EXPLORING THE POTENTIAL OF USING PODCASTS IN SUPPORTING DISTANCE EDUCATION STUDENTS

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ABSTRACT

Over the years, audio has been used in distance education to create a presence of a lecturer in the learning environment. These audio technologies were used for the purposes of complementing the existing print-based study material. This study seeks to explore how one of these audio technologies, podcasting was used to support distance students from the University of South Africa who are enrolled in a research proposal writing course. Data was collected through observations, questionnaires and interviews. Six audio podcasts were made available to all students. The findings suggested that most students used mobile devises to download podcasts and the majority of them reported that podcasting enhanced interaction through providing guidance and assisted them to pace themselves through print-based material.

BACKGROUND

The use of podcasting through mobile devices, such as cell phones, tablets, and smartphones, has the potential to assist distance education students to access lessons, assignments and feedback in the form of audio or video. Podcasting are digital files (usually audio and/or video) that are available for users to download from computers or portable devices. Anyone can create and upload the audio content for anyone to access and download from a computer or a mobile device. The availability of mobile devices makes it much possible for podcasts to be used on the move and as often as student wish. The benefits are that students are already familiar with the technology making it easy to use because it is versatile and inexpensive.

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This makes it "an attractive option for providing additional flexible learning resources" for distance students (van Zanten, 2008). This is even more critical in distance education where students often feel isolated from their teachers as facilitators of learning and their peers as supporters of learning.

Studying through printed media will remain one of the main medium of instruction in most distance education in developing countries such as South Africa. The pre-produced self-contained study material are developed with an explicit understanding that they facilitate access to learning especially to those people who live in marginalised, remote communities. Interaction in this context occurs when a student sends a completed assignment to the teacher who marks it and sends it back with comments and feedback. For many distance students, learning is a text or visual-only experience that removes them for a personalised learning process.

One of the major challenges facing distance education institutions is to provide support for "isolated students who are left to fend for themselves," (Brindley and Paul, 2004, 40). In this context, students are physically, emotionally and socially separated from the institution.

The distance education character of individual form of learning and the lack of interaction amongst students and teachers is a major challenge. Interaction, irrespective of whether learning is occurring in a contact or distance setting, is at the core of educational experience, according to Anderson (2010), and it happens when objects, events and people mutually influence one another. Without interaction, teaching becomes simply "passing content as if it was a dogmatic truth" (Anderson, 2010, 29.) and students on the other hand become isolated and eventually drop out. Moore (1993) believed that interaction between student and content; student and student; and student and lecturer should be encouraged and promoted regardless of how students are linked to the resources they require.

The successful enactment of interaction "rests on the philosophy of distance education which informs the decisions about techniques and technology" (Evans and Nation, 1989, 154). It is therefore important that distance education institutions exploit the affordances provided by new technologies to enhance teaching and learning.

To address this problem of interaction, distance education providers used other technological devices such as radio, television, audio-video tapes to support teaching and learning. The challenge is how distance education providers integrate these activities to enhance the learning experience for distance education students. New technologies such as podcasting provide unique technological attributes that could be harnessed to provide interaction and resources that support all areas of teaching and learning.

The University of South Africa (UNISA) like other distance education institutions has generally used printed study materials. However, in recent years, there has been a move towards using these new technologies to

support distance teaching and learning processes.

Technologies such as podcasts have been used in conjunction with printed material to supplement and support interactive pacing and prompting (Bell et al. 2007; Collier-Collier-Reed, Case and Stott, 2013); just-in-time instruction; self-check assessment (Scutter, Stupans, Sawyer and King, 2010) and problem solving and collaborative learning (Makoe, 2012). The idea is to add "that all-important human dimension to the textbook and the study guide" (Lee and Chan, 2007).

