Square).

5. When we add the fifth item to the analysis, JOBRICH, Cronbach's Alpha drops to .680. The two job characteristics, JOBIMP and JOBRICH, do not comprise any reliable scale.

International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September – 2006

A Multi-Island Situation Without the Ocean: Tutors' perceptions about working in isolation from colleagues

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Abstract

Distance education is generally seen as a very isolating experience for students, but one often forgets that it can be an equally isolating experience for teaching staff who oftentimes work in isolation from colleagues. This study examines the experiences of nine tutors at the Reading and Writing Centres of one of the 10 biggest universities in the world, *Universtiy of South Africa* (*Unisa*). The tutors work at different Regional Offices across South Africa. This study examines both quantitative data (closed-ended questions) and qualitative data (open-ended questions) obtained from questionnaires. This study seeks to determine to what extent administrative support, professional development support, and colleague support influence tutors' feelings of isolation. This paper takes the position that if feelings of isolation are curbed, staff retention will be improved, which means that the university can retain valuable experience. Findings show that contact with and collaboration between and among colleagues significantly decrease feelings of isolation. Other important methods of curbing isolation are regular training and continuous administrative support.

Keywords: Distance education; open education; tutor isolation; staff isolation; collaboration; administrative support; professional support; colleague support

Introduction

Distance education is generally seen as an isolating experience for students (Purches, 1993; Rendon, 2001), but one often forgets that it can be an equally isolating experience for teaching staff, who typically have to work in isolation from colleagues. This is the case for many lecturers and tutors who work for the University of South Africa (*Unisa*), which with 215,825 registered students as of 2004 (Pityana, 2004), is one of the 10 largest mega-universities in the world (Daniel, 1996; Potashnik and Capper, *n.d.*). This study examines the experiences of nine tutors working at *Unisa's* Reading and Writing Centres at 10 different regional offices across the country.

This study seeks to determine to what extent colleague support, administrative support, and professional development support, influence tutors' feelings of isolation. This paper takes the position that if feelings of isolation are curbed, staff retention will be improved, which subsequently means that universities will retain valuable experience. Such action prevents a 'reinventing the wheel' phenomenon, wherein experienced and knowledgeable staff members are

continuously replaced by new and inexperienced staff members. Such a phenomenon could potentially cripple an academic department that, ideally, should be inventing new ways of teaching and to generate new knowledge by building on previous experience.

Based on the findings about the main causes of feelings of isolation, suggestions are made about how administrative staff, academic support staff and fellow tutors can establish a more supportive and effective working environment.

Background

In 2004/05, *Unisa* established Reading and Writing Centres at 12 regional offices across South Africa. The aim of these regional offices is to provide administrative and learner support to students across the country. According to Schrum and Ohler (2005) ". . . distance education represents a way of communicating with geographically dispersed individuals and groups" (p. 61). Since only a small percentage of students studying through *Unisa* have access to the Internet and many are scattered across the country, it is necessary to provide regional-level support. Unlike many of *Unisa's* American, European, and Australian open and distance learning counterparts, it is unrealistic for *Unisa*'s Reading and Writing Centre to use an online writing lab as its primary source of service delivery. As such, tutors must be appointed across the country. Whilst this arrangement is practical for many students, it means that *Unisa*'s Reading and Writing Centre tutors, to a large extent, work in professional isolation from their peers and colleagues.

The number of students served by *Unisa*'s regional offices varies. Seven tutors are appointed on a part-time basis, and five are appointed on a full-time basis. Five of the part-time tutors also work part-time at other tertiary institutions. Seven tutors are currently studying for further postgraduate qualifications.

The first *Unisa* Reading and Writing Centre was opened in September 2004. In March 2006, four tutors had been working at the Reading and Writing Centres for longer than 12 months, three had been working at the Reading and Writing Centres for three to six months, and two tutors had been working at the Reading and Writing Centres for less than three months. The tutors are managed by one co-ordinator.

The duties of the Reading and Writing tutors include two undergraduate three-hour English for Academic Purposes (EAP) workshops per week, individual consultations with undergraduate and postgraduate students, facilitating the use of self-study reading programmes, marketing the Reading and Writing Centres to students at the various regional offices, and various administrative duties. Several tutors are also involved in postgraduate workshops and English for Specific Purposes (ESP) projects. All tutors are encouraged to do research at their centres, to present their findings at conferences, and finally publish their findings in accredited journals. The challenge for the Reading and Writing tutors is to stay motivated and successfully accomplish all of the above tasks, whilst working in professional isolation at their regional offices, often not seeing any fellow tutors for six months or more.

Literature Review

Traditionally, communication in distance education has mostly been technology mediated. In the past, this communication consisted mostly of satellite broadcasting and audio-conferencing (Schrum and Ohler, 2005). In the past few decades, online learning has largely replaced these

methods of communication (Schrum and Ohler, 2005; Berge, 2004; Wheeler, 2004; Oravec, 2005). Schrum and Ohler (2005) describe a National Center for Education Statistics (NCES) study in 1997 which showed that instructors very rarely visit remote sites. Other means of communication such as "toll-free telephone, email, or other online access models" (Schrum and Ohler, 2005, p. 62) are used much more frequently. For the Reading and Writing Centres at *Unisa*, this was not a feasible option, as many students (especially undergraduate students, which were initially the major target group) do not have Internet access – in fact, many have never worked on a computer before. The Reading and Writing Centres therefore decided, from their inception, to follow this advice of Wheeler (2004, p. 15):

> *Instead of students going to university, the successful university of the future will go to the students. The mega-universities have already achieved considerable success in offering cost-effective access to all comers (Daniel, 1996). Many traditional universities have also started this process, investing in computer networks,* ***developing human infrastructures*** *to support the process, and creating new materials in preparation* [author bolding].

The Commonwealth of Learning's first Strategic Plan (Lockwood and Latchem, 2004) discusses a similar situation, where the "artificial and counterproductive distinction" between distance and residential education is weakening due to the continuing "global process of educational reform" (p. 160).

Although integrating characteristics of distance and residential institutions and bringing 'human infrastructures' to the students is currently the best answer in the African context, it still can be an isolating experience for those staff members who do not share the same geographical space with their colleagues. "Such situations, where communications are difficult and professional contacts rare, often leave people feeling alone, with a sense of being forgotten" (Weeks, 1994, p. 8). Weeks (1994) also reminds readers that "isolation can be anywhere: in large urban areas even, as well as remote islands in archipelagos" (p. 9).

Various recommendations have been made in the literature regarding curbing isolation in a distance education environment. The three main themes that emerge are the need for skills development, collaboration, and coordination.

Skills Development

The most recurring theme is that of skills development. According to Wheeler (2004): "Without staff development, lecturers may be isolated in their work, and unaware of new methods, technologies, and applications" (p. 15). The Commonwealth of Learning's first Strategic Plan also stresses that training is a "key function," because a lot of the "personnel in distance education institutions come from other educational and professional sectors and require training to adapt their skills to the contexts of distance education and open learning" (Lockwood and Latchem, 2004, p. 160). It also points out that because of the 'breaking down' of the distinction between distance and residential education, a 'supporting process of skills development' is necessary for both types of educational institutions, so that personnel at both distance and residential universities can learn how to function effectively in this changing environment (Lockwood and Latchem, 2004).

Participants in the Schrum and Ohler (2005) study had a great need for workshops "to assist in all development" when teaching at a distance learning institution. Participants in the Lockwood and

Latchem study "observed that the training events had helped to strengthen regional, national and international understanding, foster groups with shared interests, and encourage collaboration between participants – all of which were highly valued"(Lockwood and Latchem, 2004, p. 171). These researchers therefore suggest that both external and local staff developers should assist in training, and that training must be varied to include face-to-face delivery and online or distance education.

Weeks (1994) lists the following as advantages for face-to-face, centralised courses: "key people can be brought together;" "contact with HQ staff provides a good communication opportunity;" a "wide range of resources [are] available," there are "good mixed group for interaction and discussion," participants are "away from distractions of regional office;" there are "opportunities for social activities;" and such training "raises the vision of participants beyond local horizons" (Weeks, 1994, p. 34). Reasons why this should be alternated with some form of regional, online, or distance training include: "regions [are] left without staff;" the "cost of transport and accommodation;" and a "temptation to cover too much to ensure efficient use of funds," which results in "too much, too thinly spread and easily forgotten" information (Weeks, 1994, p. 34). An interesting aspect that participants in the Lockwood and Latchem (2004) study pointed out, was that case studies and practices used in training are taken from developed countries. Clearly staff from developing countries feel that their situation is not the same as that of developed countries, and therefore it would be unreasonable and possibly counter effective not to adapt training to the situation of the personnel being trained.

Collaboration

According to Berge (2004)"the nature of work is changing, forcing a move from Fordist knowledge acquisition in a hierarchical structure to constructivist, problem-solving learning in flat organizational structures" (p. 2). This introduces another recurring theme, namely collaboration. Institutions and individuals working in isolation need to become more creative and proactive in solving new problems presented by a changing higher education environment.

Wheeler (2004) feels that universities should collaborate "in a distributed manner, networking to share resources and expertise, to exploit the growing part-time flexible learning market" (p. 15). Schrum and Ohler (2005) agree that "increasing collaboration and communication among all stakeholders" is vital (p. 75). In their study, faculty members involved in distance education felt that the administration should help them "to interact with each other for the purpose of sharing insights and skills and to speak with a unified voice to articulate concerns" (p. 75). In a study about school clustering (i.e., schools in the same area that are cooperating for events and activities for the mutual benefit of all schools), Ribchester and Edwards (1998) found that this type of collaboration "can help to counter potential staff isolation, offering, at the very least, an opportunity to discuss problems and 'let off steam' with a wider range of teachers in similar circumstances" (p. 284).

One impediment of collaboration might be costs, as the "movement of pupils and staff is time-consuming and costly, and may lead to frustrations over the availability of shared resources" (Ribchester and Edwards, 1998, p. 286). Using technology (i.e., the Internet) is a more cost effective way of solving some of the problems of higher education (Wheeler, 2004), including staff isolation. Exchanging "learning materials, resources and subject expertise" can be facilitated by technology (Ribchester and Edwards, 1998, p. 290) .

Coordination

Another need that staff working in isolation have is coordination, as Schrum and Ohler (2005) point out. They specifically stress the "administration of distance education in practical, real terms, including planning, training and facilitating." They recommend that a centralised coordinating mechanism be instituted at the University of Alaska to help with administrative and academic support, such as "course sequencing, program planning, advertising, providing support (pedagogical, developmental, institutional, and technological), and evaluating distance education experiences" (Schrum and Ohler, 2005 p. 78). They point out that seemingly minor details can "confound faculty . . . and staff", and can be "impediments to effective distance education" (Schrum and Ohler, p. 19). Surely the same will apply to many other distance education institutions.

One 'seemingly minor detail' that might impede the effective functioning of an educational institution is what Wheeler (2004) terms "casualization." According to Wheeler (2004) career uncertainty resulting from fixed-term contract positions is problematic. He points out that many universities in the US and UK appoint new staff members on contracts of three years or less. Already, Wheeler says "there is uncertainty for the future of conventional university education, because many academics are uncertain of their own career futures" (Wheeler, 2004, p. 14). Such uncertainty stemming from job insecurity can be exacerbated in an environment where tutors are isolated from their colleagues. Staff members are the most valuable asset of any university, and for "universities to survive, talented and innovative staff must be retained, and this may only be achieved by the offer of more security, higher rewards, and greater job satisfaction" (Wheeler, 2004, p.14).

Methodology

In view of the trends identified by the literature thus far, this study aimed to determine tutors' perceptions regarding administrative support, professional development support, and colleague support at an African ODL university, and the influence of such support on possible feelings of isolation experienced by tutors. The purpose of this is to make some suggestions about how administrative personnel and structures, fellow tutors, and co-ordinators, can support tutors to overcome feelings of isolation and to become more inter-connected.

Using questionnaires, tutors were asked about their experiences working at such a large university. Questions are divided into three categories: 1.) administrative support; 2.) professional development support; and 3.) colleague support. The questionnaire consisted of closed-ended and open-ended questions. In order to obtain a holistic picture of the situation the tutors find themselves in, this study was designed using quantitative data (by examining closed-ended questions), and qualitative data (by examining open-ended questions). The qualitative data was analysed by means of content analysis: tutor's responses are thematically categorised and discussed accordingly.

Analysis of Data and Discussion

Colleague support

In this section, tutors were asked several questions regarding the amount of contact that they have with fellow Reading and Writing tutors, and with their co-ordinator. This contact includes personal meetings, telephone calls, and email messages.

Most tutors have little face-to-face contact with fellow tutors (see Appendix A). On a monthly basis, three tutors see none of their fellow tutors, two tutors see one fellow tutor, one tutor sees two fellow tutors, and two tutors see three of their colleagues.

Tutors meet with their co-ordinator on a more regular basis (see Appendix A). The tutors here are divided into two groups: those who meet with the co-ordinator less than five times per year (n = 4 tutors), and those who meet with him more than 20 times per year (n = 4 tutors). No tutors indicated that they meet with the co-ordinator between six and 20 times per year; this finding may be explained by the difference in distance that tutors live from the Central Unit in Johannesburg, South Africa, where the co-ordinator works.

Most tutors seem to keep more telephone and email contact with each other and with their co-ordinator. All tutors have at least some telephone contact with fellow tutors and with their co-ordinator each month, while some tutors make a big effort to stay in telephone contact with colleagues – three tutors call their colleagues more than 10 times per month, and four tutors call their co-ordinator more than nine times per month (see Appendix B).

Tutors reported receiving at least six to 10 emails from fellow tutors each month, and most tutors indicated that they make the effort to email their colleagues at least as many times (only one tutor emails colleagues only 1 to 2 times per month). The same is true for emailing the co-ordinator (see Appendix C).

The quantitative data show that tutors have more contact with their co-ordinator than with fellow tutors. As revealed in the qualitative data, none comment on their contact with their co-ordinator (perhaps because they see their co-ordinator's support as sufficient), but all commented on the level of interaction with fellow tutors.

Six tutors commented that keeping contact with colleagues curbs feelings of isolation. One tutor stated that "collaborative instructional design and teaching and learning, the use of telephones and emails to bounce an idea to a colleague and the support through materials and ideas through discussions" curb isolation. Other comments include that "being friends with colleagues (both local and regional), having a sympathetic ear," "regular meetings," "more contact," and "taking responsibility for making contact" contribute to curbing isolation. This corresponds to Ribchester and Edwards' (1998) findings that collaboration has the advantage that staff members in similar situations can act as sounding boards for each other's problems.

Conversely, it is a lack of contact with colleagues that increases feelings of isolation for many tutors. Five tutors commented that factors such as "physical distance from each other and also less interaction with tutors," "not making your presence felt," "colleagues not communicating with you," a lack of time to "share reading centre experiences with colleagues," and irregular face-to-face meetings increase feelings of isolation.

When giving advice to fellow tutors who might feel isolated at their centres, eight tutors stressed how important contact with fellow tutors is. Most tutors feel that it should be the impetus of tutors to "initiate communication" and "network with other tutors." One tutor comments that "you could email them and make time to meet," while another says that one should "liase with other tutors and find out what they are doing." It seems safe to infer that those participants who suggest that tutors initiate more face-to-face contact with colleagues, more than likely live close to these colleagues. For many tutors, however, self-initiated face-to-face interaction tends to be difficult. The following suggestion might be more useful for such tutors: "get in touch via email or phone" (which, according to Wheeler is a cost effective way of collaborating); share frustrations or good ideas; don't be anxious that your ideas or material are not good enough – just put it out there for discussion." One tutor advised that "the co-ordinators should make available opportunities for team work." Schrum and Ohler (2005) also found that faculty had a need for administration to help them to collaborate and interact with other faculty members.

Administrative support

Tutors were asked questions regarding the amount of support they receive in terms of administration, marketing, and resources. On a scale from 1 to 5 (1 = not at all; 5 = very much), four tutors reported that they received under average support regarding general administration and logistical arrangements from their regional centres, and only two indicated that they received above average support for such administration. Five tutors reported that their regional offices provided them with under average support with marketing their centres, and only one felt they received above average support for marketing the Centre. Five tutors reported that they did not have all of the basic resources they needed to run an effective Reading and Writing Centre, and two indicated that they did have enough resources to accomplish their tasks (see Appendix D).

As one participant said, "Not having enough support from your regional office . . . feeling as though you run into brick walls with regards to booking venues, obtaining vital resources, etc.," can potentially enhance feelings of isolation significantly. One tutor noted that a lack of support from the regional office "makes you question your place in the *Unisa* setting as the importance of a Reading and Writing Centre is many times overlooked." Another tutor noted "frustration at poor organisational systems – e.g., not getting paid, not having any of the resources I requested . . . despite persistent phone calls, emails, etc."

One tutor noted that "too many administrative duties make it difficult to find time to do research." This implies tutors do not receive a lot of administrative support from their regional office. Whilst it is often expected of tutors to undertake research, the amount of administrative duties that they must handle makes it difficult for them to find time for research.

One participant noted that he puts in a lot of effort into marketing the centre, but that the response from students is disappointing. This results in great frustration, especially if there is no one to help with such an endeavour. Another tutor noted that a lack of positive response from students (in a distance education setting) result in lack of motivation and that this would probably be much less problematic at a residential university.

Problems associated with insufficient resources are cited by two tutors, which they say increases the sense of isolation they feel at their regional offices. In terms of motivation, one tutor reported that sometimes the lack of resources – i.e., not having "an Internet facility available at all times, or a printer" – are all factors that can negatively influence tutor motivation. Other resources that

are mentioned as lacking include learning materials, a computer, and computer programmes. Put simply, insufficient resources might compel some tutors to seek 'greener pastures.'

Professional support

In the professional support section, tutors were questioned on the amount of contact that they have with colleagues working at other universities and how much further training (either self-initiated or provided by their department) they participate in. They were also asked how they perceive their own experience and ability compared to that of fellow Reading and Writing tutors and colleagues from other universities.

Four of the nine tutors reported having fairly regular contact (both personal and professional) with colleagues working in the same field at other universities; whereas five reported seldom, if ever, having contact with their *Unisa* tutor colleagues (see Appendix E).

Five of the nine tutors reported their department fully supports their professional development; one reported that the department does not support professional development on any level. All tutors indicated that they do take some level of responsibility for their own professional development, with seven reporting taking above average responsibility for their own professional development (see Appendix F).

Several tutors noted that staying "stimulated and on top of things," staying challenged and always having "something new to do, learn or get involved in" keeps them motivated and feeling less isolated from their colleagues. This finding is supported by Lockwood and Latchem (2004), who found that training events strengthen group ties and encourage ongoing collaboration. Some tutors advised they are intrinsically motivated when it comes to doing research, and still want to undertake research in spite of administrative duties taking up much of their time. One tutor noted "there is not much documented on [Reading and Writing Centre] scholarship in South Africa and it is important to conduct research that will inform policy and feed into future research. It also helps to let people know what we are doing and to share experiences with colleagues in the field." This finding supports this study's quantitative research results, which indicates most tutors take a lot of responsibility for their own professional development.