Several studies have shown that distance students are more receptive to acquiring material which comes in the form of voice via podcast than in the form of text in a study material (Durbridge, 1984; Evans, 2008, van Zanten, 2008). Students like to being talked through tasks; they prefer hearing facts and discussions from lecturers and they are encouraged "by the voice of someone they know and respect", according to Durbridge (1984). Over the years, audio has been used in distance learning to personalise learning and to create a presence of a lecture within the study material. The advantages of audio for education are its capacity "to impact cognition via clear instructions and touching the emotional aspects of the process of learning through immediacy and link to the teacher," (Durbridge, 1984). The use of audio for instructional purposes in distance education can be traced back to the 1920s where radio was used extensively to teach people who were either in the military or industry (Reiser, 1987). The reach and immediacy of radio provided a potentially powerful medium through which to support distance learners. Even then, Reiser (1987) argues that educational radio was used for the purposes of complementing the existing print-based study material. Later on, audio cassettes and CD Roms were also used as learning tools in distance education. The major distinction between these technologies and the new ones is that podcasts are easy and cheaper to create and can also be distributed quicker at low costs.

Despite the benefits, little consideration has been given to harnessing the affordances of these new technologies to deliver teaching and learning in distance education institutions. This study seeks to explore how podcasting was used to add a "human voice" to the print-based study material. Since students are already using podcasts in informal setting, it makes sense therefore that this study aims to explore how podcasts can be used to support teaching and learning in distance education. The idea is to use devices that are already available, accessible to students in order to develop ways in which they could be supported (Makoe, 2012). For the distance student, podcasting has a greater potential of reducing isolation-induced anxiety often associated with the correspondence nature of distance education (Lee and Chan, 2007).

Benefits of Podcasting In Distance Education

Several studies have shown that podcasting has been used successfully in adding a lecturers 'voice to study material in distance learning (Lee and Chan, 2007; Oliver, 2005; Sloan, 2004). Podcasting also facilitates self-paced learning, provides remediation for those learners who are self-paced, help those learners who have some disabilities (reading, for example), and 56

enriches the learning experience of the learners at advanced level (Sloan, 2004). Podcasting as a means of representation of diverse and plentiful experiences provides a viable opportunity of authentic representation, greater interaction, more powerful expression, and personal empowerment (King, 2009, 1649). The study by Oliver (2005) found that podcasting positively influenced collaboration among transnational students. In addition, podcasting is capable of improving learning through the reported increase in motivation and level of engagement among students.

Since students are more familiar with these devices, they are more receptive to acquiring learning material from these types of technologies than in the textbook or study material or a traditionally conducted lecture (Evans, 2008). A study by Woods and Keeler (2001), found that the use of audio recorded feedback by tutors when sending email messages increased students' levels of participation in various group activities along with fostering the given online community and boosting satisfaction with the experience of learning. Short audio clips in informal style are helpful while addressing the concerns and anxieties of university undergraduates in relation to the course and its assessment (Lee and Chan, 2007). Like audio cassettes that have been used in the past to add a voice to the study material, podcasting are now being used for the same purpose. All these studies attest to the fact that the use of audio in the form of podcasts are critical in supporting teaching and learning especially in distance education where there is very limited communication between students and lecturers.

Many higher education providers have used podcasts in a variety of ways. Some institutions have used podcasts as a complete substitute for face-to-face classes (Substantial), according to McGreal and colleagues. In some instances, podcasts have been used to provide summaries of what has been taught or used to clarify areas that they may not have been understood by students (Supplementary) (Bell et al. 2007; McGreal et al. 2009). Where podcasting was used to supplement study material in distance education, Lee and Chan (2007) found that it helped to reduce anxiety caused by studying alone in isolation.

In some instances, students were encouraged to create their own podcast as part of their school projects or assignments (Creative) (McGreal et al. 2009). Technological devices that are successful for teaching and learning in distance education are those that are generally available to people, according to Keegan (2005).

In his study of students' perception of podcasting use, Evans (2008) found that students considered podcasts to be efficient (in relation to time which is spent on a certain amount of material); effective (in terms how much learning has been achieved); engaging and easily received tool for learning.

While using podcasts, he also found that learners express less overhead related to looking for, locating, and downloading educational material (Evans (2008). Once the podcasts have been created and are ready for dissemination, they can be downloaded from mobile devices. 57

A valuable feature of these devices is their ability to share information without entailing additional costs; therefore the portability of these devices make access possible for all students (Scutter, Stupans, Sawyer and King, 2010). In their explanation and description of mobile learning, Kukulska-Hulme and Traxler (2005) use terms such as "spontaneous", "informal", "personal", "portable", "contextual", "pervasive" and "ubiquitous". These are all attributes that make the podcasting a very accessible tool in the dissemination of learning material in distance education.

One of the most important findings in the context of distance learning is that students appreciated listening to and receiving audio feedback from their lecturers (Sloan, 2004). All these studies indicate that "information received via one sensory channel is not processed and stored as well as information received from two, such as for example auditory and visual sensory" (Scutter, Stupans, Sawyer and King, 2010, p. 181). Therefore, feasibility of the podcasts usage, needs to be assessed within the parameters that affect the student's access to the devices (Madiope, 2013).

Hampering Factors

Despite the obvious benefits, there are concerns regarding the use of podcasting. One of the shortcomings of podcasting, according to Lee and Chan (2007) is that audio cannot "provide complex and/or detailed information that needs to be heavily processed and logically deconstructed …that requires substantial concentration" (90) especially if students are separated from a lecturer who may explain the concept in more than one way. The other hampering factor is that students may be familiar with using podcasts in informal setting and therefore may find it difficult to move from informal to formal learning. The other concern is that if students have limited technical capability, it may prevent them from accessing podcasts from the host databases and portals (Belanger, 2005). Any technical glitches that may present themselves while students are accessing and operating podcasts may be a problem for students who are unfamiliar with using this tool for learning (Edirisingha, Salmon and Forthergill, 2007; Tynan and Colbran, 2006). In addition, sufficient bandwidth is needed if students wish to download files (either audio or video ones) which are rather large (Boulos, Maramba and Wheeler, 2006). This may be extremely problematic for UNISA students who live in remote rural communities where access to bandwidth is limited and in most cases not available.

Another hampering factor is that some university lecturers are reluctant to integrate innovative technologies such as podcasting into their teaching material because they lack skill or knowledge on how to use these new tools. Also, there is no general agreement among lecturers as to whether podcasting is simply an innovative mechanism for material review or a new method of knowledge construction (Roschelle, 2003). This is even much more pronounced in distance education where some academics view these new technologies as a fad that will pass with time. Most of them are comfortable with their old ways of teaching which are based on print-based courses with little or no integration of technology (Makoe, 2012). 58

Studies have shown that the successful implementation of new strategies of teaching and learning depends on the lecturers' willingness to adopt and embrace the new technologies.

Some researchers have argued that the use of podcasting may lead to students disengaging with the study material while focusing on the audio facility (Scutter, Stupans, Sawyer and King, 2010). This perception may be stem from the influence of the constructivist view on staff perceptions, which maintains that deep learning occurs when a student is actively engaged in learning (Scutter, Stupans, Sawyer and King, 2010). However, this notion is disputed by other researchers who argue that listening is an active, creative and demanding process of selecting and interpreting information from auditory clues and therefore students cannot be passive (Sloan, 2004; Wood and Keeler, 2001).

Theoretical Considerations of The Use of Podcasting

Notably, the use of podcasts in learning is supported by various distance education theories especially those that deal with the role of interaction and communication in enhancing teaching and learning. Many theories who looked at the challenge of interaction in distance education agreed that students need to be supported both cognitively and affectively through mediated technologies intervention. An effective student support services in distance education should address student cognitive needs by integrating communication within study materials (Holmberg 2003; Tait, 2000). In his theory of guided didactic conversation, Holmberg (2003) argues that mediated conversation should facilitate the development of learning relationship between the lecturer and the student. The use of new technologies such as podcasts may assist in guiding the conversation within the study material.