A few tutors indicated the need for more formally arranged meetings and opportunities for team work between tutors, such as staff training sessions held "at least once a semester." Tutors also reported that liaising with colleagues at other institutions is important. Over half of the tutors indicated that their department supports them sufficiently on a professional level, but nonetheless some report there is still room for improvement.

In terms of 'experience' and 'ability,' four of the nine tutors in this study reported that they have more experience and/ or ability than their fellow Reading and Writing Centre tutors. None reported having less or much more experience and/or ability, while two indicated that they do not know how they compare with their fellow tutors (see Appendix G). When asked how they would compare their experience and ability to that of colleagues working at other universities, only two indicated that they are more experienced and able; three reported that they have the same, less, or much less experience; and three indicated that they do not know how their experience and ability compares to that of colleagues working at other universities. The fact that two tutors indicated that they do not know how their abilities and experience compare with that of their fellow tutors, suggests they might not have enough formal contact with each other.

As mentioned earlier, one factor that might influence tutors' motivation is 'casualisation.' One tutor indicated his frustration at working only part-time and would much prefer working at the Reading and Writing Centres on a full-time basis. Even so, tutors appointed on a full-time basis are not appointed permanently, but rather on fixed-term contract positions. Casualisation might be advantageous to universities on a short-term basis (mainly financial), but in the long term this practice could seriously erode staff morale and result in universities losing valuable, hard-to-replace experience.

Two tutors advised that attending conferences, reading papers, doing research, and publishing are all good methods to curb feelings of isolation. The quantitative research shows that one third of the tutors do not know how their experience and ability compare with that of colleagues working at other universities (see Appendix G). As such, following the above mentioned advice might help these tutors to feel more secure about their abilities.

Conclusions and Recommendations

Weeks (1994) asks: "How many have to sink before we realise that such losses in people cannot go on . . . ?" (p. 8). Wheeler (2004) concurs by stating that universities will only be able to survive and thrive, it they (amongst other things) aim for greater collaboration and invest more in people. From the review of the literature review and results from this study clearly supports these statements.

According to the data, collaboration is most significant in reducing feelings of isolation amongst tutors. Collaboration, however, goes hand-in-hand with professional development. "Once launched into orbit educational personnel still need the occasional 'booster rocket'" (Weeks, 1994, p. 33). Participants in this study certainly seem to agree that extra training is vital to remain 'fuelled' and motivated when working somewhere in 'orbit.' Weeks (1994) reminds us, however, that in-service training is only one form of professional support and that it is usually not enough, because staff members typically only go to one in-service course (or less) per year, and still remain feeling left outside of 'orbit' of the larger system.

Even modest gestures can go a long way to help tutors to feel like they are part of the system. Gestures such as replying to letters, returning phone calls, sending supplies on time, putting ourselves in their shoes and understanding their problems, being contactable and sympathetic, etc., that cost almost nothing except time (Weeks 1994).

Although not stressed as much in this study as in other studies (Schrum and Ohler, 2005) coordination of staff members remains a focal point in decreasing feelings of isolation. Like the Schrum and Ohler 2005 study, participants in this study also indicated a need for the Central Unit to foster teamwork between tutors and make available opportunities for professional development. The Central Unit should also help in administrative matters such as receiving resources on time and having, at minimum, basically equipped centres. In addition, the Central Unit should guide inexperienced tutors in matters such as programme planning, advertising, and course sequencing (Schrum and Ohler, 2005).

Even if all of the above are in place, a seemingly minor detail like job insecurity could compel tutors to look for jobs in a more stable and secure environment. If universities are to survive, they must invest in their most valuable assets – their staff (Wheeler 2004). The most effective way of achieving this is providing greater job security. If staff turnover is rapid, a university will likely have staff who feel unsure of themselves and their jobs, a dynamic which further isolates

themselves from each other. They will be eager to move to a more secure environment. Conversely, if there is a solid foundation (i.e., permanent staff), this would better support research, an important determinant of funding and the most important method of achieving credibility and legitimacy in the greater academy (Yick, Patrick and Costin, 2005). Taking the above into consideration, some suggestions are listed as tactics to help curb staff isolation:

Administrative staff

- Continue supporting tutors with administrative matters, even if the tutors are not new staff members. Such support should include help with general administration and marketing. Help with administrative matters will give tutors more time to do the research necessary to keep up the academic standards and reputation of their centres.

- Take a proactive role in ensuring that tutors have the basic resources they need to do their jobs effectively.

Academic support staff

- Arrange at least one (preferably two) in-service training sessions per year for tutors. This would serve to increase collaboration between staff members, increase motivation to conduct research, which will help reduce feelings of isolation.

- Reply to emails and phone calls promptly, send supplies in a timely manner, and be willing to help tutors solve problems that they cannot solve.

- Initiate contact with tutors regularly, to foster a culture of 'staying in touch' not only with academic support staff, but also with fellow tutors.

- Encourage tutors to contact academics at other institutions (i.e., list-serves, conferences, etc.), as this creates a culture of collegiality and collaboration, which in turn, decreases uncertainty about how one compares with colleagues at other institutions.

Fellow tutors

- Make a point of calling, emailing and, if possible, meet with tutors at other centres face-to-face, especially new tutors who do not yet have a support system of colleagues to rely on. Also, remember that your colleagues will not contact you if you do not contact them.

- Build friendships with colleagues – they are a safe audience with whom you can solicit feedback on ideas, writing, problems, etc.

- Find out about opportunities for professional development (e.g., short courses, workshops, seminars, etc.), and invite colleagues to join you. Also, share what you learned with your fellow tutors.

- Forward interesting articles and other material to colleagues – they might soon start doing the same, which could decrease the time you spend looking for articles and other material.

- Get involved and initiate new programmes in which you can collaborate – this is good for your own professional development (and your colleagues) and decreases feelings of isolation.

It is "people who get things done, so it is essential to know how to bring out the best in people, to understand their aspirations and expectations" (Weeks 1994, p. 9). By supporting staff members who often already work in difficult circumstances and in professional isolation from colleagues, universities can retain and strengthen the valuable resource of experienced and motivated staff members. An initial investment of time and money in existing staff members, could potentially save universities much more in terms of time and money needed to recruit and retrain new staff members.

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Appendix A

		Frequency	Valid Percent
Valid	0 tutors	3	37.5
	1 tutor	2	25.0
	2 tutors	1	12.5
	3 tutors	2	25.0
	Total	8	100.0
Missing	Missing	1	
Total		9	

Table 1: How many of your fellow tutors do you meet on a monthly basis?

		Frequency	Valid Percent
Valid	1-2 times	3	37.5
	3-5 times	1	12.5
	20-40 times	2	25.0
	> 40 times	2	25.0
	Total	8	100.0
Missing	System	1	
Total		9	

Table 2: How many times per year do you meet with your co-ordinator?

Appendix B

		Frequency	Valid Percent
Valid	1-2 times	2	22.2
	3-5 times	1	11.1
	6-10 times	2	22.2
	10-20 times	3	33.3
	> 20 times	1	11.1
	Total	9	100.0

Table 3: How many times per month do your colleagues call you telephonically?

		Frequency	Valid Percent
Valid	1-2 times	3	33.3
	3-5 times	1	11.1
	6-10 times	2	22.2
	10-20 times	2	22.2
	> 20 times	1	11.1
	Total	9	100.0

Table 4: How many times per month do you call your colleagues telephonically?

		Frequency	Valid Percent
Valid	3-5 times	5	55.6
	9-11 times	1	11.1
	> 11 times	3	33.3
	Total	9	100.0

Table 5: How many times per month does your co-ordinator call you telephonically?

		Frequency	Valid Percent
Valid	1-2 times	2	22.2
	3-5 times	2	22.2
	6-8 times	1	11.1
	9-11 times	2	22.2
	> 11 times	2	22.2
	Total	9	100.0

Table 6: How many times per month do you call your co-ordinator telephonically?

Appendix C

		Frequency	Valid Percent
Valid	6-10 times	3	33.3
	10-20 times	3	33.3
	> 20 times	3	33.3
	Total	9	100.0

Table 7: How many times per month do your colleagues e-mail you?

		Frequency	Valid Percent
Valid	1-2 times	1	11.1
	6-10 times	4	44.4
	10-20 times	3	33.3
	> 20 times	1	11.1
	Total	9	100.0

Table 8: How many times per month do you e-mail your colleagues?

		Frequency	Valid Percent
Valid	6-10 times	2	22.2
	20-40 times	4	44.4
	> 40 times	3	33.3
	Total	9	100.0

Table 9: How many times per month does your co-ordinator e-mail you?

		Frequency	Valid Percent
Valid	1-5 times	1	11.1
	6-10 times	2	22.2
	11-20 times	2	22.2
	20-40 times	2	22.2
	> 40 times	2	22.2
	Total	9	100.0

Table 10: How many times per month do you e-mail your co-ordinator?

Appendix D

		Frequency	Valid Percent
Valid	Not at all	1	11.1
	A bit	3	33.3
	Medium	3	33.3
	Yes	1	11.1
	Very much	1	11.1
	Total	9	100.0

Table 11: How much does your regional centre help you with general administration and logistical arrangements?

		Frequency	Valid Percent
Valid	Not at all	3	33.3
	A bit	2	22.2
	Medium	3	33.3
	Very much	1	11.1
	Total	9	100.0

Table 12: How much does your regional centre help you with marketing your centre?

		Frequency	Valid Percent
Valid	Not at all	4	44.4
	A bit	1	11.1
	Medium	2	22.2
	Yes	2	22.2
	Total	9	100.0

Table 13: Do you have all of the basic resources you need to run an effective Reading and Writing Centre?

Appendix E

		Frequency	Valid Percent
Valid	Never	3	33.3
	A few times a year	2	22.2
	On a monthly basis	3	33.3
	On a weekly basis	1	11.1
	Total	9	100.0

Table 14: How much personal contact (by means of phone calls, meetings, discussions, personal e-mails) do you have with colleagues working in the same field, but at other universities?

		Frequency	Valid Percent
Valid	Never	3	33.3
	A few times a year	2	22.2
	On a monthly basis	2	22.2
	On a weekly basis	2	22.2
	Total	9	100.0

Table 15: How much contact (other than personal, e.g. by means of newsletter, mailing groups etc.) do you have with colleagues working in the same field, but at other universities?

Appendix F

		Frequency	Valid Percent
Valid	(1) = Not at all	1	11.1
	(2)	0	00.0
	(3)	2	22.2
	(4)	1	11.1
	(5) = Very much	5	55.6
	Total	9	100.0

Table 16: To what extent does your department support your professional development (e.g. by means of training, help with further studies, forwarding articles about your field, etc.)

		Frequency	Valid Percent
Valid	(1) = Not at all	0	0.00
	(2)	1	11.1
	(3)	1	11.1
	(4)	3	33.3
	(5) = Very much	4	44.4
	Total	9	100.0

Table 17: To what extent do you take responsibility for your own professional development (e.g. by means of training not organised by your department, finding articles about your field, further studies etc.)?

Appendix G

		Frequency	Valid Percent
Valid	Much less	0	00.0
	Less	1	11.1
	The same	2	22.2
	More	4	44.4
	Much more	0	0.00
	I don't know	2	22.2
	Total	9	100.0

Table 18: How would you describe your experience and ability, in terms of Reading and Writing instruction, as compared to your fellow Reading and Writing tutors?

		Frequency	Valid Percent
Valid	Much less	1	11.1
	Less	1	11.1
	The same	2	22.2
	More	2	22.2
	Much more	0	0.00
	I don't know	3	33.3
	Total	9	100.0

Table 19: How would you describe your experience and ability, in terms of Reading and Writing instruction, as compared to colleagues at other universities?

International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September – 2006

Adaptation for a Changing Environment: Developing learning and teaching with information and communication technologies

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Abstract

This article examines the relationship between the use of information and communication technologies (ICT) and learning and teaching, particularly in distance education contexts. We argue that environmental changes (societal, educational, and technological) make it necessary to adapt systems and practices that are no longer appropriate. The need to adapt, however, can be perceived as being technology-led and primarily concerned with requiring academic staff to develop their skills in using ICT. We provide a critique of continuing professional development (CPD) for using ICT in teaching and learning that does not entail examining the impact of environmental changes upon the assumptions, goals, and strategies which underlie and shape an organisation's educational practices. In particular, we oppose CPD that concentrates on the individual teacher and their use of ICT. Instead, we contend that professional development should focus upon the scholarship of teaching and learning, and must also reflect the wider organisational context within which ICT is managed and used.

Keywords: Organisational learning; conceptions of teaching and learning; information and communication technologies; pedagogical integration; professional development.

Introduction

This paper examines the complex and frequently misunderstood relationship between the use of information and communication technologies (ICT) and learning and teaching in distance education (DE), particularly at the post-school level. Media and technologies have become essential to the practice of distance education in the 21st century, and are perceived by some as its defining feature (Phipps and Merisotis, 1999). This view might have some validity for the model of distance education that has developed from the North American 'extended classroom.' That type of DE relies upon teacher-led classroom-based activities that are additionally made available to dispersed individuals or groups of learners using videoconferences, streaming media, or other Internet delivered 'virtual classes.' We focus our discussion on the model derived and developed from 'correspondence education,' in which teachers and learners are separated by time as well as by location. This form is practiced by the large-scale, dedicated DE institutions (Daniel, 1996) as well as by many dual-mode universities. In these institutions there is emphasis on achieving economies of scale by the development of materials and resources that asynchronously carry the primary responsibility for teaching students and/ or guiding their learning.

We argue that basically ICT offers just tools; the means by which important educational outcomes can be achieved. The significance of those tools can be considerable, in that they can enable learners to engage in forms of education that were previously impossible at a distance. However, the adaptation that is necessary in western Higher Education in general (including the expanding DE sector) arises in response to a range of factors that is broader and more far-reaching than simply developments in technologies for learning and teaching.

Elsewhere (Kirkwood and Price, 2005) we have argued that technology-led innovations do not in themselves lead to improved educational practices. Too often, it seems, technologies have been introduced to university teaching with little or no consideration being given to the implications for student learning. For example, adding computer-mediated communication to a course will not in itself generate collaborative or co-operative working; neither will it induce dispersed students to form themselves into a learning community. Sept (2004) reflects on how archaeology is taught in the 'information age' in a university in the USA. She comments that although teachers illustrated good use of narrative in their teaching, with a range of media and ICT as support tools, the clear weakness of the culture change was that students were encouraged to memorise the story but gain little understanding of how it was constructed (p. 48). She identifies two problems. First, while students have access to large real data sets and visual raw materials as examples, they have little opportunity to do more than memorise features. Second, students rarely learn to compare or generalise from individual studies to build an integrated understanding of the past. Others too have noted similar problems (Laurillard, 2002; Bostock, 1997). Sept (2004) further comments:

> *It is ironic that in the so-called Information Age we are still graduating passive, solitary learners poorly equipped to cope with the explosion of information resources competing for their attention* (p. 49).

While ICT can enable new forms of teaching and learning to take place, they cannot ensure that effective and appropriate learning outcomes are achieved. It is not technologies, but educational purposes that must provide the lead. This view is not new: the interesting question is why this oft-repeated message, based upon research evidence from many contexts, has failed to have a significant impact in reforming policies and practices.

Theoretical Framework for Interpreting the Problem

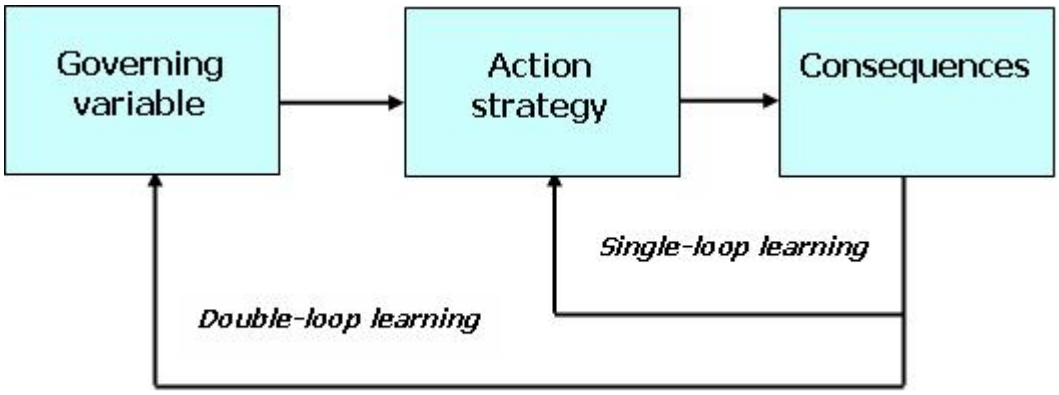
Schön (1983) argues that part of the reason that 'reforms' rarely reform derives from the notion that knowledge is molecular: it can be built up from units of information that can be assembled together to form more complicated and advanced knowledge. This leads to a view that it is the business of teachers to communicate this knowledge and the business of students to receive or absorb this knowledge. This is not an outdated view. Prosser, Trigwell, and Taylor (1994) found that university teachers hold a variety of conceptions of learning, and that some of the less sophisticated views encapsulate a transmissive conception of their teaching role. When ICT is adopted by teachers who hold such views of learning, their ICT practices are likely to reflect transmissive approaches that do little to reform or enhance students' experiences of learning, as noted by Sept (2004) in the earlier section.

This issue is further confounded by dissonance between beliefs and practices. Norton and colleagues (Norton, Richardson, Hartley, Newstead, and Mayes, 2005) investigated the variation between academics' beliefs and practices across four higher education institutions in the UK. They found that while academics' conceptions of teaching were orientated towards supporting student learning and problem solving, their actual teaching intentions were oriented towards a knowledge transmission style. This could be interpreted as the difference between what Argyris

and Schön (1974) called *espoused theory* and *theory in use*, where the *espoused theory* is evidenced through the language we use to describe to others what we think we do, while the *theory in use* is that which is implicit in what we actually do as practitioners and managers. For any individual these might or might not be compatible, although that person may not be aware of any incompatibility. Despite speaking the 'right' language, practitioners and managers might not be following through with practice that is matched.

There is a further problem: that of the reliance of academics upon opinion-based practice (Boyle, 2004). If, as practitioners and managers, we 'think' we are carrying through on our beliefs and conceptions of how to adapt to changing educational environments, but we have no evidence, then this can create a barrier to moving forward with new ideas and, more specifically, with effective use of new technology. Instead, we need to move towards an evidence-based practice in which we actively examine our assumptions, seek evidence as to their effectiveness, and are prepared to change when the evidence indicates this need. Our reflection upon practice, however, needs to go beyond what Argyris and Schön (1978) term single-loop learning. In their model of organisational learning (see Figure 1) they argue that single-loop learning tends to concentrate on using techniques to make strategies more efficient, while factors that underpin those techniques are taken for granted and remain unchallenged.

Figure 1. Single-loop and double-loop organisational learning (based upon Argyris and Schön, 1978).