What is critical in distance education is that students need to be supported cognitively, affectively and administratively, according to Tait (2000).   This can only be achieved through bridging the gap between the students and the lecturers. In this separation there is a "psychological and communications space to be crossed, a space of potential misunderstandings" between lecturers and students who are physically separated (Moore, 1993, p.22). It is in this space, that Moore (1983) describes as transactional distance, where the structure of the educational program and the quality of the interaction between the teacher and the student determines academic performance. Moore (1983) believed that interaction should serve a variety of purposes including encouraging communication between student and content; student and student; and student and lecturer. The use of podcasts in distance education has the potential to improve interaction between student and lecturer and amongst students themselves.

This shows that learning is a social process where students feel the need to communicate with their lecturers and other students. Lack of social interaction linked to self-paced study tends to lead to high attrition rates (Anderson, 2010). The solution to this problem is to stimulate interaction through technologies such as podcasts. Student to student or study groups 59

interactions tend to lead to higher academic achievements.

In addition students need to communicate with their lecturers on regular basis. Interaction between student and lecturer leads to the "the concomitant development of a learner's capacity to be self-directed and self-motivated" (Anderson, 2010).

In distance education, there is strong correlation between care and learner motivation, according to Simpson (2008) and this affects attrition and completion rates.

Affective support though motivation messages are even more important in distance education because students are often studying independently and alone. To keep students motivated, a lecturer should send audio messages through podcasts on regular bases. When students feel supported, they develop a positive relationship with their lecturers and the university and they find learning more pleasurable and this in turn supports their motivation continue with their studies.

Several studies have shown that distance students enjoyed and benefited from interactions with their lecturers (Anderson, 2010; Simpson, 2008).

Hillman, Willis, and Gunawardena (1994) argue that interaction should also include the concept of learner-interface. They believe that successful implementation of any interaction is dependent on student understanding of why they are using a particular technology in an educational environment and how they should use it.

It is therefore important that students understand why they are using podcasts in an educational environment in order to interact successfully with content, lecturers and peers (Makoe, 2012). High level of interaction, according to Anderson (2010) require different actors within the learning process be actively involved in the interaction.

Since students are already familiar with using podcasts in informal contexts, they can be encouraged to use them in formal learning. The theory of informal and lifelong learning recognises the attributes of teaching methods that can be taken beyond the formal environment and used beyond the course-work period (Naismith, 2004).

Learning is affected by a learner's environment, and it has been shown by Naismith (2004) that learning is directly related to the comfort level in any given environment and situation. Informal learning may happen intentionally through taking parts in deliberate learning projects; and accidental through obtaining knowledge from observation, conversations, television, newspapers and the internet (Naismith, 2004: 3).

Within this approach, learning is embedded into an individual's everyday life, which stresses the value of mobile technologies and audio podcasting in particular.

These theories confirm that students can achieve effective learning by means of using a variety of methods that are meant to complement each other. Of importance to this study is the accessibility of the method beyond the use of print-based study material, and its ability to perform when used on the internet or on mobile devices. What this means in a distance education context is that students can now access teaching and learning via their mobile devices anytime, anywhere, in the palm of their hands (Kukulska-Hulme and Traxler, 2005) without relying on the postal services to deliver their study materials.

This is even much more appropriate in developing countries such as South Africa that has incessant problems with unreliable postal services, poor roads and infrastructure. Given this scenario, the question that needs to be asked is in what ways can podcast be used effectively to support distance students?

METHODOLOGY

To answer this question, three different types of data collection tools were used for different purposes. Observations were used to analyse the patterns of technology use (downloads of podcasts). Focus groups interviews were used to explore students' experiences and perceptions about using podcasts while questionnaires were used to collect students' background information on the use of podcasting.