When one strategy is not effective, another one is employed. In contrast, double-loop learning involves questioning the underlying goals, strategies, and assumptions to identify the governing variable(s). This entails detection and correction in ways that necessitate the modification of an organisation's underlying policies and practices. This could explain why the research on effective ICT use is not embedded in mainstream university innovations. Although this problem applies to higher education generally, we will concentrate on how this influences DE and its use of technologies in teaching and learning. This paper examines some of the factors that influence existing policies and practice. It uses the model developed by Argyris and Schön (1978) to interpret the problems and to indicate how professional development activities might address some of these issues.

Factor 1: The influence of historical models

As one of the earliest providers of multiple media distance education, the UK Open University (UKOU) has had considerable influence on the field. Many aspects of its educational model,

devised in the 1960s and 1970s, have been adopted by other DE providers around the world (Keegan, 1996). Features of the UKOU model were fashioned by the particular social context and technological infrastructure existing in the UK at the time. These shaped the academic practices of the UKOU and have influenced those who have adopted similar models elsewhere. The underpinning assumptions of the model have determined the use of technologies for teaching and learning. Yet the social context and infrastructure varies from institution to institution and changes over time. The major issue that this prompts is the appropriateness of the model for the current context – i.e. the student population and outcomes of learning that it intends to serve. More importantly for the discussion here is how well this model supports the effective integration of ICT.

For example, economies of scale are achieved in large-scale DE universities by adopting an 'Industrial Model' of distance education (Peters, 1983). This separates the preparation of materials and resources for teaching and learning, from the interaction of students with those materials and with their tutor. It also gives preference to the one-way flow of information and ideas – from experts/ teachers to learners – with only limited opportunities for dialogue to take place. In this model the attention of distance educators is focused on the construction of materials rather than on the processes of learning (see early critiques by Harris and Holmes 1976; Northedge, 1976).

One imperative of early DE initiatives was to demonstrate the quality of the educational approach to potential students, employers, and a largely sceptical academic community (Perry, 1976). Planned quality assurance procedures were adopted, involving instructional design methodologies and extensive peer review during the development of courses (inputs), rather than simply quality control of outcomes through student examination. In many cases, this has led to the development of high quality materials that are content rich, but require only a relatively passive involvement of learners.

A further imperative was to develop courses suitable for part-time adult learners, mainly in employment and studying from home. Hence, course materials needed to be self-contained and designed for learning undertaken by individuals who had limited access to library and/ or laboratory facilities. Although a range of technologies, such as books, television/ video and radio/ audio, were used to enhance motivation and to address a range of learning outcomes, they were essentially one-way and transmissive in nature.

The main issue raised by legacy models of DE is whether the largely transmissive (and for students, solitary and passive) nature of this form of education remains appropriate in increasingly networked societies. For example, what role is there for communication technologies that are currently prevalent in the wider social context? If the underlying model of education is one that supports the transmission of knowledge and assesses the acquisition of knowledge by individuals, where is the place for technologies that can support social conceptions of learning and assessment?

It is important for all DE institutions to reflect on their educational models and determine whether they are appropriate for their current circumstances. In order to adopt a double loop approach in relation to the educational use of ICT, there is a need to determine which underlying assumptions are still applicable and which need to be adapted. This should result in a principled approach to developing appropriate policies and practices.

Factor 2: The changing environment for higher education

Higher education exists within an environment marked by considerable transformations, not only in the education sector but also in wider society. These include the changing characteristics and circumstances of students; new demands in terms of the knowledge, skills, and competencies expected of those gaining certification from courses; greater diversity in relationships between learners and the providers or sources of learning opportunities; and expanding participation in the 'networked society' with its increased opportunities for interpersonal communication and access to digital resources.

Higher education is increasingly being required to support a diverse student body. Calvert (2005) has identified some consequential changes that have occurred in the distance education environment over the last 25 years. These include:

- More distance education players, with the greater involvement of 'conventional' universities and commercial enterprises;
- Institutions are seeking transnational markets for students;
- Collaboration on courses between institutions in different countries.

She also indicates that there is more emphasis on professional and postgraduate courses, particularly for updating and enhancing the knowledge and skills necessary for practitioners in many areas of work.

The changes in the diverse requirements of the student body are accompanied by societal changes. ICT has become part of everyday life for a large proportion of people in the developed and developing world. Socially, people are using the Internet for entertainment, leisure activities, shopping, and information sharing (i.e., the Pew Internet and American Life Project http://www.pewinternet.org/
and the UK National Statistics http://www.statistics.gov.uk/cci/nugget.asp?id=8).

Working life for most people in western societies also reflects this growth in ICT use. Businesses and organisations are increasingly using ICT to support their working practices, and to facilitate communication between colleagues and with clients. Many young people entering higher education have grown up with ICT and are hardly aware of the pre-Internet era; they exhibit an 'information-age mindset' (Frand, 2000). Jones (2002) has suggested that some colleges and universities in the USA might be experiencing "an Internet generation gap between professors and students in terms of their Internet usage, interests or abilities" (p. 9). As a consequence, teachers in the western world are no longer the main gatekeepers for information in their area of expertise and this phenomenon, in turn, is challenging the nature of a university academic's role in relation to supporting the student body.

Educational institutions, and those who work in them, need to be constantly reflecting on and investigating the diverse nature of student requirements and their circumstances in order to fully understand the changing higher education environment. However, mainstreaming ICT simply because it reflects societal changes and, perhaps, because it might address the needs of a diverse student body is a flawed strategy: It exemplifies what Argyris and Schön (1978) term single loop organisational learning. In order to determine the governing variable in this situation, institutions need to use an evidence-based approach to assessing the appropriateness and adequacy of their existing models, pedagogic strategies, and policies. This can enable institutions to employ ICT-supported pedagogies that strategically reflect and facilitate high-level educational models and policies required.

Factor 3: Current policies and practices for ICT adoption in higher education

E-learning policies and strategies for both distance and campus-based education have tended to be technology-driven, concentrating on developing the technological infrastructure at the expense of the underlying pedagogy. A recent survey of ICT implementation in US universities (Zemsky and Massy, 2004) indicates that although course management systems (such as *Blackboard* and *WebCT*) have been widely adopted, significant changes in teaching and learning were uncommon as ICT was used mainly to supplement existing practices. Similar findings were reported by Collis and van der Wende (2002) from an international survey. They concluded that much scope remained in terms of exploiting ICT to improve teaching and learning, and for serving learners in different target groups.

In the UK, a recent survey of Managed Learning Environment (MLE) use in Further and Higher Education institutions concluded that "'Enhancing the quality of teaching and learning' is the key driver, identified by almost every institution, for MLE development", but that "pedagogical issues …. appear to have been of secondary concern until now" (JISC/UCISA, 2003, p. 7). Similarly, formative evaluation of the development programme for the Distributed National Electronic Resource (DNER) revealed that most of the projects lacked a pedagogic rationale and that few project proposals made explicit reference to enhancing student learning (Zenios, Goodyear, and Jones, 2004). For a majority of the projects "there is an assumption that the use of networked technologies will lead to definite educational outcomes and possibly change practice in higher education simply by making resources available to students" (p. 211). The recent e-learning strategy document from the Higher Education Funding Council for England (HEFCE, 2005) supports the view that institutional approaches should focus more on student learning; a welcome shift in emphasis away from the previously dominant technological drivers.

When considering how ICT can be used to support higher education, some teachers think primarily about content or materials. They see ICT in terms of its capacity to store and deliver teaching materials, or its potential role in finding and retrieving dispersed resources. Others think of ICT primarily in terms of the communication that it can facilitate and the dialogue that can be enabled – either synchronously or asynchronously. These two positions can be related to general conceptions of teaching in which the teaching process is seen as being concerned principally either with 'the transmission of knowledge' (teacher-centred) or with 'the facilitation of learning' (learner-centred) (Kember and Kwan, 2000). So how a teacher employs technology relates to what they conceive their teaching role to be.

In dedicated DE universities there has been a drive to get students online to support teaching, learning, and administration. The Internet provides various means to remedy the lack of interpersonal communications that has been "the Achilles heel of distance education" (Guri-Rosenblit, 2005, p. 475). However, while interpersonal communications can add important new dimensions to the educational experience of distance learners studying independently, there are fundamental problems that the underlying model raises. When courses have been developed for presentation to several cohorts of distance learners over a period of time, it is particularly difficult to introduce radical changes to the model of teaching and learning. Tools and resources can be added to an existing course, but their use by learners is likely to be limited unless they accord with the teaching and learning practices originally conceived for the course.

Many current policies and practices still seem to be technology driven – despite the fact that research and evaluation studies have shown this to be an ill conceived strategy. It appears as though strategies have been employed to use ICT without reflection on the evidence of the

problems that are being addressed. Again this can be understood in terms of the model developed by Argyris and Schön (1978), where the governing variable has not been understood and strategies have been employed merely as a mechanism to change the circumstances without a clear understanding of what circumstances need to be changed and why.

Factor 4: Determinants for learners' use of ICT?

We have found that the pedagogic model employed and the associated assessment strategies are the primary determinants of what distance learners do in their studies and how they go about it (Kirkwood and Price, 2005). New e-learning opportunities are underutilised and ineffective when they have been appended to courses that are rooted in pedagogic models and practices with which they are not aligned. We have found support for this in reports of studies undertaken at various DE institutions. For example, Erlich, Erlich-Philip, and Gal-Ezer (2005) report that Web resources and communications facilities are little used when added to existing courses. Others have found that just making two-way communication available, such as email or computer-mediated conferencing (CMC), is unlikely to be sufficient to achieve worthwhile teaching and learning outcomes, especially when it is simply added to an existing course intended for individual study (Fung, 2004; Kear, 2004). If the nature of the course tends to adopt a didactic approach to teaching, where all the materials are supplied and where the assessment policy employs a positivist approach assuming definitive answers, then what pedagogical role would CMC or email have? In a model such as this there is little room for exploiting the pedagogic potential of communications media.

Conversely, when ICT is pedagogically integrated into the course design and adapted for the current environment, it can enable and support enhanced forms of learning (Kirkwood, 2006). For example, if students are required to work in small groups on a collaborative task, where the Internet is used to find information resources, and conferencing or email is used as a means to communicate and construct a joint project which is assessed, then the use of ICT has a clear pedagogic role. These kinds of instantiations, however, are less common than the more superficial uses of ICT that tend to be bolted on to existing course designs.

Teaching and learning in higher education is unlikely to be improved simply by the application of a new technology. As Bates (1995) points out: "Good teaching may overcome a poor choice in the use of technology, but technology will never save poor teaching; usually it makes it worse" (p. 8). We suggest, however, that learning can be enhanced when innovations take into account not only the characteristics of the technology, but also the pedagogic design, the context within which learning takes place, student characteristics and their prior experience, and learners' familiarity with the technologies involved (Kirkwood and Price, 2005). Consequently, students are likely to have a poor educational experience when the focus of the design has been technological as opposed to pedagogical. Hence, it is important to evaluate ICT use and the pedagogical context in which it is used to understand how to effectively use it in future designs.

Factor 5: Students' expectations of teaching and learning

A further issue arises from students' expectations and conceptions of teaching and learning in higher education. Most learners have only ever experienced full-time schooling when they first enter higher education. Hardly any will have experience of self-managed or self-directed learning, so they might discover a dissonance between their expectations and those of the teaching staff. Kember (2001) found that novice students frequently held a set of beliefs about teaching and learning that could be labelled didactic/ reproductive. The research discovered that:

> *. . . students who commence higher education with didactic/ reproductive beliefs can find the process difficult and even traumatic. They are uncomfortable with teaching approaches that do not correspond with their model of teachers presenting information to be passively absorbed by students* (p. 217).

The issue here is that students may fail to understand the underlying purpose of some educational activities designed by staff, particularly in relation to ICT use. Hence, an important task for staff is to engender in students an appropriate conception of teaching and learning which provides an educational rationale for learning activities, particularly those that involve the use of technologies.

So, we argue that not only do DE models and systems favour a didactic, materials-centred approach, but also that many students expect to be taught in a transmissive way. Distance educators have a vital role to play in enabling learners to challenge their existing conceptions and to develop more appropriate practices for effective learning. Understanding these difficulties is far more fundamental to the success of a student than the use of ICT per se.

Factor 6: The adequacy of professional development for teaching and learning with ICT?

One of the main problems with current professional development practices in relation to ICT is the concentration of effort on the technological aspects. As a result, professional development for academic staff has largely focused on developing teachers' technical skills (Ho, Watkins, and Kelly, 2002). Consequently ICT has tended to be used tactically, mainly to supplement existing teaching practices rather than having any transformative effect in response to the changing environment. Garrison and Anderson (2000) refer to these as 'weaker' and 'stronger' technological influences respectively. Without opportunities for reflection upon existing practices and why they might require adaptation, a poor understanding of how and why students might use ICT effectively in learning can result.

Although some examples of good practice have been identified (Epper and Bates, 2001), many CPD programmes in relation to ICT appear devoid of underlying considerations regarding the nature of teaching. Williams (2003) conducted a Delphi study of DE practitioners to determine roles and competencies for distance education programmes in higher education that could be used to inform the design of CPD activities. Of the 30 general competencies agreed and ranked by the panel of expert participants, only eight were categorised as being concerned with 'learning and instruction.' Most of those addressed specific skills and techniques: few were directly related to understanding the nature of learning and teaching, and there was no mention of how such issues impact on the effective use of technologies.

Harvey and Knight (1996) argue that professional development should be understood as the scholarship of teaching. This requires teachers to reflect on their own teaching beliefs and practices. Higher education teachers hold a variety of conceptions of teaching and these in turn influence their approach (Prosser, Trigwell, and Taylor, 1994; Trigwell and Prosser, 1996). ICT can support varying conceptions of teaching, the problem is that less sophisticated conceptions and approaches to teaching become more visible in a technologically rich learning environment. Often it is not the technology that is failing, but the actual teaching and pedagogical approach (Laurillard, 2002).

The problem is further compounded by suspicions about the goals of professional development and its focus on the individual. Teachers often regard it as a managerialist tool to re-educate the workforce in order to meet management targets. Engaging teachers in reflecting upon their practices is an activity that is recognised as being difficult. It requires time and effort on the part of the institution to embed and support such an approach while also dealing with some hostility from staff who may find an introspection of their entrenched and often traditional views of teaching beliefs deeply uncomfortable.

We have already drawn attention to the lack of congruence between teachers' beliefs and practices (Norton, et al, 2005). Differences in teaching intentions across different institutions seem to result from contextual factors that may require an individual teacher's practices to conform to the dominant teaching culture. The framework for improving student learning developed by Price and Richardson (2004) argues that the institutional and professional context impacts upon approaches to teaching. Prosser, Ramsden, Trigwell, and Martin (2003) similarly argue that context is related to both to students' and teachers' conceptions, which in turn relate to their approaches to learning and teaching, respectively.

A second main problem with current professional development practices is that they often target individual teachers or support staff. In DE institutions, courses tend to be produced by a group of people, not all of whom will be academics. Yet, to date, there has been no research into the teaching conceptions of individuals within a course team environment and how the interaction of varying conceptions of teaching impacts on the overall pedagogical design and philosophy of the course. Subsequently institutions may adopt the 'safe and easy' option and try to change the content and how it is delivered, rather than considering more fundamental issues such as teachers' conceptions and approaches to teaching, how this impacts on group course production, and how the course pedagogy can be transformed using ICT. This leads to CPD activities that are aimed at preparing individual teachers to make more effective use of ICT and that focus largely on pedagogical tactics.

Hence, CPD activities need to go beyond the individual teacher and address departmental, faculty, and institutional views of teaching and their rationales for incorporating ICT into course programmes. Too often it seems that institutional strategies create barriers that impede innovations to enhance student learning (Hockings, 2005). Managers too need to engage in relevant CPD activities in order to understand the implications of particular ICT use in course designs and to engage in developing policies that consider the wider organisational context. This approach supports the notion of double-loop organisational learning (Argyris and Schön, 1978), where the goal is to engage in understanding the underlying governing variable of any set of circumstances before developing strategies to address them.

Discussion

The model proposed by Argyris and Schön (1978) offers some explanation as to why the oft-repeated message, that ICT use needs to be pedagogically driven to be effective, is failing to have an impact. It appears that in many cases strategies have been employed to change a set of circumstances rather than fully investigate the governing variable and then developing appropriate strategies. Without an evidence-based approach we cannot be certain that our strategies, policies, and practices in education are focused on the issues that need to be addressed.

Professional development has often been seen as the method of addressing the 'perceived' failures of an institution. This too appears to be an inadequate strategy. The ability of an institution to adapt to a changing environment and effectively developing teaching and learning

with ICT, has to go beyond the remit of assuming that professional development activities alone will solve the problem. As we have articulated in this paper there are many pressing factors that DE institutions face in today's educational climate, such as changes in the social context, outdated models of DE, the changing HE environment, the appropriateness of current policies and practice and, last but not least, students' expectations of education. While EPD activities can address some of these issues, they cannot effect change in a vacuum. Institutions need to review and investigate the factors facing them, and use the evidence to develop appropriate policies and practices to address them in a holistic manner.

Professional development policies and practices might also need to be transformed. In some instances professional development is perceived as a remedial activity designed to align teaching staff to new working practices imposed from above, or to 'correct' errant academics. This needs to be addressed in two ways. First, professional development activities need to go beyond the individual and adopt a holistic approach to development that includes departmental, faculty, and senior university managers. In addition to teachers and support staff, managers need to be included in a range of professional development activities relating to teaching and learning with ICT in order that they understand the implications of their policies and practices. This should help engender an evidence-based and genuinely developmental approach to policy development practices in order to adapt appropriately to the changing HE environment.

Second, the focus needs to be on underlying pedagogical theories and practices and their effects in particular educational contexts. This involves examining the fundamental assumptions and goals to enable appropriate strategies to evolve and in order to avoid the 'tips and tactics' approach that tends to promote superficial professional development activities manifest in technically oriented training.

Conclusion

All educational institutions need to adapt in order to survive and that is particularly true for DE, which serves a diverse student population with a broad array of needs and circumstances. Educational provision is changing significantly and distance educators have a leading role to play in developing flexible programmes for prospective students coming from a variety of backgrounds, contexts, and geographical locations. To fulfill this remit successfully, we must understand how to harness technology in ways that provide an effective educational experience for the students we hope to serve. The underpinning argument of this paper has been that technology must provide the tools rather than the drivers for achieving core educational outcomes. If technologies are to be used purposefully to enhance student learning they need to be integrated not just in terms of pedagogical tactics, but must also reflect and align with the fundamental educational philosophy and aims. DE operates within a changing environment which impacts on an institution's aspirations and operations in many and varied ways, so it is necessary to regularly review and reassess the assumptions and models that underlie educational policies and practices. Successful adaptation and change involving the use of ICT necessitates more than simply replicating or supplementing existing teaching practices: everything governing those practices must be reconsidered and reflected upon. This requires a holistic view of the institution's policies, practices, and professional development activities.

Course development and presentation is rarely confined to an individual or small group of staff and decision-making can be complex and have unexpected repercussions. The model for using ICT in future DE programmes must encompass and develop policies that recognise both the educational rationale for, and the implications of, ICT use. To support such transformations, professional development programmes need to go beyond 'tips and tactics' for the individual and

encompass a more theoretically driven understanding of the educational rationale and consequences for ICT use with a wide range of staff and senior managers.

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International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September – 2006

Distance Learning Program of Teachers' at Kigali Institute of Education: An expository study

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Abstract

In 2001, a program of distance learning was started within Kigali Institute of Education in collaboration with the Rwanda's Ministry of Education. It is an in-service training program that aims to upgrade in-service secondary school teachers and alleviate the shortage of teachers both in terms of quality and number. This program runs parallel to a pre-service program, also conducted within the Kigali Institute. Academic staff members working in the pre-service program are involved in this distance learning program. After three years, a descriptive qualitative case study was conducted to determine the experiences of academic staff involved in the distance learning program. Purposive and theoretical sampling was used for participants' identification and inclusion. Individual unstructured interview and focus group discussion was used to gather the data. A qualitative software analysis called NVivo 2, developed by Qualitative Solutions and Research (QSR) International in 2002, was used to compile and analyse the data. Results of the study revealed that faculty members involved in both in-service and pre-service programs face challenges associated with heavy workload. Moreover, the pre-service program is typically prioritized at the expense of the distance learning in-service program. Academic relationships between faculty members and tutors also need to be reinforced. Serving as the critical link between the distance learning in-service program and pre-service departments and faculties, this research also shows that course coordinators play a pivotal role in the smooth operation of the distance learning program.

Keywords: distance learning; distance learning program; academic staff of distance learning

Background

After the 1994 genocide in Rwanda, the country faced critical shortages of human resources both in terms of quality and quantity. The education system was particularly affected by the genocide, a situation which led to the establishment of higher learning institutions by the Government of Rwanda. Sufficient numbers of qualified teachers are the cornerstone of the Millennium Development Goals to which the Government of Rwanda is committed. It is within this political context that Kigali Institute of Education was formed.

Kigali Institute of Education was established in January 1999 by the Government of Rwanda to help address the shortage of qualified teaching staff at the secondary level and the shortage of managerial staff needed to run technical and vocational training institutions. Up to 65 percent of secondary teachers in Rwanda were found to be under-qualified in 1999 (Rwanda Ministry of Education, 1999). The mission of the Institute is to undertake training in research, curriculum development, and innovation and improvement of instructional methods. The Kigali Institute of

Education – which comprises three faculties: Faculty of Science, Faculty of Arts and Social Sciences, and Faculty of Education – aims to be the centre of excellence in educational training and staff development in Rwanda.

Although Kigali Institute of Education started by offering an on-campus program, in order to fulfill its mission of providing Rwanda with qualified teachers, the Institute determined it needed to establish a distance learning (DL) program as a compliment to its existing on-campus learning and teaching model. Distance learning became an alternative for two reasons. First, because there are many under qualified in-service teachers working on the ground, and second, there are no qualified teachers to replace them should they leave for training and upgrading. Distance education, therefore, was chosen as a viable mode of training delivery for this targeted group of educators.

In 2000, the Kigali Institute launched its distance training mode for teachers; it currently serves 500 individuals currently teaching in registered secondary schools in Rwanda. Ten study centers were opened as outlets for this program. After successful completion of the three year program, fully trained teachers will be awarded a Diploma in Education. This diploma will enable them to further their study should they wish to earn a Bachelor of Education.

Distance education is truly an innovation in the Rwandan education system. Because distance education is viewed as a viable innovation, one of the objectives of the Rwandan Government has been to develop the required human resources to run the DL system as soon as possible. Implementing DL programs within such a compressed timeframe, however, does pose considerable challenges.

This study sheds light and insight into the ongoing challenges associated in implementing these DL programs. Results from this study aim to provide informed research upon which to make decisions to improve the overall success of the DL program. The scope of this study is to assess, evaluate, and analyse the process of implementation of DL mode of learning as it relates to in-service teachers, with particular focus paid to the involvement of the academic staff towards its realisation.

Although numerous reasons have been advanced for the adoption of DL within the traditional mode, progress to date has been limited because few educators have to yet gain sufficient understanding of DL to create a viable implementation plan for developing distance education methods (Garrison, 2000). The challenge here, therefore, is not to decide why tertiary education institutions should have distance education, but instead to decide how to design and implement such a program. Specifically, we must gain understanding in 'how to plan' and 'implement a successful program' (Levy, 2003).

Some studies have exposed various challenges that face the implementation of distance education programs, especially with regards to the academic staff involved (Clarke, Butler, Schmidt-Hassen and Somerville 2004; Williams, 2003). A Delphi study by Rockwell, Furgason and Marx (2000) focused on the planning that occurs as distance education develops, structuring decisions required for distance education, the implementation process, and evaluation needs in documenting outcomes. The study aimed at identifying research and evaluation priorities for distance education. The study reported the main concerns of the most experienced educators involved in the distance education, who were the members of the Delphi panel. Faculty time, competencies, and incentives to develop and teach at distance were also cited as major challenges (among others) in the implementation of distance education. As far as faculty were concerned, however, there was a disconnect between the time needed to prepare and deliver distance education courses and the time needed for research (Rockwell, Furgason and Marx, 1999). Williams (2003) identified barriers to distance education both inside and outside the higher education community.

According to Williams, inside the academy, distance education programs encounter numerous obstacles and challenges such as the academy's acceptance of distance education as an appropriate teaching method, stiff competition for limited financial resources, and the ability to withstand slow governance procedures. Moreover, as Anderson and Middleton (2002) report, faculty members typically do not want to change their style of instruction and feel that interactive lectures, small group activities, or closed laboratories are the only way that a subject can be taught.

Methodology

The study is a qualitative descriptive case study. The case study methodology as described by Yin (2003) guided the design of this study. Purposive and theoretical sampling was used to identify and include academic staff involved in the DL implementation process. Thus, only those that were most informed were identified to participate in this study. The information saturation determined the sample size. Nine respondents (two from the top management, three faculty members, two course coordinators, and two from the distance learning office) were individually interviewed. Two focus group discussions were conducted. One focus group was composed of four tutors; the second focus group was composed of seven staff from study centres and students' support office. An interview guide designed by the researcher was used both for interview and focus group discussion. The interview guide focused on the recruitment procedure, distance learning skills, staff workload, and working relationship issues. All interviews and focus group discussions were recorded on audiotapes and later transcribed. The data were compiled and subjected to qualitative analysis software called NVivo 2, developed by Qualitative Solutions and Research (QSR) International in 2002. This software was used to analyse the data by identifying the emerging themes and patterns. After the themes and patterns identified, the software helped to link the information provided from different interviewees to the identified themes and patterns.

Results

There were three categories of academic staff involved in the process of DL implementation: 1.) academic staff from faculties who maintain their departmental status as well; 2.) course coordinators hired as full time staff of the DL program; and 3.) tutors located in different study centres through out Rwanda. Academic staff members write the module and make sure the written courses contain the same course contents as is taught in the on-campus program. The course coordinators act as liaisons between the distance learning program and the departments; they plan the modules, write the modules, proof read the modules, and generally make sure they are ready on time. Finally, the course tutors work in the field with distant education students to facilitate learning during the course of the program.

Staff recruitment for distance learning program

The management policy on recruitment mandates that it is the Institute's academic lecturer who is responsible for developing the DL course materials, follow-up with individual distant learners, while at the same time oversee the pre-service program activities in both the academic and administration aspects. Thus, it was stipulated in lecturers' contracts that they cater to both programs, pre-service and in-service. As one academic lecturer said:

> *DL program activities are part of our duties. I should recognize that it is in my contract of appointment. But it is not easy to combine both module writing and the pre-service work.*

The course tutors were selected among the few qualified teachers on the ground and were requested by the Ministry of Education to facilitate the DL program. Two course tutors reported their appointment as follows:

> *To join the* [DL] *program we did not apply, but we were just selected and contacted that we are qualified teachers in our subjects and we will be doing tutorials for the distance training program of teachers.*
>
> *Course coordinators, in addition to other staff at the distance learning program office and study centers, were recruited specifically for the work they were doing.*

Capacity building in distance learning competencies

When they first joined the program, most staff members did not have any previous experience in distance education. They therefore had to undergo training in almost all aspects of distance education, a point that is articulated in the following two extracts:

> *When we started this program, we were not distance education specialists but then we got a lot of assistance from outside specialists. So we have undergone a lot of training and supervision. Nobody in the Kigali Institute of Education from the top management to our level had an idea about distance learning in terms of teaching.*
>
> *Like most of the other staff in this program, when we started we needed help as we did not have any background in distance training. But the director who knew our shortcoming organized training for us.*

This shortcoming was addressed through intensive and ongoing capacity building and staff development, which has since become a cornerstone of this program. As one participant noted:

> *This program is new for everybody here and in the Country, we have been benefiting from training from external experts who used to come and train us on the issue of distance education and students support system. We have a link with the University of London, which has a long experience in distance learning. And they will come to train us and share with us their experience. We would discuss with them the problem we are facing and they will advise us. We started from zero and we have worked some time through try and error, but now we have very much improved.*

Workload and incentive for faculty members

The data revealed several interesting findings. Although the recruitment policy did help to get faculty members involved in the DL program, it was not enough to meet their needs, nor was it applied to all requisite faculties. Indeed, most faculty members complained of being overworked and overloaded and as a result, they asked for compensation for writing DL course modules. Remuneration against a written module and recognition of the module as an academic work were considered. This finding is articulated in the following excerpt:

> *To come back to the challenge of faculties, at the beginning they were writing the module for free as part of their work. Then they keep complaining and the head of the program got some money for them* [and] *now they are paid. They get the*

> *money when they produce the module, which is a bit encouraging and motivates them.*

It was revealed in the data, however, that monetary reward is not the only thing that motivates faculty members. Indeed, the intrinsic motivation that really energised faculty is clearly articulated in the following statement:

> *We are learning new things, although it is demanding, and we do appreciate especially the exchange we have with the University of London from which we have learned a lot.*

Lecturer/course writers and course coordinators: Different priorities

Materials development emerged as one of the major tasks in the process of the Kigali Institute's DL program. The data showed that materials development is an activity that involves careful planning, coordination, team work, and capacity and expertise in the field of distance education on the part of the course coordinators as well as faculty members. It also revealed the interplay and tension between the tasks that need to be done (module development and production), the structure in which those tasks are accomplished (planning, coordination, team work), technology used (module features, deadlines), and different people carrying out the tasks (expertise, workload). In the larger process, the course coordinators were found to be the key persons involved. The data also revealed that there were conflicting priorities, as priorities between the lecturer/course writers and course coordinators seem to differ, a factor that affected their working relationship in terms of course module development. While the lecturer/course writers complained about their heavy workload and having to juggle their teaching duties and work for the in-service program, the course coordinators wanted modules written on-time to meet established deadlines. Two course coordinators clearly expressed this tension as follows:

> *We are challenged by the people with whom we work who have other commitments, especially the course writers who also have to teach, and sometimes they fail to meet the deadline we give them and this bring much pressure on us that results in a delay to deliver a module in the due time . . . working with them is not easy because so many times they complain that they are overworking, overloaded with teaching hours. In most cases, they give priority to pre-service work, the traditional mode.*

> *Some times some lecturers say they are overloaded, and if you do not keep going to remind them you will not get the work done. And the deadline arrives, yet you do not have the material. So we have to make sure that each lecturer is writing for us. We have to go in their department and some times phone them and keep checking on them.*

The lecturer/course writer and course tutor relationship: Challenges in student support

Another important feature of the DL program of teacher tertiary education in Rwanda is student support. The high importance placed on student support is manifest in one of the three operational departments of the distance training office. Student academic support, therefore, was designed as part of the program structure as narrated in the following:

> *To support students, they come each weekend to the 10 training centers set up for that purpose throughout the country. They meet with the course tutors, who help*

> *them as needed. If need be, the students may come and do their practical lab here in the Institution, but otherwise they have small labs in the centers.*

This quote seems to imply a close collaboration between the lecturers/course writers and the course tutors (facilitators), but unfortunately this was not the case. The data collected showed a breakdown in communication between the lecturers/course writers who see themselves as belonging mainly to the Institution and the tutors who report to the distance training office. The lecturers/course writers complained about not having control over what is happening in the field, especially in terms of the tutors' work and students' assignments. Tutors, on the other hand, complain about not having any opportunity to meet with lecturer/course writers to discuss the course materials and students' progress when necessary. One lecturer/course writer expressed his side of the problem as follows:

> *There is no relationship between distance training office and us, the course writers. There has not been that integration. They are doing things on their own and we are doing ours. There is a movement towards integration, but not yet done. So those tutors deal with the distance training office and do not have any relationship with the department and faculties. So our working relationship with the distance training office is to write the module, to go out for face-to-face sessions, give and mark the exam. The tutors there, they mark the assignments and facilitate students, but we do not have any contact with them. And this is a problem. We write the module and someone else facilitates and marks the assignment. We see the students only during the face-to-face sessions. This is why we are saying the distance training office should be integrated into the Kigali Institute of Education structure, so that all of them should be answerable to the departments and to the deans. Like now, we do not know where the marks of the assignments of our students are. They are some where in the field!*

Tutors also faced significant challenges as well, which is clearly articulated in the following:

> *But we do not participate in module elaboration. We receive the module with students when they are already elaborated. Sometimes but rare, they organize a meeting between us and course writer at the Kigali Institute of Education just to discuss the elaborated module. We would wish to participate in the writing of the module. But we do understand the module because we facilitate those in our area and most of them are the subject we have gone through. When we have any comment on a module, we do a written report and send to the Distance Training Office to handle it. Some times, especially in sciences, the level of the module is higher than the students and we, as subject tutors, we spend a lot of time with students explaining so that they can understand. There is almost no collaboration between us and course writers, except some individual initiatives from tutors. Like for the assignment, because we are the one to mark them, we just mark each one the way we understand following the marking scheme given along with the module. And we do not have any exchange on the result of students with the course writers. We mark and send to them the results. But then they are the one to set and mark the exam. We would have appreciated to have more collaboration with the course writers, which makes our work easier and benefit the students. Anyway, we have a feeling that the tutors are not really taken into consideration, and some of us are no longer motivated and have given up.*

Discussion and Conclusion

To run a successful DL program, a wide variety of skills are required. Some of the requisite skills, however, are not commonly found in tertiary institutions. Thus other people such as media producers, broadcasters, print shop managers, warehouse supervisors, experimental kit assemblers, and postal system experts are required (Dharanajan, 1996). Further, a pool of tutors to support distance learners is necessary. Managerial staff consisting of a centre manager, student counsellors and/ or learner support, and other administrative staff at each study centre are similarly required. Based on his experience with open universities, Dharanajan (1996) asserted that in most DL programs, more full-time administrative staff are required than full-time academics, and numerous seasonal and part-time staff who are also needed. In this study, all lecturer/course writers are drawn from full-time faculty in the pre-service program; as such, they are only employed part-time in the DL program. All tutors are employed part-time. This large pool of part-time labour can be compared to that of the administrative arm of the DL program, which is carried out within the departments of the DL units by full-time staff members consisting of a program director, department heads, and course coordinators.

According to the data, all staff in the DL program came from the traditional education system, and most had little or no experience in distance education settings prior to joining the Institute's DL program. The problem, however, is because an unusually wide variety of skills are required both on the part of academic and non-academic staff, the competencies required to organize and run a DL program are not typically available. Thus investments in people to become confident distance educators, to work in teams, to share a common vision and bring commitment to the program, are seen as a much more important investments in a DL system, than investments in material infrastructures (Dhanarajan, 1996; Kinyanjui, 1998). Capacity building and staff development through intensive and progressive training and support was one of the Institute's DL tertiary teacher education program strengths, an assertion that is supported by the results of this study. Although capacity building and staff development are important to all aspects of the Institute's DL program, it becomes even more important in course materials development because, in most cases, DL course materials are developed by lecturers from on-campus programs. As Perraton and Creed (1999) point out, typically academic lecturers do not have any experience in DL materials writing. As such, those academics charged with writing course materials underwent intensive training to equip them with the necessary skills for writing DL materials. The end result is that in-house produced modules are now user friendly, having been improved over time with each iteration. Other staff members underwent similar training in areas such as student support, DL program management, module editing, and course materials production.

Several studies (Dillon and Stephen, 1992; Rockwell, Furgason and Marx, 2000) have been conducted in the area of faculty reward and incentive. These studies show that rewards and incentives are important components of distance education programs in dual mode institutions, particularly since most of these academics are well established in the conventional mode and are typically resistant to change. In this study, it was found that rewards in the form of extra remuneration was used to motive faculty and compensate them for their heavier workload. Such rewards resulted in greater degree of observable commitment by faculty members in the Kigali Institute's DL program. The effort used by the Kigali Institute are in line with those proposed by Rockwell and colleagues (2000) who concluded that incentives should be provided for faculty to participate in distance education. Institutional rewards, workload expectations, and incentives are all crucial in getting faculty members to commit themselves to distance learning. In the same study, however, Rockwell and colleagues also found that faculty interest in distance education may also be intrinsic. Faculty are also interested in innovative instruction and applying new teaching techniques. The results of the study reported here echoes the findings made by Rockwell et al. (2000), indicating that while monetary reward is vital, DL lecturers/course writers also

reported their interest in learning new things, primarily through the exchange with the University of London. Thus the motivation of lecturers/course writers to join and participate in the Kigali Institute's DL program was based on much more than monetary reward -- it was also based on the opportunity to learn and do something new.

The results of this study revealed that the working relationship between lecturer/course writers and course coordinators was difficult at best. While the course coordinators' major concern was to meet the deadline and get the DL module written within a pre-planned timeframe, the lecturer/ course writers' first priority was their teaching responsibility at the residential program. This finding echoes that of Kamau (1999) who reported on the experiences of the distance education unit at the University of Botswana. Citing workloads from their parent departments as a major constraint, Kamau found that task completion had been a nightmare among module writers who failed to meet the agreed deadlines. As a consequence, there was a delay in the course implementation schedule (Kamau, 1999). Perraton and Creed (1999) echoed the findings by Kamau when they reported that the dual-responsibility of faculty members in African dual-mode institutions typically made it difficult to find time for writing course materials for DL programs. For faculty members to be efficient in their dual roles, their workload must therefore be realistically considered.

The findings also revealed a breakdown in communication between lecturer/course writers and course tutors. Generally, the working relationship between lecturer/course writers and course tutors was not described in positive terms. According to Perraton and Creed (1999) in dual-mode institutions it is common practice that the faculty members who teach a particular subject on campus, write the course materials for the DL program on that subject. Course tutors, on the other hand, simply facilitate the learning process. Nonetheless, it is the course tutors who are often the closest and only link to students in distance learning settings. Thus the working relationship between the lecturer/course writer and tutor is critical. Without clear communication, course tutors often cannot effectively facilitate the DL modules. Failure to enhance this relationship may also reduce tutors' motivation, particularly if they are employed part-time and have other competing professional and social obligations. A consequence, student performance may be negatively affected. Strategies to enhance effective communication between lecturers/ course writers and tutors must therefore be put in place.