Data was collected from students who enrolled for a post graduate course in Research Proposal Writing course. This course was chosen because many distance education were struggling with the process of writing research proposals. Second language speakers often struggle with conceptualising and writing for academic purposes and the podcasts were developed to encourage and support them as they go through their print-based study material.

Prior to the data collection process, six audio podcasts on research proposal writing were made available in MP3 format to students via the IONO website. These audio podcasts were easily downloadable from any technology including mobile phones. They short podcasts were meant to be accessed by all 310 students. However, only 282 students visited the website. An invitation to participate in the study was also sent via email to all students in the course. Of the 310 students who are enrolled for the course, 130 students indicated interest in participating in the study.

A questionnaire was then sent via email to 100 students. About 48 students returned the questionnaire and the analysis is based on the 36 who completed the questionnaire. The remaining 30 students who indicated interest in participating were asked to participate in focus groups. Only 13 out of 30 participated.

The findings of this study are therefore based on 36 students who completed the questionnaire, 13 who participated in focus groups and the 282 who downloaded the podcasts. Despite many attempts to encourage students to participate, it emerged that there was a small portion of respondents (7%)₆₁

that were not fully aware of the project.

However, a great majority (93%) of registered students downloaded at least one podcast. Figure 1: below reports on the number of downloads from July when the website went live to the 20 September 2012 when it was analysed and reported.

iono fm

Channel	Episode	Duration	Cover Date	Times Accessed
Research Proposal Writing Module-MPEDU91	Introduction	12 min	20 Sep 2012 8am	39
Research Proposal Writing Module-MPEDU91	General Orientation	12 min	20 Sep 2012 8am	9
Research Proposal Writing Module-MPEDU91	Research methods	12 min	20 Sep 2012 8am	8
Research Proposal Writing Module-MPEDU91	Theoretical Framework	11 min	20 Sep 2012 8am	8
Research Proposal Writing Module-MPEDU91	Introduction and background	13 min	20 Sep 2012 8am	8
Research Proposal Writing Module-MPEDU91	Literature study	16 min	20 Sep 2012 8am	7
Research Proposal Writing Module-MPEDU91	Qualities of a good proposal	7 min	20 Sep 2012 8am	6
		1 hr 26 m		85

Figure 1:
The number of podcasts downloads per topic
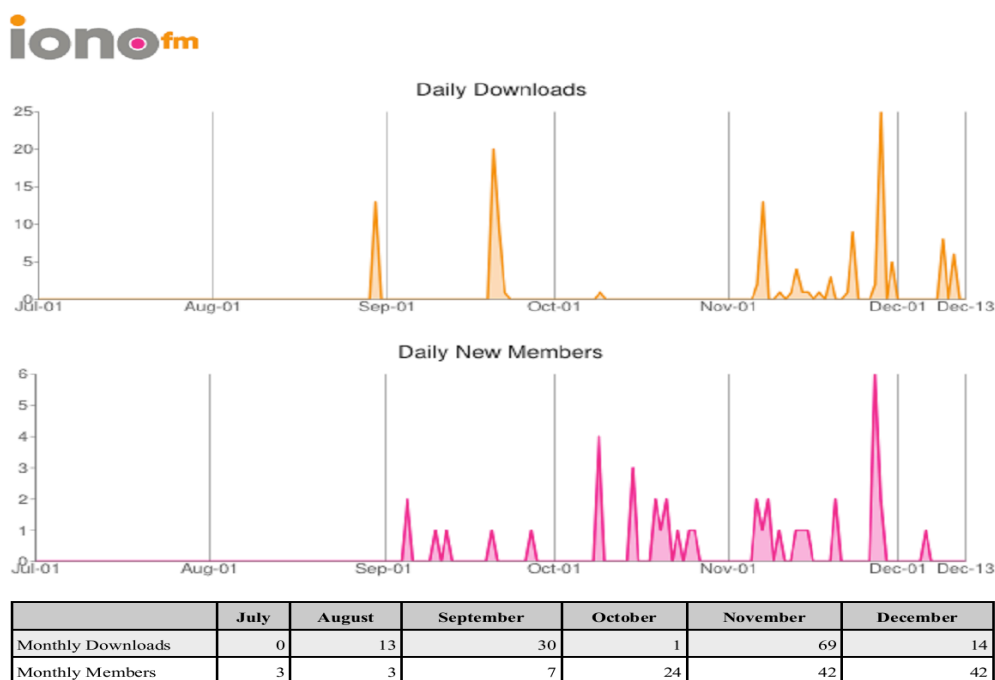**Observation of downloaded podcasts**