Acknowledgement

I thank all those who willingly participated in this study. I also thank the contribution of the supervisor of this project, Professor N.S. Gwele, along with the Government of Rwanda for granting the much needed funding to carry out this study.

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International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September - 2006

Academics Telecommuting in Open and Distance Education Universities: Issues, challenges, and opportunities

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Abstract

Research in distance and online education has focused on how to improve students' learning and support services. Faculty satisfaction, as one of the five pillars in Sloan-Consortium's quality framework for online education, has received less attention in research. Besides online teaching, little research has examined the experiences of academics working in institutions where the faculty is dispersed geographically. Outside the academy, teleworking or telecommuting has become quite popular in recent years. Most research to-date has been conducted in information technology-related corporations and government departments, but hardly any in post-secondary educational institutions. Drawing on a literature review of research in telecommuting or teleworking, this paper discusses the potential benefits and drawbacks of telecommuting for academics and their families, and the potential opportunities for – and challenges faced – by their distance and online education institutions.

Keywords: telecommuting; telework; distance education; online education; faculty; work conditions; academia

Introduction

Distance education has emerged as an important form of education in the last few decades. In recent years, the offering of online courses and programmes has become increasingly popular not only in distance education institutions, but in traditional universities as well (Wheeler, 2002). The Sloan-Consortium proposed a five-pillar quality framework for online education in colleges: 1.) learning effectiveness; 2.) cost effectiveness; 3.) access; 4.) faculty satisfaction; and 5.) student satisfaction (Moore, 2002). Within this quality framework, distance education universities have been striving to enhance learning effectiveness and student satisfaction. Academic journals such as the *International Review of Research in Open and Distance Learning* and the *Journal of Distance Education* devote to the academic exchanges of ideas and research on how to enhance learning effectiveness for students. Fewer exchanges, however, have been about faculty satisfaction.

With respect to learning effectiveness, several theoretical models have been proposed to explain the lack of persistence or high attribution among students in higher education in general, and in open and distance learning in particular. These models focused on the fit between student and institution and on environmental variables. Tinto's student integration model (1975) theorized that successful persistence of traditional on-campus students was determined by both student characteristics and experiences prior to college, and their experiences while at college. The

student integration process, which comprised both academic and social experiences in college, was essential for student success. Bean and Metzner's student attrition model (1985), which was more applicable to non-traditional students who were commuters, emphasized the influences of factors outside the institution (e.g., family support and finance). More recently, Rovai (2003) synthesized these two models with research on the skills required and the needs of students in online and distance education (Workman and Stenard, 1996) into a composite model for student success in online and distance learning. Research has indicated that internal factors such as students' personality (Irani, Telg, Scherler, and Harrington, 2003), previous academic performance, ability for self-directed learning, and communication patterns, and external factors such as family support and finances, are related to student success and persistence in distance learning (Rovai, 2003).

With respect to experiences of learning at a distance, some research suggested a sense of isolation for many students (Wheeler, 2002) and a lower sense of social community at both the classroom and school level (Rovai, Wighting, and Liu, 2005).

Compared with learning effectiveness and student satisfaction, much less is known about faculty experiences and satisfaction in open and distance education institutions. If students' quality of learning is intricately tied to faculty's teaching effectiveness and research productivity, then it is crucial to understand and improve its faculty members' work environment. Research in higher education in general has examined the work conditions and the institutional climate that may affect academics' productivity and general well-being such as gender, ethnic diversity, and professional development (Gappa, Austin, and Trice, 2005). Few has examined the working conditions of academics at distance education institutions, even though some research has examined the faculty's experiences in online teaching in traditional institutions (Ryan, Carlton, and Ali, 2004; Shea, Pickett, and Li, 2005). This is no surprise as the Sloan-Consortium framework limits the scope of faculty satisfaction to "teaching online and for conducting research about improving teaching online" (Moore, 2002). Nothing is said about the faculty's role in disciplinary and inter-disciplinary research or its role in institutional governance and services provided to the institution and the community at large. An exception is Yick, Patrick, and Costin's study (2005) conducted in a for-profit online university, in which they examined online faculty's perception of online teaching, credibility, role of research and tenure in distance education by academic colleagues in traditional institutions.

Hardly any research exists that examines the experiences of academics working at a distance. In a chapter entitled *The Professor as Teleworker*, Guthrie, Olson, and Schaeffer (1998) conceptualized the distribution of faculty and students in higher education along the centralization-decentralization dimension. In such a framework, both faculty and students at a traditional university were in a centralized location. Other possibilities that existed in distance education institutions included: one where the faculty was centralized and students were dispersed; one where the faculty was dispersed and students were centralized; and one where both faculty and students were dispersed. It is not known, however, to what extent these three student-faculty dispersion models are used in open and distance education institutions. Like our students studying at a distance, many academics in these institutions are also working at a distance. What are the experiences of these academics? What are the issues, challenges, and opportunities for academics who telework or telecommute? What are the issues, challenges, and opportunities that face their families and their institutions?

Outside the academy, with rapid advances in information and telecommunication technologies, teleworking or telecommuting has become quite popular in recent years. Most research to-date that examines teleworking or telecommunicating has been conducted in information technology-related corporations in the private sector and government departments in the public sector. Little

research has been conducted in post-secondary educational institutions, even though it is common knowledge that professors and instructors "telecommute" some of the time.

Drawing on a literature review of research and practices of telecommuting as an alternative work arrangement outside the academy, this paper discusses some of the major non-technological issues, potential benefits and drawbacks of telecommuting for telecommuting academics and their families, and potential opportunities for and challenges faced by their institutions. Though critically important, a detailed examination of the technologies and the role that information and communication technologies play in enhancing the effectiveness and efficiency of a dispersed faculty work environment is beyond the scope of this paper. The issues discussed in this paper are confined to those relevant to full-time academics teaching in open, distance, and online education institutions as core faculty and who telecommute. Some open and distance education institutions such as Athabasca University and Capella University for example (Yick et al., 2005) incorporate both full-time, core faculty, and a contingent group of part-time faculty located in different regions (variously known as academic coaches, tutors, mentors, or adjunct faculty); however, it is not known how common such practice is. As full-time and part-time faculty have quite different work conditions and experiences at traditional, campus-based institutions (Mullens, 2001), it is important to examine the experiences of part-time faculty at open and distance institutions, as well in future research.

Literature Review of Research in Telecommuting outside the Academy

What is 'telecommuting' or 'telework?'

With rapid advances in information and telecommunication technologies, teleworking or telecommuting has become quite popular in recent years. Nilles (1975) first used the term 'telecommuting' to refer to working away from the conventional office and communicating with it by way of telecommunications or computer-based technology.

Although teleworking and telecommuting are often used interchangeably in the popular and academic literature, some authors have distinguished between the two terms. Pinsonneault and Boisvert (1996) suggested that telecommuting had three principal components: 1.) utilization of information technology (IT); 2.) link with an organization; and 3.) de-localization of work. De-localization of work takes four main forms: 1.) telecommuting from home; 2.) satellite offices; 3.) neighbourhood work centres; and 4.) mobile work. Satellite offices are small organizational facilities located close to residential areas where a telecommunication link with the headquarters is permanently maintained. Neighbourhood work centres are private information centres that are shared by employees from different organizations. Not limited to any specific physical location, mobile work is performed anywhere where workers can communicate with the office as necessary (e.g., in a hotel room) (Kurland and Bailey, 1999; Pinsonneault and Boisvert, 1996). These alternative work forms together constitute "teleworking" (Kurland and Bailey, 1999).

Who telecommute or telework?

According to Bailey and Kurland's (2002) comprehensive review, researchers have been unable to clearly describe the demographics of teleworkers. Many studies have been designed to identify the traits of employees who could telework and the factors that predict who will telework. The job traits often identified included an employee's ability to control work pace and little need for face-to-face interaction. Knowledge workers and information workers were considered prime candidates for teleworking. It was the perceptions of job suitability, however, that may better predict who would telework. Bailey and Kurland (2002) cautioned that job suitability was often confounded with issues of status and power. Although some clerical and professional positions

may both be suitable for telework, clerical workers may face greater opposition to their requests to work at home from management (Olson and Primps, 1984; Treasury Board of Canada Secretariat, 1996). Research to-date suggests teleworkers come from a predominantly male professional segment and a largely female clerical segment. Manager's willingness appears to be most predictive of who actually will telework (Bailey and Kurland, 2002).

Frequency of telecommuting

Research has shown that telecommuters generally work part-time at home, going to corporate offices for meetings and to confer with colleagues (Gurstein, 1995). Karnowski and White (2002) reported that telecommuters worked in the corporate office two days a week on average, with a range between half-a-day and four days. Similarly, teleworkers in Canadian federal government departments who participated in a pilot programme telecommuted three days a week on average (Treasury Board of Canada Secretariat, 1996).

Methodological issues of research in telecommuting

According to academic reviews published in the last few years (Bailey and Kurland, 2002; McCloskey and Igbaria, 1998), research has relied heavily on general surveys designed to simply establish the extent of telecommuting participation and on case studies of pilot programmes in which employees volunteered to be included in a formal programme or in which informal arrangements were made. The number of participants in many of these programmes was small. Early studies sought to describe the practice of such work arrangements. More recent research has included control groups or has surveyed both telecommuters and non-telecommuters, and their supervisors (Cooper and Kurland, 2002; Treasury Board of Canada Secretariat, 1996), indicating that the vigour of research is improving (Bailey and Kurland, 2002). The number of studies that tested explicit hypotheses or building models has grown steadily since the 1990s (Bailey and Kurland, 2002; McCloskey and Igbaria, 1998).

The lack of a clear, accepted definition is one of the weaknesses of research, making comparison across studies difficult (Ellison, 1999; Pinsonneault and Boisvert, 1996). Differences in definitions have revolved around the issues of use of technology, location, employment relationships, and employment structure. Should home-based self-employed individuals be included in the definition of telecommuters? Should only organizational employees who spend part or all of their work time at a non-traditional site instead of the traditional work place be considered as telecommuters? Should organizational staff working remotely at other organizations, branch, or subsidiary facilities within the organization, or satellite and neighbourhood work centres, be counted as telecommuters? Or should telecommuters be limited to those working alone at home? Should full-time and part-time employees who telecommute be studied separately as they may have different needs and motivation? (McCloskey and Igbaria, 1998)

Most research in telecommuting has focused on the telecommuter and, occasionally, on the telecommuter's supervisor and non-telecommuters. Few studies have examined the impact of telework on the organization as a whole, or even on smaller work groups. Research has been conducted mostly in information technology-related corporations and government departments (Bailey and Kurland, 2002).

The following section reviews research that addresses some of the potential benefits and drawbacks of telecommuting, and discusses some of the issues relevant to academics telecommuting from home, their families, and their institution.

Issues for the Academic

Balance between work and family

Greater flexibility in personal and family activities scheduling is often cited as one major reason for telecommuting from home (Pinsonneault and Boisvert, 1996). According to Bailey and Kurland's (2002) review, women are more likely than men to see family benefits as a reason for telework. A few studies supported the claim that telecommuting has helped employees to balance work and family responsibilities, particularly among dual-career couples. Other studies showed that couples with no children were more interested in telework than were couples with one or two children. For example, compared with non-teleworkers, teleworkers in the Treasury Board Pilot Programme reported a significant improvement in their balance between work life and personal life and in the flexibility to coordinate work and personal responsibilities (Treasury Board of Canada Secretariat, 1996). Employees working in home offices reported more positive views about family and personal life (i.e., management of home chores, eldercare, and childcare), than employees working in a traditional office (Hill, Ferris, and Martinson, 2003).

Home-based telecommuting, however, does not mean there is no need for childcare. Research has shown that multiple roles are likely to cause conflict, thus increasing stress rather than lowering stress (Bailey and Kurland, 2002; Gurstein, 1995). Some studies reported that teleworkers with small children had difficulty balancing childcare and work responsibilities (Olson, and Primps, 1984; McCloskey and Igbaria, 1998). Role conflict between work and family can affect telecommuting outcomes (Duxbury, Higgins, and Neufeld, 1998). For these reasons, some telecommuting programmes (Alberta Government, 1999; Treasury Board of Canada Secretariat, 1996) required that telecommuters have separate childcare or eldercare arrangements. Intrusions from family, neighbours, and friends were reported as major problems with working at home (Gurstein, 1995), thus lowering satisfaction with telecommuting (Hartman, Stoner, and Arora, 1991).

Increased productivity and job satisfaction

Another often cited potential benefit of telecommuting is increased productivity and work quality. Several factors could explain the potential increase in productivity: less distraction and fewer interruptions at home; a work environment better suited to the needs of the particular employee and the particular task; the ability for the employee to work during the most productive part of the day; and time saved from commuting (Pinsonneault and Boisvert, 1996).

Even though accounts of increased productivity among teleworkers are common, these accounts are based on self-report data. Few empirical studies have measured productivity increase directly and objectively (Pinsonneault and Boisvert, 1996), except using such easily measured variables as absenteeism (McCloskey and Igbaria, 1998). As most teleworkers in pilot programmes requested to work at home, their perceptions and claims may be biased. Interestingly enough, many of the teleworkers in these studies (Gurstein 1995; Treasury Board of Canada Secretariat, 1996) reported longer working hours. Bailey and Kurland (2002) suggested the possibility that increased productivity may have been confounded with longer hours at work. The lack of physical separation between the work and non-work domains may promote tendencies towards working longer hours for those employees who are highly involved in their jobs (Olson and Primps, 1984). There has been some evidence, however, for an association between telecommuting and higher productivity; for example, the telecommuters' supervisors in the Treasury Board Pilot Programme agreed with the telecommuters that productivity had increased, even though to a lesser extent (Treasury Board of Canada Secretariat, 1996).

Increased job satisfaction is another often cited potential benefit. Bailey and Kurland (2002) concluded that there was little clear evidence of an increase in overall job satisfaction among teleworkers in the studies they reviewed. Telecommuters did report, however, that they enjoyed the freedom and flexibility of working at home. For example, the telecommuters in the Treasury Board Pilot Programme (Treasury Board of Canada Secretariat, 1996) reported greater control over their work environment, less interruption in work, and less stress. Compared with employees working in a traditional office, those working in a home office felt that telework had enhanced their job performance, job motivation, and job retention (Hill, Ferris, and Martinson, 2003).

Telecommuting frequency appears to be a significant factor in individual and organizational outcomes (McCloskey and Igbaria, 1998). For example, Hartman, Stoner, and Arora (1991) reported that as the telecommuters in their study spent a higher proportion of their total work time in telecommuting, their perceptions of overall productivity at home declined. Golden and Veiga's study of technical professionals (2005) showed a curvilinear relationship between extent of telecommuting and job satisfaction, with the highest satisfaction level at about 15 hours per week.

In short, the research has showed no clear evidence that telecommuting is associated with higher productivity or higher overall job satisfaction. If telecommuting has real, measurable increase in productivity, then it is good for employees and their organization. If higher productivity results from longer working hours however, then it is likely to harm the employees and their families. Considering that many academics are high achievers and are fully committed to their work, the blurring of the boundaries between work and family lives can be problematic. The lack of balance between work and personal life was a main source of stress reported by new faculty members in traditional institutions of higher learning (Sorcinelli, 1994).

Work environment at home

Some cited a more comfortable work environment as an advantage of home-based telecommuting (Kurland and Bailey, 1999). What are home workspaces like however? In Karnowski and White's (2002) survey of facility managers, 87 respondents reported that 38 percent of their commuters' off-site work areas were shared space, and only 35 percent were separate, home offices. In a Canada-wide survey, Gurstein (1995) reported that 92 percent of their respondents who were teleworkers in the public sector, crown corporations, or private sector had a designated workspace at home, but two-thirds had shared space. The most frequently reported location was the basement (30 percent), followed by a spare room (24 percent), and the main floor of the house (18 percent). The median office size was 13.4 sq. m.

For many home-based workers, their work environment at home is far from ideal. In Gurstein's (1995) survey, the ideal type of workspace included a separate room with natural lighting and ventilation, visual and acoustical privacy, and adequate storage and power outlets. Many survey respondents, however, indicated that they had to modify their home to make it suitable for work. The major problems included lack of storage space (50 percent), workspace too small (45 percent), poor lighting (35 percent), and too few telephone lines (30 percent). Safety and health concerns must be addressed to ensure the workspace at home is hazard-free and meet minimum ergonomic standards (Gurstein, 1995; Rodstein and Watters, 2001).

A related issue is the costs in equipping and running the home office. Typically, employers paid for additional data connection points (Rodstein and Watters, 2001) and provided off-site computing and telecommunications equipment, but less frequently, office equipment (Karnowski and White, 2002; Treasury Board of Canada Secretariat, 1996).

Inadequate space and equipment can affect the productivity of telecommuting academics. Lack of storage space is likely a bigger problem for academics than managers and professionals surveyed

in previous research, as academics tend to accumulate books and reports in addition to needing space for computer and telecommunication equipment. Academics in some disciplines must find alternative research space outside their homes that conforms to strict safety and security standards. Unless there is appropriate insurance coverage, telecommuting academics cannot have research assistants working at their homes or meet with colleagues and visitors at their homes.

Professional and social isolation

As with students (Wheeler, 2002), working alone at home can be an isolating experience. Professional and social isolation is a commonly cited obstacle to telecommuting. Studies have examined the attitudes of both employees and managers, and have compared telecommuters' and non-telecommuters' perception of various aspects of their work, such as visibility (McCloskey and Igbaria, 1998). One fear employees expressed was that being out-of-sight would limit opportunities for promotion and organizational rewards (Cooper and Kurland, 2002). Similarly, telecommuters in another study reported that career opportunities, sense of belonging to organization, and interaction with colleagues on work-related matters, were the negative changes related to personal and professional life (Treasury Board of Canada Secretariat, 1996). Note that because many of the larger studies in telecommuting examined only the perceived impacts of telecommuting rather than actual impacts, there is yet any empirical evidence to substantiate the claims of actual impact on career advancement (Pinsonneault and Boisvert, 1996). Nevertheless, perceived professional isolation appears to be inextricably linked to employee development activities. In a qualitative study of telecommuters, their supervisors, and non-telecommuters from two high-technology firms and two city government agencies (Cooper and Kurland, 2002), telecommuters perceived that they did not have the same degree of access to informal development opportunities regarding: 1.) interpersonal networking with others in the organization; 2.) informal learning; and 3.) mentoring from colleagues and superiors. Interestingly, these telecommuters' perceptions were consistent with those of their supervisors and non-telecommuters.

Cooper and Kurland (2002) noted that employees of public firms appeared much less concerned about telecommuters missing employee development opportunities than did private sector employees. Similarly in Hartman, Stoner, and Arora's (1991) study, those telecommuters employed by government agencies reported more satisfaction and higher productivity than those employed by business firms. This was apparently due to the more formal systems governing advancement and skill-development and the greater reliance on formal sources of information (Cooper and Kurland, 2002). Feelings of isolation may also be influenced by employees' need or expectation for advancement opportunities (McCloskey and Igbaria, 1998).

Socially, telecommuters reported missing the informal interaction with colleagues that occurs in the office (Cooper and Kurland, 2002; Treasury Board of Canada Secretariat, 1996). In a four-factor model of telecommuting withdrawal, "community" defined as "the affect for office social interactions," was primarily associated with reducing telecommuting in a heterogeneous sample of telecommuters across organizations (Fireman, 2000).

Frequency of telecommuting appears to be an important factor influencing isolation: employees in the public sector telecommuting less frequently reported feeling less isolated than those in the private sector telecommuting more frequently (Cooper and Kurland, 2002). Similarly, Pinsonneault and Boisvert's (1996) review concluded that limiting telecommuting frequency and requiring telecommuters to attend company meetings and social events would likely reduce feelings of isolation.

In traditional institutions of higher learning, new faculty members often experience a feeling of isolation when they enter the academy (Cawyer and Friedrich, 1998; Sorcinelli, 1994) and desire

support from other faculty members (Magnuson, 2002), and more informal communication with administrators (Cawyer and Friedrich, 1998). In an online environment where faculty members were dispersed geographically, isolation from day-to-day contact with virtual colleagues was typical (Yick et al., 2005).

Technology requirements and work group communication

Effective communication remains a challenge when in a telecommuting context (Kurland and Bailey, 1999; Pinsonneault and Boisvert, 1996), especially when participating in a work group. Bailey and Kurland's (2002) review indicated that few studies had examined the impact of telework on smaller work groups. Researchers, however, have begun to examine how virtual team functions in organizations (Beyerlein, Johnson, and Beyerlein, 2001).

Although it is beyond the scope of this paper to discuss how to use technologies to enhance communication, it is necessary to emphasize that technology requirements play an important role in effective work group communication. In a study examining part-time telecommuters, their supervisors, and non-telecommuters from different organizations, Belanger, Collins, and Cheney (2001) reported that availability of information system technology, availability of communication technologies, and work-related communication patterns within their work groups, positively impacted telecommuters' productivity, performance, and satisfaction. For perceived productivity to be high, there must be a fit between the level of information system technology and the level of communication technology. When the telecommuter occupied a central position in the work group and thus was required to communicate with members frequently, the telecommuter perceived lower levels of productivity and performance.

Through teaching online, academics in online and distance education institutions are constantly exploring how to use information and communication technologies to enhance students' learning effectiveness. They need to consider expanding the use of the same technologies (e.g., Web-conferencing tools) to communicate and collaborate with colleagues and staff who are dispersed geographically.

Issues for the Organization

Remote management

Despite many positive claims of benefits for the employee, the organization, and the society, telecommuting programmes have not expanded as rapidly as expected. Managerial resistance or reluctance has been the biggest hurdle (Bailey and Kurland, 2002; Karnowski and White, 2002).

Performance Evaluation and Feedback: Performance monitoring and measurement, and managerial control are challenges facing managers of telecommuters (Kurland and Bailey, 1999). Pinsonneault and Boisvert's (1996) concluded in their review that telecommuting requires a change in employee performance from one that is based on process and physical presence, to one that is based on project management and result. Telecommuters should be evaluated in terms of quality, quantity, timeliness, and the extent to which objectives are met. To that end, managers must provide clear descriptions of performance measures, evaluate, and provide feedback regularly. For the employee in Hartman, Stoner, and Arora's (1991) study of telecommuters, satisfaction with how the quality and quantity of work done at home was evaluated was significantly correlated with both telecommuting productivity and telecommuting satisfaction.

As academic work has traditionally been assessed by results, the lack of physical presence may be less of a problem. Nonetheless, clear criteria for assessing employee performance must be

established, and regular feedback on performance be provided to employees, especially new employees. New faculty members at traditional institutions have reported that institutional expectations (i.e., about tenure and promotion) were unclear (Cawyer and Friedrich, 1998) and that inadequate feedback, recognition, and reward, unrealistic and unclear expectations, and insufficient resources were major sources of stress (Sorcinelli, 1994). In distance and open learning institutions, the expectations for research and services are even less clearly defined. Yick and colleagues (2005) argued that research should be a "core value" promoted by distance and online university because research is critical for the faculty's professional growth and research establishes credibility for the faculty, especially those working with doctoral students.

Managerial Support: To be effective in the telecommuting context, managers must establish a relationship based on confidence and trust with their workers, facilitate good communication between telecommuters and non-telecommuters, ensure adequate resources (e.g., ergonomic furniture and computer equipment at home offices), keep telecommuters informed and active in organizational activities, treat telecommuters like any other employee, and provide training for the whole organizations, including safety and security issues (Pinsonneault and Boisvert, 1996). Research has indicated that satisfaction with the technical and emotional support received from the supervisor while working at home was significantly correlated with telecommuting satisfaction (Hartman, Stoner, and Arora, 1991). Indeed, "discomfort," referring to a lack of supervisor and/ or organizational support, was the primary factor associated with stopping telecommuting in a heterogeneous sample of telecommuters across organizations (Fireman, 2000).

To ensure that all employees have access to the same information, Cooper and Kurland (2002) recommended that information about training opportunities, performance evaluation, career opportunities and advancement, be disseminated through formal channels. Training should be focused on how to maintain open communication between the telecommuter and non-telecommuters, and to stimulate synergy between disparately located employees. Increasingly, organizations are using distance learning and e-learning to train their employees (Burgess and Russell, 2003) and online-mentoring (Ensher, Heun, and Blanchard, 2003). More research to assess the effectiveness of these new initiatives is needed.

Safety and health in home offices are important issues to consider in a progressive telecommuting programme. Rodstein and Watters (2001) recommended that telecommuting policies should ensure minimum ergonomic standards for workstation design are met. Polices should also include clauses related to a hazard-free workspace, employer liability for injuries and illnesses and procedures for reporting them, loss and liability associated with at-home office duties, and insurance coverage of the home office. Even though employers typically retained the right for home inspection in all formal programmes, inspections were seldom conducted (Karnowski and White, 2002).

Like students (Tinto, 1975), new faculty members especially need to be integrated into the institution of higher learning. They desire support from other faculty members, including mentoring (Magnuson, 2002) and faculty orientation programmes (Sorcinelli, 1994). For example, in Cawyer and Friedrich's (1998) study of new faculty members, the number of hours spent in orientation was the single best predictor of a newcomer's satisfaction. In open and distance education institutions where the faculty is dispersed, the institution must provide adequate and effective training and administrative support in the use of technologies to ensure faculty success and satisfaction in online teaching (Yick et al., 2005). Online training and online mentoring could be implemented together with more traditional means of training and mentoring.

Social integration helps to build trusting relationships (Cooper and Kurland, 2002). Creating team synergy, transmitting organizational culture, and promoting a feeling of belonging, remain the

challenges facing organizations that implement telecommuting programmes (Kurland and Bailey, 1999; Pinsonneault and Boisvert, 1996). To promote a sense of belonging, open and distance education institutions should explore the use of the same tools and technologies used to build communities as we do for our students. In addition, social events contributed significantly to successful socialization within an institution of higher learning (Cawyer and Friedrich, 1998). Events can be held regularly to recognize and celebrate employees' individual and collective achievements.

Recruitment and retention

Studies of the impacts of telecommuting on faculty recruitment and retention have yet to be located. As proponents for telecommuting claim (Pinsonneault and Boisvert, 1996), telecommuting has the potential to help open and distance education institutions attract academics from a wider geographic area (e.g., outside major urban centres) and from qualified applicants with certain constraints (e.g., disabilities, family responsibilities, lifestyle choices, spousal employment). For employees with disabilities, successful accommodation has been made through telework (West and Anderson, 2005). For couples who are both academics, the option of one partner telecommuting from home while the other partner works for a campus-based institution in the same city can be very desirable. Even though Canadian universities have different policies in hiring couples, not all institutions are willing to accommodate both partners (Eisenkraft, 2004). Telecommuting also has the potential to help retain competent staff (Pinsonneault and Boisvert, 1996). Academics who might otherwise leave a position can remain in their jobs, for example, when their spouse's job requires relocation. Telecommuting may also be an attractive option for those academics in traditional institutions who are interested in online teaching but are not receiving sufficient recognition within their institutions (Yick et al., 2005) and who prefer not to relocate.

On the other hand, the drawbacks of telecommuting discussed earlier could lead to a problem of recruitment and retention in the future. A shortage of university faculty in Canada has been projected to occur beginning in the 1990s when many professors retire (Association of Universities and Colleges of Canada, 1991; Mooney, 1989). As Canadian universities begin to compete for the best academics, open and distance education institutions must strengthen their position in the competition (Heller, Jugdev, Kanuka, and West, 2005) and do their best to retain competent staff. Because many traditional universities are moving toward offering online courses as well (Yick et al., 2005), these institutions can lure away experienced academics who teach online and who feel a sense of isolation telecommuting at their open and distance learning institutions provides. The online teaching experience at an online university would enhance the chance of academics returning to traditional universities should they desire, as expressed by some participants in Yick and colleagues' (2005) study.

Despite the increasing popularity in online education, distance education has continued to be perceived as less desirable in the traditional higher education system (Yick et al., 2005). Some faculty members in their study recognized the current lack of concerted research activity at online universities would hinder their transition to teach at traditional universities. To increase the institution's credibility, faculty members must be encouraged to pursue and engage in scholarly activities through concerted support and resources provided by the administration. In an educational environment where the faculty is dispersed, faculty and university administration may explore the same strategies that they use to communicate with learners (e.g., conferencing tools) to form faculty support groups (Yick et al., 2005) and to facilitate collaboration and idea exchanges.

Conclusions

This paper has discussed several major non-technological issues to be addressed by open and distance education institutions where their core academic staff telecommutes: balance between work and family lives; job productivity and satisfaction; work environment at home; professional and social isolation; remote management; and faculty recruitment and retention. Below is a summary of the potential benefits and drawbacks for telecommuting academics and the opportunities and challenges facing their institution.

Potential benefits for academics

1. Greater autonomy, more flexibility in work schedule

2. Better balance between personal, family, and work life for some

3. Higher perceived productivity and quality of work

4. Comfortable work environment at home for some

5. Opportunity to take advantage of the geographic location where they reside to conduct research (Yick et al., 2005) and to provide services to those communities

Potential drawbacks for academics

1. Increased family-work role conflicts for some

2. Lower perceived personal growth and career advancement for some, particularly among new faculty members

3. Professional and social isolation for some; lower collegiality and sense of belonging

4. Over-working because of lack of separation between the work and family domains

5. Inadequate work environment at home for some; occupational and health issues; costs in running the home office

Opportunities for the institution

1. The ability to recruit employees from a wider geographic area and employees with certain constraints – e.g., disabilities, family responsibilities, spousal employment

2. Better retention of competent staff

3. Other broader strategic planning issues for the institution – e.g., real estates, equipment, and other costs, disaster and emergency management, and usage efficiency of information system proposed in the literature (Pinsonneault and Boisvert, 1996) are not considered in this paper, but are worth examining in future research

Challenges for the institution

1. Monitoring and evaluating performance based on results rather than physical presence or visibility

2. Ensuring adequate and appropriate information and telecommunication technologies are equipped in home offices, and effective training and support are provided

3. Ensuring telecommuting academics have an adequate, safe and healthy work environment at home

4. Providing space for research to those academics with specific spatial needs – e.g., laboratories

5. Creating team synergy, transmitting organization culture, and promoting a feeling of belonging to the institution, especially among new faculty members

6. Retaining competent staff and competing with traditional institutions for academics experienced or interested in online teaching as post-secondary institutions anticipate a faculty shortage in the near future.

Future Research Agenda

This paper has merely scratched the surface of the many issues regarding faculty work conditions and satisfaction in open and distance education institutions. As such, this paper represents a launching pad for further empirical research. Some questions for future research could include:

1. To what extent and in what forms is teleworking implemented in open and distance education institutions around the world?

2. How can technologies be used to better build communities, facilitate collaborations and teamwork, and foster professional development?

3. How can we orient new academics in particular; that is, to learn about job responsibilities and the institutional culture and to develop a sense of belonging to the institution where the faculty is dispersed?

4. How can telecommuting academics maintain a balanced lifestyle when the personal, family, and work boundaries are blurring?

5. What predicts telecommuting success for full-time academics?

6. What are the work experiences of part-time faculty who telecommute?

7. What are the work experiences of academic staff working at remote locations?

8. Kurland and Bailey (1999) argued the satellite office had most of the advantages of home-based telecommuting, but fewer challenges. Despite some interest in working from a satellite office or a neighbourhood centre expressed by Gurstein's (1995) survey respondents, no study that compares home-based telecommuting and satellite offices has yet been located. What are the relative strengths and weaknesses of different forms of teleworking – home-based telecommuting,

satellite office/ campus, neighbourhood centres for academics in remote locations, and mobile work?

Author Note

This paper is a revision of a preliminary draft position paper for discussion at the Centre for Psychology at Athabasca University in March of 2003. The author wishes to thank her colleagues of the Centre for Psychology and the Teaching for Good Instructional Fun (T.G.I.F.) committee for their encouragement, and two anonymous reviewers for their insights and constructive comments on the earlier draft of the manuscript.

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International Review of Research in Open and Distance Learning
Volume 7, Number 2. *ISSN: 1492-3831*

September - 2006

Faculty Development as Community Building

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Abstract

When faculty development is viewed as an ongoing need and when we approach faculty development as a long-term, continuous effort, community building becomes a part of the process. Carefully designed faculty development approaches can facilitate and create a culture that supports a thoughtful focus on teaching, while at the same time, nurture a sense of connectedness and collegiality across the organization that is vital to continuous innovation and improvement. This paper reports on a program designed to improve the collegial culture at a higher educational organization in Western Canada. While the program was aimed at a Social Work Faculty at a research university, we believe the design can be modified and applied in other disciplines and in other environments, such as distant and open universities. We conclude with suggestions for applying our approach to faculty development in open and distance institutional contexts.

Keywords: faculty development; community building; professional development; higher education; open and distance education, community of practice; collegiality

Introduction

The growing number of blended, online, and distance education courses, programs, and degrees offered by institutions of higher education offers challenging new opportunities to re-examine teaching and learning. Carefully designed faculty development approaches can create a culture that supports thoughtful focus on teaching, while nurturing the sense of connectedness and collegiality that is vital to continuous innovation and improvement in post-secondary institutions.

Today, most universities – both open and distance and campus-based alike – have faculty who care deeply about teaching, yet feel isolated and disconnected from like-minded colleagues. Simply working in the proximity of others does not ensure a motivating environment that enhances professional collegiality. All educational institutions and the sub-groups that operate within them should attend to the development of dynamic and nurturing interactions among faculty that support excellence in instruction and the scholarship of teaching. Such conditions, in turn, will promote a collective sense of mutual benefit and reciprocal responsibility among faculty.

Described in this paper is a faculty development program designed to reduce feelings of isolation among faculty, while building a community of learners, improving teaching, and building organizational capacity. While the program was aimed at a Social Work Faculty at a face-to-face, commuter campus located in a large city in western Canada, it is suggested that the design can be

modified and applied in other disciplines and in other environments, such as distant and open universities. We also point to literature that has influenced our thinking as professional developers – influences that resonate in the program design. We conclude with suggestions for applying our approach to faculty development in open and distance institutional contexts.

Literature Highlights

Faculty isolation and the impact on the organization

According to Smith and Smith (1993), commonly cited concerns among teaching staff at colleges and universities include a sense of isolation, lack of community, and lack of belonging. They contend that if left unattended, such concerns may progress toward exasperation, disillusionment, and the eventual alienation of faculty. "This isolation, tolerable at age thirty, becomes deadening by age fifty," assert Smith and Smith (1993, p. 82). In response to the isolation felt by teachers and faculty members, Palmer (1999) strongly supports collegial socialization as a core component of professional development programs and refers to the increasing isolation of faculty, their research agendas, and teaching activities as the "privatization of teaching."

> *Privatization creates more than individual pain; it creates institutional incompetence as well. By privatizing teaching, we make it next to impossible for the academy to become more adept at its teaching mission. The growth of any skill depends heavily on honest dialogue among those who are doing it. Some of us grow by private trial and error, but our willingness to try and fail is severely limited when we are not supported by a community that encourages such risks. The most likely outcome when any function is privatized is that people will perform the function conservatively, refusing to stray far from the silent consensus on what 'works' – even when it clearly does not. That I am afraid, too often describes the state of teaching in the privatized academy* (Palmer, 1999, p. 1).

Professional development and collaboration

In line with Palmer's emphasis on addressing the "privatization of teaching," Smith and Smith (1993) outline two programs that they assess as particularly effective in promoting a sense of belonging and in providing opportunities and challenges for faculty to experience incremental, long-term professional growth: the New Jersey Department of Higher Education and the New Jersey Institute for Collegiate Teaching and Learning Partners in Learning Program. They identified strengths of the collaborative process used in these two programs, including their ongoing nature, faculty empowerment and ownership, and their potential for transformation. They found potential in these programs to encourage revitalization, re-energization, and reinvestigation among participants.

The academics in Zuber-Skerritt's (1992) study who experienced various methods of professional development indicated a preference for an inquiry type approach to professional development: "The best way to learn about teaching in higher education is not to be given information and advice by outside experts who determine what academics need to know. Rather . . . academics can and should try to learn about teaching as they do in their discipline or particular subject area, that is, as personal scientists" (p. 75). Those who view knowledge building from a Vygotsky's (1978) social constructivism framework would put this inquiry process in a social context. Learning about teaching within a social constructivist framework is more of a social process involving formulation of knowledge through sharing and comparing learnings and understandings

with others. This fits well with the collegial model Palmer (1999) argues for and is represented in the programs described in Smith and Smith (1993). It is also in line with the collegial aspects of the "Process" and "Discipline" approaches to faculty development described in the review of literature on professional development completed by Amundsen and colleagues (2005). Collaborative work in collegial groups to enable individuals to examine their thinking about teaching is one of the characteristics of the "Process" approach. The "Discipline" approach is characterized by small groups of colleagues from the same discipline making explicit their understanding of knowledge development or learning in their discipline to develop their teaching and critique the perspectives and understandings of their colleagues. Both approaches emphasize the important role of colleagues in professional development to support reflection on, and development of, knowledge and skills required for effective teaching (Amundsen, Abrai, McAlpine, Weston, 2005).

Learning communities/ communities of practice

The focus on collegiality and creating a sense of belonging, as well as formulation of knowledge as a social process, is not new. Rather, it can be found throughout the ongoing development of the metaphor of learning community. Schön (1973) argues for the development of institutions that are capable of bringing about their own continuing evolution by functioning as "learning systems." Senge (1990) introduces the concept of the learning organization to explain and justify strategies to enhance the capacity of all members of an organization to collaborate in the achievement of agreed-upon goals. Hord, Hall, Rutherford, and Huling-Austin (1998) propose that learning communities are distinguished by: supportive and shared leadership, collective learning, shared values and vision, supportive conditions, and shared personal practice. Sergiovanni (2000) describes the learning community as an organization whose members are committed to thinking, growing, and inquiry, and as a place where "learning is an attitude as well as an activity, a way of life as well as a process" (p. 59). Many authors write about the power and usefulness of learning communities in colleges and universities (Barab, Kling, and Gray, 2004; Lenning and Ebbers, 2000; Na Ubon and Kimble, 2003; Palloff and Pratt, 1999; Shapiro and Levine, 1999). Wenger, McDermott, and Snyder (2002), who are often credited with the contemporary development of the metaphor of communities of practice, state that within a community of practice "learning requires an atmosphere of openness . . . the key is to build an atmosphere of collective inquiry" (p. 37).