Students access to podcast website (IONO FM) was monitored to find out how often students visited the site.

FINDINGS AND DISCUSSION

A periodic reports on specific information on applications, downloads as well as feedback from students were received. While figure 1 above indicates the number of downloads, the graph below shows a breakdown of the exact use of podcasts as recorded by the data logger from the IONO FM. It also indicates how each individual podcasts was accessed. Although the programme started in July, it was only in September as shown in figure 2, that student's activities were visible. This was after numerous emails from lecturers encouraging students to download podcasts.

The number of downloads peaked again in the last week of October, just before the submission of an assignment. The highest hits were recorded end of November just before the examinations. Evans (2008) also found that podcasting tend to provide opportunities for revision hence the high hits before the submission of assignments and examination.

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According to the results from the IONO fm administrators, the rate of registration and access to the site improved over time and further cements the need for time to study and get used to the new method. As some students put it: "*the system is good but it would take a while to get used to*". The downloads from the website were evidently increased as a result of increased confidence for students who tried to use the postcats.

	July	August	September	October	November	December
Monthly Downloads	0	13	30	1	69	14
Monthly Members	3	3	7	24	42	42

Figure 2:
Six month report on access of the podcast and usage

Student Support

Although it is acknowledged that downloads do not necessarily reflect the degree to which students have used podcasts, 'podcasting may well be valuable support for distance students (Edirisingha et al. 2007). About 90% of the students recognised the importance of podcasts and saw it as a good support intervention for disseminating teaching and learning material. Since distance students are separated from their lecturers, they felt that podcasting helped them to listen to their lecturers as they were assisting them with difficult concepts in their course. "An effective student support service in distance education is characterised by personalizing the learning process through facilitating interaction "(Brindley and Paul 2004, 45). The majority of students - 88% of the sample pointed out that they had used the podcasts in preparing for their research proposal. The acceptance of this mode of delivery can also be attributed to the fact that some of the podcasts were based on role play through interactive sessions between the lecturer and the student who acted out the common misconceptions or misunderstandings related to the subject at hand. This assisted listeners to identify with the student who was asking questions and the lecturer who was responding.

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The students felt that this particular podcast supported them cognitively when the lecturer clarified some of the difficult concepts within the study material. One student said:

"I do think this (podcasts) helped in providing guidelines on how to write the proposal, because when there is no guidance and one become stuck, a person can decide to drop-out, such guidance will limit dropouts."

The role of a lecturer in distance education is to facilitate learning through asking questions, correcting misperceptions, offering assistance, and stimulating discussion. Students felt that podcasts helped in providing the "missing link" that is the voice in the study material.   Students reported that:

"I liked the lectures' voice and how she explained everything"

"The tone was loud and clear, the information straight to the point"

Improving Performance

In the self-report, 88% of the sample indicated that they believed that the use of podcasts can improve performance in the course. The ultimate measure for performance is passing a course or submitting well written research proposal having used recorded podcasts as a support tool. Although it is difficult to assess the impact of podcasting to student performance, according to Collier-Reed, Case and Stott (2013), is the submission of research proposals by the students who used podcasts. It signifies the ability of the podcasts to guide a research proposal writing student through the entire process and ensuring that indeed the proposal is received and accepted with a pass mark. A small percentage (5%) of those who used podcasts and not submitted may indicate a degree of challenges or hardships on the part of the student. In that case, it is evident that interventions of podcasts in supporting students have actually assisted a lot of students in preparing their proposals. However, these reported successes cannot be wholly credited to the use of the podcasts because there are many aspects of the learning context that influence performance (Collier-Reed, Case and Stott, 2013).