Researchers that work in the area of professional faculty or teacher development and discuss elements of learning communities in their models include: Palmer (1999) explicitly describes a social constructivist process of faculty development during which faculty are encouraged to reflect upon and write about teaching incidents: Duffy (1996) asserts that "knowledge is something people do together," and proposes collegial, collaborative, and team-oriented initiatives aimed at increasing teaching effectiveness. Stahl's (1996) "open systems dialogue" model of teacher development at the tertiary level includes ongoing discussion to support mutual growth among the participants. Schwier (1997) has articulated the conditions necessary for a learning community within the context of describing what is necessary for virtual learning communities – i.e., allow for participants to have their interests and needs represented (negotiation), intimacy, commitment, and engagement.

An Example of Communities of Practice approach to Faculty Development

Vision, Goal and Strategy

The Vision: Make courses and degree programs more accessible throughout the Province and North America

The Goal: Prepare faculty to effectively integrate technology to support an active learning approach and to prepare them for teaching in blended or completely online learning environments

The Strategy: Focus intense attention on best practices in teaching and learning in an atmosphere of collegial support

In 2000, when the Faculty of Social Work at the University of Calgary envisioned more flexible ways to deliver courses and make its degree programs more accessible throughout Alberta and North America, distance education was an obvious option to consider. The motivation and capacity of faculty members to take advantage of existing and emerging technologies seemed lacking, however. A few individuals had experimented, with reasonable success, with delivering option courses via web-based course delivery tools such as *Blackboard* and *Centra*, but the majority of faculty viewed these approaches with skepticism, doubting the quality of teaching and learning that could be achieved through these methods and the capacity of students to succeed in an online environment. They were also unsure of student access to technology.

Five years later, not only has the number of option courses delivered through distance learning technologies and the number of students enrolled in them increased, but the Faculty also offers a Master of Social Work degree online and a Bachelor of Social Work degree in a blended format that emphasizes online over face-to-face delivery. How did this happen? We believe the faculty development events and processes that supported this change in capacity and disposition are the very ones that can build and support communities of practice in post-secondary institutions, be they primarily open and distance institutions or more traditional campus-based institutions.

We started with this assumption: *a culture that supports learning, nurtures collegiality, and encourages the co-creation, sharing, and use of teaching knowledge and skills is a critical ingredient in a successful professional development effort.* We emphasized process and culture-building in our approach, with information sharing and skill development occurring simultaneously with development of a supportive culture. We assumed that keeping current with new information and skills was only a part of what improves teaching. Working to create Senge's (1990) "learning organizations" or developing Wenger and colleagues' (2002) "communities of practice" takes time and commitment, but can provide big pay-offs in terms of providing energizing environments in which faculty feel connected and committed to each other and the goals of the organization. The fact that it takes time, and the sense that the whole process is too abstract, often prevents organizations from ever taking the first step and committing to keep taking steps in that direction. What first steps did the Faculty of Social Work take?

Detailed Description of Context and Process

Our previous experience with "training" faculty on how to use technology indicated three distinct groups of learners within our Faculty. A small group of faculty could be described as 'early adopters,' according to Rogers' (1962) definition. These individuals attended training sessions,

learned, and subsequently applied technology in their teaching. A second group of faculty members simply did not attend training sessions on educational technology. While a third group attended technology training sessions, individuals in this group remained fundamentally uncertain about how to apply technology to their teaching. Individuals in the latter group also quickly forgot what they had learned about technology and became frustrated if – and when – they tried to access it.

Our observation of faculty members' typical reactions to traditional technology training led us to believe that our approach to professional development would need to be something fundamentally different from "training" if we were to achieve our goal of helping a significant number of faculty members integrate online strategies to enhance their teaching. To that end, we implemented what we called an Institute designed to engage faculty members by asking them to identify and work on projects that identified and addressed authentic questions arising from their teaching experiences: to put into practice the "personal scientist" concept of Zuber-Skerritt (1992) with the collegial context that Palmer (1999) argues for in professional development programs.

Further, a professional development approach was used that incorporated learning about online educational technology within a context of enhancing teaching excellence. This approach successfully attracted approximately two-thirds of 35-member Faculty to an intensive Institute focusing on the meaningful integration of technology into teaching. Participants in the Institute included not only many early adopters of technology-enhanced teaching, but also instructors with no prior experience using technology beyond email, word processing, and Internet browsing.

Overview ~ Institute Design and Implementation

The Institute was built on an inquiry approach to learning with activities spanning the course of a full academic year. Prior to the start of the Institute, faculty members identified teaching- and technology-related questions arising from their interest in improving their own teaching. These authentic, faculty-driven questions provided the inquiry-based foundation of the intensive, two-and-a half day kick-off event.

Rather than focusing on technology, the emphasis of the Institute was consistently on enhancing teaching effectiveness. Various online and computer mediated technologies were introduced in a manner that addressed teaching and learning issues. At the end of the Institute, each participant had an individualized plan to implement during the academic year. During mid-year meetings, participants reported on their progress and received feedback and support for continuing work on implementing their plans. At the conclusion of the year, faculty participants shared what they had accomplished and learned, and proposed "next step" ideas.

Phase One: Institute preparation

Significant preparation occurred with each participant prior to the Institute's actual implementation. To meet both individual and group needs, efforts were made to ensure each participant's ownership of their own inquiry process, to solidify their commitment to specific areas of learning, and to guide the design of the Institute sessions.

After initial support was obtained from faculty administration, an email was sent to all faculty members, inviting their participation in the Blended Learning Faculty Development Institute. The invitation included details on Institute expectations, timelines, and stipends. Faculty members who responded received additional information and instructions on designing a project that

reflected the purpose and goals of the Institute; however, the structure left room for addressing improvements they wanted to make in their teaching and use of technology. This approach personalized participation and created the Institute's inquiry-based foundation. It also formally anchored the use of technology in teaching activities, and imparted the strong message that technology should be at the service of teaching and learning objectives.

Each participant met with the primary Institute facilitator to discuss and refine their project proposal. Some participants had well-defined plans and needed only to discuss Institute sessions that would be most beneficial. Others had drafted plans that seemed overly ambitious or not sufficiently challenging; with these participants, the facilitator suggested modifications to ensure their projects were both feasible and significant. Some faculty members wanted to participate, but lacking basic knowledge about educational technology, were unable to suggest appropriate projects. The facilitator helped these participants identify teaching areas and technology topics to explore during the Institute. In some cases, the facilitator allowed faculty to postpone finalizing a project until after the Institute kick-off.

A final pre-Institute preparation involved the construction of a *Blackboard* website to engage participants, support the Institute process, and model uses of that technology. The *Blackboard* website was used to post Institute schedules and instructions. To help Institute participants access current literature related to their inquiries and projects, a reading packet was also assembled and distributed. Participants posted summaries of readings and their reactions to them. Participants read and responded to each others' *Blackboard* postings, thereby using the technology and beginning the collegial discussion of teaching and learning with technology before the kick-off session began in late August.

Phase Two: Institute kick-off

The two-and-a-half-day Institute kick-off began with lunch and small group discussions during which participants learned about each others' projects. This, along with several other large group sessions, helped to foster and develop a sense of community within the group – a sense that everyone was learning at different rates and in different ways, but that they were working toward the same goal of teaching excellence. The agenda offered a large number of choices through which participants could tailor the experience to their own needs. There were beginning, intermediate, and advanced technology sessions, plenary sessions, and discussion sessions. Participants selected which sessions to attend. While each participant was provided a personalized agenda, the decision on which session to attend was left to the individual, which reinforced the inquiry-based nature of the event and emphasized individual responsibility for meeting learning needs.

Kick-off session learning opportunities

Learning opportunities available to participants can be broadly grouped into two areas: teaching/ learning, and technology. In the area of teaching/ learning, participants were offered a variety of discussions and presentations on best practices in post-secondary education, inquiry learning, the use of portfolios within social work education, various innovative approaches to dynamic assessment, and instructional strategies for blended learning contexts.

In the area of technology, sessions were offered on *Blackboard*, *Centra*, videoconferencing, videostreaming, and the use of *Excel* within research courses and/ or projects. Each session

included hands-on experiences for participants, taking into account their knowledge and skill levels and the particular projects on which they were working.

In addition to breakout and general sessions, an online learning environment was created by setting up independent learning stations called *e-Stations*. These were spaces that contained the technology and instructions participants needed to investigate specific topic areas. Nine *e-Stations* were made available for participants to explore throughout the kick-off session days at their descretion. Content was also made available online for access anytime, anywhere. Examples of topics covered in the *e-Stations* include: putting digital photographic stills and video in *Blackboard*, concept-mapping using software called *Inspiration*, and classroom assessment and feedback techniques for online learning.

The final session of the Institute kick-off included all participants and involved a modified "Tuning Protocol" activity (Allen and McDonald, 2003). During this session, each participant received peer feedback and encouragement on their particular project ideas and implementation plans. We also collected participant requests for follow-up activities and support.

Characteristics of faculty projects

To enhance the likelihood of success, several criteria were suggested for Institute projects. Projects were tailored to be appropriately challenging for each particular Institute participant, promise increased student learning in classes taught by the Institute participant, and hold the potential for further growth on the part of the faculty member. Each project needed to have a significant technology component and employ best practices for teaching and learning. Finally, projects needed to enhance face-to-face teaching and focus on helping the participant transition from face-to-face to blended or distance teaching contexts.

Phase Three: Follow up, support, and closing session

Between August 2003 and May 2004, Institute participants were offered a number of short follow-up workshops and project consultations on an as-needed basis. Participants were also alerted to related campus services and events. In February, a half-day session was held that allowed participants to share their progress, get advice from each other, and continue conversations about enhancing teaching excellence with technology. Most were present in Calgary, but some participants attended via videoconferencing.

In May 2004, participants and guests attended the closing Institute session either face-to-face or via videoconferencing. Each participant presented the outcomes of their project, with emphasis placed on learning from each other. Participants reflected on where they had started, describing not only what they learned about the use of educational technology but also what they learned about teaching and learning. Discussion included identifying components of the Institute process that had been most helpful, and aspects of their own work that had been most important. Individuals talked about what they saw as "next steps" and, as a group, discussed potential "next steps" for the Faculty of Social Work as a whole. This contributed to the perception and feeling that neither the Institute collegiality nor the learning process was over. This "closing" day was just part of the process – not the end.

Sample Projects

The scope of the Institute was such that a description of participant projects as a whole is impossible. We offer a brief description of three projects to provide a general idea of the types of activities undertaken by Institute participants.

One Institute participant proposed to use student interest areas to guide his clinical course while incorporating inquiry approaches and using digital video. Early in the course, he asked students to identify situations in which they wanted to gain knowledge and skill. The students and instructor drafted scenarios, which they then discussed with professional actors (simulators) who helped them further develop the characters and scenarios. The actors played the part of couples in therapy, the instructor was the therapist, and the simulated therapy session was videotaped. The instructor then edited the tapes to embed the pertinent sections into a *PowerPoint* presentation, which also presented content on couples' therapy. The instructor could stop, start, repeat, and skip sections of video as he and the students pointed out therapy techniques and discussed alternatives. At the completion of this project, the instructor believed the process could be expanded to support a fully online course on therapeutic interviewing.

Another participant, who was already skilled in the use of various technologies, focused on active teaching. In the semester following the Institute, this participant incorporated a new, experiential activity into his classes on a weekly basis. These activities were drawn from two books: 101 Active Learning Techniques (Silberman, 1996); and Classroom Assessment Techniques (Angelo and Cross, 1993). He also adapted several of these activities to be done via *Blackboard* and/ or *Centra*.

A third participant wanted to see students more engaged with the content of her course. She planned to use online discussions to extend classroom discussion and encouraged students to select alternative products to replace the traditional final course paper. Even though she had no personal experience developing webpages, she offered webpage development as an alternative to final papers, and arranged for interested students to receive training in basic webpage development. Ten of the 11 students in her class elected to do webpages; they researched an area of interest and constructed webpages to convey their research findings. These pages will now become part of the course website.

Results ~ Institute Evaluation

According to Guskey (2002), professional development efforts can be evaluated on five levels. These levels move from simple (i.e., participant satisfaction) to complex (i.e., organizational change), and build upon one another to provide a well-rounded, multi-dimensional understanding of the impact of the development effort under consideration.

Participant satisfaction

Feedback began during the pre-institute conferences when participants commented to the facilitator on the Institute design and helped shape the agenda timeframe and topics. This level of formative evaluation continued through the duration of the Institute, with daily checks made to see how participants were feeling and to determine what needed to be altered. At the end of the kick-off phase, there was an excitement about what had happened and what was to come. More than one participant commented that it was the best professional development experience they ever had. Following the Institute, participants completed an anonymous survey online. Generally,

the institute was considered to be a success. Participants reported they had learned a lot, were given plenty of choice and were excited by the opportunity to learn and converse in an atmosphere of support and collegiality.

Participant learning

At the May 2004 closing meeting (Phase 3), participants demonstrated their projects and outcomes, which then became part of the evaluation and feedback process. Approximately half of the participants had completed their projects and were able to deliver comprehensive presentations. Some advised that they had not completed their projects, but were able to provide an update on what they had accomplished to date and indicated when they would finish. Two participants told us that they had not accomplished very much and explained the reasons for that. A handful of participants in the last two categories – uncompleted projects and not accomplished – volunteered to forfeit their reporting time to others. While time adjustments were made to allow more time to those who had fully completed their projects, the facilitator asked everyone to present work to date and share their reflections on that work. We believed this approach was needed to maintain a community of learners who felt responsible to each other.

All participants, in order to claim their final stipend, were required to submit a brief written report including their own assessment of how their project work met the required project characteristics. Generally, participants were deeply reflective and insightful in their reporting, noting accomplishments as well as what they felt were short-comings. Themes that emerged were:

- Need for further practice with what they had learned and initially implemented
- Focus on teaching strategies (a number of participants commented that this had been one of their first opportunities to really think about and discuss different ways of teaching)
- Belief that they would continue to use technology more, and in a more effective manner
- Willingness and enthusiasm on the part of many to employ blended learning techniques in their courses
- Appreciation for the community of learners

One participant stated:

> "*I found the Blended Learning Institute to be a highlight of this past year, for a number of reasons. In general, I believe the Institute served as an open and safe platform from which faculty members could discuss their own development in using technology in the classroom. More importantly, the excitement that one could feel when we shared learnings was tangible. It was possible to literally feel the sense of accomplishment and plans for future development on the part of faculty members*."

Organization support and change

This aspect of evaluation focuses on the effects of the professional development effort on the host organization (Guskey, 2000). Potential impacts include change to the climate and procedures of the organization. Organizationally, the institute provided a vehicle to develop teaching capacity

required for the Faculty to deliver its Leadership Masters of Social Work online (the first cohort graduates in 2006). The Institute also contributed to development of support in the Faculty for the creation of a new director-level position dedicated to e-learning and distance education. Plans for a Bachelor of Social Work degree program, delivered primarily online with some face-to-face components sparked interest for a two-day session held in October 2004. The program, focused on rural, remote, and Aboriginal practice, has since been developed and began in August 2005. At the time of writing, a Clinical Masters of Social Work in a blended learning format was in the planning stage. These are examples of the Institute's direct influence on capacity and disposition in the Faculty of Social Work.

Conclusion

The Institute, spanning almost a year and a half, from initial interactions to final project implementations, was deemed highly successful by almost all participants. Individual faculty members improved both their teaching repertoires and their technology skills. Significantly, the Faculty of Social Work developed the capacity to deliver entire programs online. The Institute accomplished what it set out to do using a faculty development process grounded in best practice as confirmed by decades of literature. We nonetheless saw room for improvement and identified what could have been done better and what should be done next.

The feeling of excitement and community that was so palpable in the hours, days, and weeks following the Institute is no longer so acute. The community is not as connected and working together toward the same purpose. It did come very close, however, to being a community of practice, though unfortunately, it is not one now. Nonetheless, many participants continue to grow and develop in the ways the Institute supported; small clusters of colleagues do share resources and insights with each other, and the Faculty of Social Work continues to improve programs and develop new ones – but the fact remains that it is not a community of practice. Wenger and colleagues (2002) describe communities of practice as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 4). "What makes [communities of practice] successful is their ability to generate enough excitement, relevance and value to attract and engage members . . . nothing can substitute for this sense of aliveness" (p. 50).

At the conclusion of the Institute, participants suggested that another one be held. They said it did not have to be on blended learning; it could be on a different topic, such as globalization or diversity for example. They advised that the process had been influential and important, and they wanted to keep it going. Unfortunately, there was no structure in place to support a continuation of the process. We were focused on the goal of achieving the capacity to deliver online and blended programs, not on sustaining the "aliveness" that the Institute nourished.

Wenger and colleagues (2002) outline seven principles for designing to evoke aliveness:

1. Design for evolution: Combine design elements in a way that catalyzes community development. Attend to physical, social and organizational structures

2. Provide for open dialogue between inside and outside perspectives

3. Invite different levels of participation

4. Develop for both public and private community spaces. Nurture interconnected relationships between community members, including day-to-day, one-on-one

exchanges. Support a community coordinator to drop in on members, call or email to discuss problems, link to resources, etc.

5. Focus on value

6. Combine familiarity and excitement

7. Create a rhythm for the community (Wenger, et al., 2002, p. 51)

The Institute did all of the above; and the later professional development activities accomplished all but two of them. Although there was a coordinator for the Institute, there was no ongoing community coordinator and no one worked at sustaining the rhythm of the Institute after it formally concluded. This shortcoming points to the much needed next step: a community coordinator focused on supporting and maintaining a rhythm for several communities of practice, some within the Faculty and others that work in interdisciplinary communities with members of other faculties. Ideally, all should be focused on improving teaching and learning from different aspects and different content perspectives.

Recommendations
How can this work in distant and open institutions?

Professional development in line with the approach described in this paper may well be a vehicle that allows institutions of higher education to truly become learning organizations through communities of practice. By leveraging current and emerging technologies, communities of practice can cross the time and location barriers that exist in open and distance universities. Interactions can occur in asynchronous formats like online discussion forums and email. Others can occur synchronously via telephone, videoconferences, or via audiographic conferencing tools such as *Elluminate* or *Centra Horizon*. Still others can take advantage of face-to-face events, such as conferences and institutional meetings, to gather community members together.

Presumably, people in open and distance education organizations know how to teach effectively online or at a distance. Many of the same strategies known to be effective in teaching and learning online can be used to facilitate professional development programs that support communities of practice with a focus on continuous growth and development of teaching. The following is one scenario that can be used to implement the approach to professional development described in this paper in a distance or open university context:

- Assemble a small team to plan and coordinate implementation. Include people who understand and can represent the needs of the instructors in the field, as well as the needs of the organization. Also include those who are skilled professional development facilitators. This team need not be located in close physical proximity, but must clearly define roles and commit to regular and purposeful communication.

- Secure administrative support for the process, including the consideration of resources and incentives to participate. Many instructors may be intrinsically motivated to participate, but if the current culture does not place a high value on professional growth and community, and does not reward or recognize excellence in teaching, the incentives may have to be extrinsic to start (i.e., stipends, travel to conferences, resources, etc.).

- Care must be taken to invite participation in a way that is part marketing, part welcoming and encouraging, part challenging and yet honest and transparent. There should be no

hidden agendas, no unrevealed requirements or expectations. Invitations to join the community should set the tone and be issued in many formats. While emails and hardcopies offer one way, take the opportunity to connect in more personal ways. Where possible or practical, make phone calls and personal visits. Using a brief audiographic presentation (e.g., *Breeze* or *Captivate*) or an audioconference recording (e.g., *Elluminate* or *Horizon Live*) or video (podcast) will add a human touch.

- Lay the foundation for community building by involving participants in some aspects of the planning: ask them to reflect on their interests and needs; provide options for participants to select from, or to rank, according to their preference; involve them in narrowing down timeframes for events; and ask them to identify objectives for their own participation. This kind of professional and collegial negotiation will assist planners and assure participant investment. Use a mix of methods such as online surveys to assess needs and interests, online discussions, and videoconferencing to clarify expectations, roles, and responsibilities. Consider conducting the planning process through a blog or a wiki, wherein anyone interested can view and comment on the process. Gentle email reminders and recognition of contributions will keep attention on the process and encourage participation.

- Remember to plan for, and allow, different levels of participation during all phases. Establish a few minimum standards (e.g., respond to invitation by a certain date, complete the initial survey, etc.) for which planners will work hard to reach 100 percent participation. For other activities, such as viewing and contributing to the planning blog or wiki, encourage participation, realizing that some instructors will have the time and interest, but others will not. Continue this mix of base-level requirements to be part of the process, along with activities/ tasks that are strongly suggested and those that are optional. This will foster a shared sense of responsibility among planners and participants.

- Faculty development activities can be designed and delivered in several ways; again, a mix will make activities accessible to more people. Some ideas and information can be presented in the form of readings and audio, audiographic, and video presentations. Employ strategies that encourage participants to think critically about the presentations, discuss them with colleagues, and apply what is appropriate to their own teaching practice. Online discussion forums provide a way for participants to post reflections and engage in thoughtful discourse, but combine this with synchronous sessions (audio, audiographic, or video conferencing, or even small group face-to-face sessions where some participants are within reasonable travel distance from each other).

- Development and application of knowledge and skills occurs when faculty are able to practice. Facilitate the design and implementation of individual and small group projects in which participants try out new knowledge and skills, reflect on the results and then design ways to improve even further. Help participants employ effective methods for reflective practice, action research, and scholarship of teaching. Perhaps most important for community development is designing, facilitating , and supporting ways for faculty to share what they are doing and what they are learning with each other. Provide templates to make project design an easier process. Create ways for participants to learn about each others' projects and to ask questions and offer suggestions. For instance, divide the participants into small groups and post their templates to a discussion board along with several specific questions they would like colleagues to respond to regarding their project.

- Plan for a number of synchronous sessions throughout the process. Hold an audio conference with small groups after they have given feedback on project plans. Later, conduct an audiographic or video conference session in which each participant presents a few slides to bring the group up to date on the project implementation, talking briefly about what is going well and what challenges they are finding. Ask participants to think together to help each other, keeping the dialogue between participants, as much as possible. The idea is to help the participants connect with each other rather than relying on an outside expert or facilitator. These sessions will build a sense of mutual support and connectedness.

- Culminating events are important to celebrate achievements and progress, to signal the close of a segment of a journey, a milestone of sorts, and perhaps to mark the beginning of another. Again, a combination of methods will offer greater access. Take advantage of any opportunity to meet face-to-face such as meeting the day before a major conference or meeting that most people plan to attend anyway. But it is also possible to construct a combination of synchronous and asynchronous online events that can do the trick. Online "poster sessions" are easy to conduct, as are presentation sessions and discussion sessions. We have even seen online wine and cheese receptions.

- Depending on the size of the institution or department, the process might start small and grow or provide for several different groups/ processes running at the same time, but focused on slightly different topics or disciplines. For instance, some communities might develop around investigation and action research on assessment strategies for courses heavily reliant on inquiry approaches. Others might focus on effective use of new and emerging technologies and applications like wikis, podcasting, social bookmarking, or mobile technologies, in general. Still others may look deeper into how to make learning activities more authentic and relevant. Whatever the specific focus, the overall goal should be for every individual to learn, to share that learning with colleagues, and to apply the learning to improve their teaching.

While the Faculty of Social Work's Blended Learning Institute was not designed to produce formal research, we are of the opinion that it is a logical next step. We would welcome the opportunity to work with others to design similar projects in the future, especially one tailored for an open and/ or distant environment.

In conclusion, through providing a blueprint for implementing our approach to professional development in a distance or open university context, this paper attempts to show that effective faculty learning and development can happen and it can happen at a distance. A core criterion for an effective faculty development process is that, through the act of participating, faculty perceive greater connectedness to a community of practice that encourages, engages, and supports them in their teaching practice. As Senge (1990) points out, "When teams are truly learning, not only are they producing extraordinary results but the individual members are growing more rapidly than could have occurred otherwise" (p. 10). Critical factors for success, whether in face-to-face or online environments, lie in effective design of the teaching and learning environment, facilitation, and support of the process and, underlying all of this, commitment to the goal of developing communities of practice and learning organizations by those in decision making roles.

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International Review of Research in Open and Distance Learning

Volume 7, Number 2. *ISSN: 1492-3831*

September – 2006

Book Review – Education and Health Structure: An overview

Editor: P. Nair (2005). 226 pages. Paperback. Punjagutta, Hyderabad, India: The ICFAI University Press. ISBN 81-7881-747-0

Review by: Sherri Melrose, Assistant Professor, Centre for Nursing and Health Studies, Athabasca University, Athabasca, Alberta, Canada.

Education and health structure: An overview, edited by P. Nair presents a series of articles on health and education infrastructure. These articles are written by authors from India, Korea, and Singapore and examine health and education delivery systems and policy frameworks. While these authors do refer briefly to European and North American systems, the focus is mainly on India and South Asia. My key critique of this work is with the title. Without clearly identifying that the focus of the writing is on health and education in India, the reader is initially left wondering where the structures are that the book seeks to overview.

However, while the authors target India and other developing countries, the issues raised are remarkably similar to those in North America. And, some of the projects suggested may offer insight to professionals outside of India. For example, discussing educational infrastructure in India, Sivaram Mallela called for re-engineering processes within institutions to accommodate more cost effective solutions such as distance delivery systems. Models could include a campus-based institution that uses the internet for distributed learning, a mixed mode institution that operates in both a physical and virtual environment, and an institution that operates in a completely electronic environment offering programs as well as teleconference and videoconference sessions.

Discussing the financing of higher education, Deepak Kumar argued against state funded institutions and identified the world-wide trend of self financing. He stressed the role of private-public partnerships and posited examples such as subsidized loans, student grants or vouchers, and private sector donations. In his view, more opportunities for synchronizing higher education with the job market are needed.

In vocational and technical training, Law Song Seng considered the practical challenges involved with vocational technical education and training (VTET) and presented an interesting study with participants from Switzerland, Japan, the United States, and Singapore. Conclusions from the study included noting that VTET has a "less than positive image" across societies and countries and expressing "concern about whether sufficient attention has been paid to those who need and can benefit most from VTET" (p. 59). Emphasizing how his own technical education institution in Singapore built up a positive public image and brand name, Seng identified that key ingredients for success were strong governmental support, right policy decisions, effective governance structure, stakeholder support, community partnership, management leadership, and staff commitment.

Two examples of Web-based systems for teacher training through distance learning are presented. Creating cost effective upgrading programs for hundreds of thousands of primary and secondary

school teachers from different geographic areas is challenging. In Kerala, India, K. R. Srivathsan described the launch of Edusat, an emerging Broadband connectivity and development in Technology Enhanced Learning and Teaching (TELT). In Korea, where all schools do have government financed internet connections, Insung Jung described the launch of a training package that teachers could access easily from their classrooms.

The education section concludes with a discussion about the usefulness of a Benefit Incidence Analysis (BIA) of public education and health spending by Hamid Davoodi, Erwin Tiongson, and Sawitree Asawanuchit. The findings suggest that "overall education and health spending are poorly targeted; benefits from primary education and primary healthcare go disproportionately to the middle class." The analysis also showed that "countries with a more pro-poor incidence of education and health spending, tend to have better education and health outcomes, good governance, high per-capita income, and wider accessibility to information" (p. 112).

The health section begins with a review of a book which provides strategies for developing countries to work with private sector providers to achieve accessible healthcare, particularly for the poor. Next, H Karnick proposes a Balanced Healthcare Complex Model (BHCM) that is geared more to preventing than simply diagnosing and treating disease. The BHCM addresses issues India faces such as shortages of professional staff, limited access for rural patients, and a specific need to improve the health and education of women. The model recommends the inclusion of mobile units equipped with computers and diagnostic devices that could travel directly to rural villages to balance the existing public and private hospital buildings in urban centers.

Then, Surya Pala discusses a case study in India illustrating telemedicine, where patients can be examined, monitored, and treated by a physician from a distance. The importance of humanizing technology to prevent patients from feeling detached and virtually presenting physical data to physicians in the absence of face-to-face seeing, hearing, and touching are noted. Issues of the high cost of the technology and patients' preference for face-to-face interaction were identified.

Finally, the book concludes with a synopsis of a European study on standardization issues in e-health. The focus of the study was to seek ways to achieve interoperability based on standards and to facilitate cooperation between member states. Recommendations centered on using technology to establish a Europe wide platform for standardized systems of record keeping, certification, and information dissemination.

In summary, this edited book does offer a picture of education and health infrastructure. However, the picture is more of a snapshot than an overview, and the work clearly focuses on the India experience. An important strength of the book is how the editor, P. Nair, extends our existing definition of 'infrastructure' to include frameworks that guide health and education systems. The contributing authors all provide illustrations of how technological innovations can be woven in to existing health and education delivery systems to strengthen services. These illustrations are useful and creative responses to systems that often seem ineffective, and they will appeal to an international audience. The book will be of particular value to leaders in education and health who are interested in comparing different delivery systems.

International Review of Research in Open and Distance Learning

Volume 7, Number 2. *ISSN: 1492-3831*

September – 2006

Technical Evaluation Report

57. Portable Applications in Mobile Education

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Abstract

Portable software applications can be carried on a convenient storage medium such as a USB drive, and offer numerous benefits to mobile teachers and learner. The article illustrates the growing field of 'portable apps' in reviews of seven contrasting products. These represent the major categories of document editing, email maintenance, Internet browsing, instant messaging, file transfer, multimedia presentation, and anti-virus protection. Emphasis is placed on ways to use 'portable apps' to overcome the common problems of Internet usage during travel.

Introduction

Mobile teaching and learning have become easier with the development of portable applications. 'Portable apps' allow the user to move between different computers without having to install the most regularly used programs on each of them. Email, browser favourites, file transfer, and other functions can be accessed without the need to configure the new computer for them. When users are travelling, and are dependent on unfamiliar computers and Internet connections, such reconfiguration can involve an expensive use of time, if it is permitted at all. Portable apps, on the other hand, travel with the user. Stored on a convenient medium such as a USB drive, they are instantly accessible when the drive is plugged into a computer's USB socket. One can also store them on a CD, though usually without the advantage of being able to change their settings and to store new files on the drive as the software is used.

Several comprehensive listings of portable apps have recently become available, covering major functions including document editing, instant messaging, Internet, networking, and security utilities, and multimedia presentation. Wikipedia and Portableapps.com currently list several hundred portable apps in over 50 categories. These resources have been frequently valuable to the writer in the course of a tour of a dozen Asian countries, during which he has needed to maintain communication with colleagues, students, and family members from a series of hotel rooms, airports, and Internet cafes. A selection of portable apps on a USB 'pen drive' allows him to do this without even plugging in his laptop. The experience feels rather like being a cuckoo in other bird's nests, plugging one's portable drive into their USB ports, and moving on without leaving any trace on their systems. The following trials cover seven types of portable software, and indicate the products' merits and disadvantages as mobile education tools. Collectively, these seven products occupied just over 100 megabytes on the evaluator's 250-mb memory stick,

leaving plenty of space for document and email storage. Each of the products tested can be downloaded from www.portableapps.com.

Product Trials

1. Abiword: Numerous document editors are available as portable freeware, notably including the Writer program contained in the portable open-source package, OpenOffice. To use any one of OpenOffice's tools, however, one must load the whole package, which at 177 megabytes can occupy more space on a USB drive than is available. At just 15 mb in size, Abiword is a more economical alternative, with a comprehensive set of document-editing routines, and a look-and-feel almost indistinguishable from MS-Word. The software loads and saves files in the .doc, .dot, .rtf, .txt, .htm and .html formats, as well as in its own .abw and .awt formats. Users can expect to lose the page-formatting of .doc files when moving between MS-Word and Abiword; and a file created in Abiword will not load in Word unless one remembers to save it in the .doc format before storing it or sending it to others. Abiword's portability, however, makes it a useful alternative to Word, allowing the user to prepare and modify reports on multiple computers, independent of the software installed on them.

2. Thunderbird: The portable version of this popular Mozilla email software is one of the most useful of the applications tested, owing to the rapid access provided by its pre-configurations to one's regular mail servers. In using a laptop at public-access Internet connections, it is commonly easier to receive email than to send it. Re-configuring the email software on a public-access computer may be difficult or not allowed; and forgetting to erase the configuration allows future users to access one's email. (There is, of course, an equally serious need to protect the portable drive from being lost, or the same could happen . . .) A solution to the problem of re-configuration is to access one's email through an Internet browser, if the account has a webmail interface. This is usually a cumbersome and time-consuming procedure, however. With incoming and outgoing email server configurations constantly available on a portable drive, speed and flexibility are greatly increased. Thunderbird sends and receives email from multiple POP and IMAP accounts as soon as the portable drive is plugged into the USB port. The email can be saved on the portable drive, but when the space on it is limited the stored email must be regularly deleted. If one is inclined to save large amounts of email, it is useful to use a portable application for rapid email checks, while leaving it on the server for later downloading onto one's regular computer. Otherwise, one can configure the portable software to delete each item from the server as it is downloaded to the USB drive, as a useful means of preventing the external server from becoming overloaded by spam during lengthy travel periods.

3. Mozilla Firefox: The advantages of portable Web browsers are debatable. They provide the obvious advantage of having one's regular browser bookmarks permanently available; but it is not as though Internet Explorer were not installed on most public-access computers already, offering greater familiarity and flexibility. The mobile user can conveniently store bookmark favourites on an external server for access on different computers, and may have little need to load a portable browser such as Firefox from a portable drive. As an open-source software, on the other hand, Firefox is rapidly becoming a viable alternative to Internet Explorer, thanks to its active development community; and it may soon gain an advantage.

4. Gaim: Even those who do not regularly use instant messaging tools can find them valuable while travelling. The Internet kiosks and airport lounges of five continents seem to offer MSN

and Yahoo Messenger as a matter of course, and access to one's contacts list is as simple as entering the account password. The current versions of these two leading tools have added an integrated address list facility preventing the user from having to install both products in order to communicate with those contacts who only use one of them. The portable Gaim software provides the same advantage, by logging simultaneously onto these and other popular messaging tools such as AIM, ICQ, and Jabber. A major drawback of Gaim is that, when it is used as the interface for these services, the full range of their audio and video features is not available. Currently, Gaim requires a smaller download than its major competitor, Trillian (reviewed previously in this series), and it has fewer configuration options than its rival portable messaging product, Miranda. Gaim's interface and set-up are more user-friendly, however, and it is to be hoped that its developers will not fall into the trap of competing with other products by increasing its range of features, thereby reducing its simplicity of use.

5. FileZilla: For a mobile teacher or learner, portable file transfer protocol (ftp) facilities provide a more flexible and cost-effective means of exchanging reports, assignments, etc., than the more conventional email attachment method. A teacher who provides students with an online 'drop-box' can download their files directly from the server simply by inserting a portable USB drive containing ftp software such as FileZilla. Public-access computers cannot be depended upon to provide familiar ftp software, and the file transfer options provided by Web browsers are generally limited. Like most ftp products, FileZilla can be configured to log-in to multiple servers, and it can up and download files while the user is doing other tasks. On slow systems, it tends to drop the connection regularly, and to have problems handling simultaneous file transfers. When one needs to send the same file to multiple recipients, however, uploading it to a Web server using FileZilla and sending the download address to them by email, is fast and efficient.

6. VLC Media Player: For many teachers, a common reason for travel is to make a conference presentation. If one needs to present audio/ video material, one cannot assume that the computer at the conference venue will contain the appropriate media player. When using a portable player, however, one knows in advance that the material will be playable. The VLC Player supports the common .wmv and mpeg formats, as well as VCD, and DVD material, and the files can be played directly from the USB drive without the need to copy them to the conference computer. Having dealt with the problem of the media player in advance, a lecturer can use the limited time available before the presentation to concentrate on solving other problems of the typical conference environment: e.g., the need to reconfigure the computer to project video materials on the data projector, and to adjust the audio speakers.

7. ClamWin is a relative rarity in the software world, an anti-virus product that is portable, open-source and free. As such, it offers great promise for protecting the contents of one's portable drive from virus and spyware. At present, however, this particular product has a major disadvantage -- its inability to detect incoming viruses in real time. The files on one's system need to be deliberately scanned for infection to be detected, and even if the user does this regularly, an incoming virus may already have done its damage in the meantime. To rely on ClamWin as a reliable option for virus detection, therefore, would be dangerous; and of the seven products tested in this series, this is the only product that the reviewer has since uninstalled. Of the other five anti-virus products listed on the Wikipedia site to date, only one (Microworld AntiVirus) actually provides more extensive protection, and that in a relatively expensive 'corporate' edition. The field of portable, open-source anti-virus freeware clearly requires much development.

Conclusions

The portable applications field in general is evolving rapidly. With 2-gigabyte portable drives now becoming inexpensive, whole operating systems (e.g., Linux and Mac) can be installed on one's USB drive, making it easier to compare these options with the Windows alternative. As USB drives become standard not only in computers, cell-phones and PDAs, but also in the lighter sockets and arm-rests of aeroplanes and cars, the demand for portable software will increase. For mobile teachers and students, the flexibility and efficiency of communication and data transfer will expand greatly.

N.B. Owing to the speed with which Web addresses become outdated, online references are not cited in this report. They are available, together with updates to the current report, at the Athabasca University software evaluation site: http://cde.athabascau.ca/softeval/. Italicized product names in this report can be assumed to be registered industrial or trademarks.

Patrick J. Fahy, Interim Series Editor (Jon Baggaley is on sabbatical.)

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