In this study, the impact of podcasting was measured in terms of enhancement of interaction (lecture's voice) as illustrated by the students comments above; and engagement with the print-based study material (self-pacing). Most of the students acknowledged that podcasts assisted them to pace themselves while encouraging them to start working on their proposal. Interactive pacing can serve both a social and an individual purpose. The former can be used to keep study group together and the latter can be utilised "to prescribe the speed with which content is prescribed and acted upon" (Anderson, 2010, 3).. A large-scale IMPALA project carried out in by five British universities also found that students benefited greatly from the use of podcasts, especially in terms of providing support in placing learning activities in desirable sequences (Edirisingha et al. 2007). This shows that podcasting can assist students in exercising better study habits while providing the much needed support for distance students.

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Access of Study Material

It was also encouraging that such a large section of the sample was able to access the material, considering the challenges experienced and the time restrictions of the study conducted. The majority (75%) of students reported that they used mobile devices to access podcasts.

This is not an unusual finding since most communities in Africa including peasant farmers, health workers, migrant labourers, rural extension workers are using mobile devices not only for communication purposes, but to carry out their daily business. The high costs of personal computers and lack of infrastructure for networked ICTs has lead to the rapid growth of wireless infrastructure in Africa. According to the 2013 GSMA report, the number of cell phones users in South Africa surpasses its population. There are 117 cell phones per 100 citizens, this means that a great number of people own more than one handset.

Most of those phones have features that enable people to take pictures, play music and games, watch videos, and browse the internet. A majority (80.2%) of South African internet users use cell phones to access the internet (GMSA, 2013). That's why many students in this study relied on mobile devices to download podcasts. About 92% of students reported that they are willing to invest in buying any mobile device that will assist them access study material quicker and easier. This is also similar to what Makoe (2012) found in her study with teachers who are distance students. Many of them thought that a sophisticated mobile device that is different from what they already own may help them with their studies. What they are not aware of is that their own cell phones may have all the applications that they need for their studies.

Today's high-end cell phones, according to Prensky (2004), have the computing power of the mid-1990s computers while consuming one-hundredth of the energy. However, a great a number of low cost cell phones have a variety of applications that can be used in education. Therefore it should not be difficult to exploit some of these available cell phone applications for education purposes. The portability, mobility and the availability of these devices make it possible for the students to report that:

> *"…the podcast is accessible any time anywhere. One can play it over and over again to get a clear understanding"*

> *...I accessed the material every time I wanted and felt the need to*

> *"It's like a guide that is available to you all the time otherwise it is frustrating alone"*

Another group of students highlighted the need to incorporate technology into learning. They reported that in instances where podcasting can be used to substitute print-based material, it can may make the process of learning more interesting. Student said:

"...Technology is moving away from print which is tedious to read and contributes to environmental degradation though cutting of trees."

"...I would recommend it because it is able to reach the intended students on time without the delays associated with other means of disseminating the material such as by ordinary post. Students, especially those in rural areas usually experience delays caused by ordinary post..."

One reason given for the real time interactions is that the questions asked are all addressed instead of having a portion answered while another is not. One respondent explains that even the students themselves can help each other through discussion groups. The respondent stipulated that:

"...technology is improving ... but I believe human support is also important so that we have a proper guidance by interacting through discussions."

However, it is not necessary that the podcasts should replace every existing methods of learning. Rather, it should create an aspect of flexibility in terms of convenience, a new way of reading but not a substitute for human interactive learning. The periodic visits by lecturers, for example, should remain and form avenues of settling queries that are not addressed in the podcasts. That's why a majority of students who participated in this study reported that they accessed podcasts through mobile devices.

The findings suggest that the use of podcasts as part of the study material encouraged communication, even if it was asynchronous and one-way. The lack of contact and limited feedback from their lecturers is of great concern for distance education students therefore any intervention geared towards enhancing learning is welcome. Most of them do not have the confidence to learn independently and a result they have trouble in navigating through study material on their own without support of their lecturers. To encourage communication geared towards supporting students, a variety of technologies such as telephones, computers, electronic mails have been integrated into the delivery of the study material to provide the missing interactivity (Galusha, 1997). Like students in van Zanten's, (2008) who believed that podcasting has "tremendous potential to assist in acculturating distance learners and aiding them in moving towards complete social and academic integration into institutional life," students in this study reported that that indeed the use of podcasting supported them cognitively, affectively and administratively.

Challenges with using podcasts

Although many students reported about the benefits of using podcasts, some students raised concerns regarding limited access to the internet due to weak broadband. As echoed from the statistics from IONO FM observation, it appeared that students did not have interest in the programme and those who got into it accessed it late in the course. In fact, they only started downloading material after numerous emails from their lecturers.

It was assumed that students will be excited about the intervention and just follow instructions as indicated. However, the response was not as expected even though students are aware and can use podcasts in informal social setting, they found it difficult to use it in formal education settings.

One of the challenges is the technical capabilities of users with regard to navigating the website on which podcasts are embedded. Another challenge is transmitting podcasts to mobile devices. If these challenges are not eliminated, they may turn off students from trying out new technologies for teaching and learning. The biggest challenge, however, it to come up with ways in which students and teachers can be empowered with the necessary skills in order to fully utilise the affordances of mobile technologies such as podcasting.

Some of the student expressed concerns in not knowing how to navigate through the website. A student pointed that "*…the podcasts play starts automatically even if not selected at times…*" Some of the students who complained are the ones who had problems with connectivity because of the signal strength of their mobile devices. The most troubled were students who did not have laptops and had to rely on public computers from internet cafes. Some used these computers to download files into their portable storage units like flash disks. However, they were concerned about viruses that they may pick up from public computers. It is known that the effectiveness of using podcasts is also engraved in the number of times the student would able to access the information. Scutter et al. (2010) also found that Second Language speakers appreciated the opportunity to re-listen to content several times. The ability to replay recorded files helped students to understand complicated things and facilitated listening comprehension.

IMPLICATIONS FOR PRACTICE

Despite the identified challenges, podcasting has been found to be a learning tool that offers simplicity, comfort and saves time. While it was noted that a good number of students have mobile devices, they still relied on laptops or computers to download podcasts. This shows that students still prefer to use laptops and computers for learning purposes. The adoption of using these new technologies relies on the level of awareness students have in using new interventions for teaching and learning. The awareness campaign of the product should address issues around how to access and make the most of the product. There should also be a parallel process where a recording of frequently asked questions is made available on cell phones so that students can listen in and follow instructions.

In addition, students have to be held by the 'hand' right from the start when a student registers on the websites hosting the material. The downloadable audio instructions should help students to navigate through the website, download the material and be taught about the available settings and configurations that can be used to download podcasts. That implies that probable set up of assistance or help desk for conveying such information

and skills to the student is needed in addition to running campaigns.
The other consideration may be to integrate podcasts lessons into the print based study material through asking student to use both text and audio.

The findings of the study shows that of mobile technologies such as podcasting has a great potential to enhance interaction and provide the much needed support for distance students in developing countries such as South Africa. It therefore, important that distance education institutions need to look at other ways that can be used to facilitate support systems that are responsive to students needs and context-specific. As the study has showed, the current print-based operation of the programmes has been a source of frustrations for many students. The solution lies in coming up with ways to enhance interaction and support distance students as they are going through their learning journey.

BIODATA and CONTACT ADDRESSES of the AUTHORS

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