Integrating MXit into a distance education Accounting module

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Abstract
Technology, when used appropriately, can assist with high-quality learning and teaching. This article describes the design and implementation of MXit (an instant messaging application) as a tool intended to assist Accounting students at a distance education institution in South Africa. This educational design is underpinned by constructivist theories on the use of technologies to assist students in distance education environments. For the purposes of the study on which this article is based, students in the second-year Accounting module FAC2602 were invited to make use of MXit to communicate with their lecturer during the day, at night and even over weekends during 2008 and 2009. This article reports on the perceptions of students on the use of MXit. Results indicated that students not only found MXit helpful, they also enjoyed the intervention. The findings and comments of both students and lecturers may assist in planning similar interventions in other modules.

INTRODUCTION
Is MXit just a hype among most South African teenagers, or is it here to stay? Since its launch in 2005, MXit has attracted more than 15 million users in the developing world, including six million in South Africa (Heunis 2009). MXit is no longer only used for communication among teenagers; the use of MXit as a medium for children to learn in a fun and interactive manner is beginning to surface in South Africa. In 2009, the South African Department of Education launched a pilot project using MXit to deliver Mathematics tutorials to 260 Grade 10 students from six selected schools in this country (Vecchiatto 2009).

Educators at distance learning institutions are constantly challenged to increase the effectiveness of their teaching. Student support at distance education institutions has existed for decades, and research has established that students’ success and the success of the institution depend not only on the quality of the learning package, but also on the quality and scope of the support given to students (De Lange, Suwardy and Mavondo 2003, 1–14; Joshi and Chugh 2009, 1–10; Kukulska-Hulme and Pettit 2009, 135; Mildrad, Spector and
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Davidsen 2003, 13). Heydenrych (2009, 34) is of the opinion that the complete learning experience of distance education students is still dependent on sufficient interaction between student and educator. O’Rourke (2009, 8), however, warns that distance education requires considerable planning to arrange student support, and that educators should be flexible and reinvent themselves. The dawn of the mobile revolution has changed the nature of distance education, making it possible to teach groups as well as individuals face to face at a distance. Globally, there is currently a rapid rate of development and application of wireless and mobile technologies in contemporary learning environments (Zawacki-Richter, Brown and Delport 2007). The central concern of distance education pedagogy is to bridge the distance between students and the institution. Mobile learning now provides possibilities for closing the gap between students and educators. The mobile revolution of the late 1990s is changing the profile of the distance student from someone who chooses not to go to university, to someone who not only chooses not to go to university, but who is also moving at a distance from the university (Keegan 2000, 152).

Higher education institutions use mobile devices to provide their students with information about timetable changes, assessment deadlines and other urgent administrative details (Keegan 2005; Traxler and Leach 2006). Research by Barker, Krull and Mallinson (2005) confirms that wireless technologies in education also have an impact on motivation, which results in benefits for students. Zawacki-Richter, Brown and Delport (2007) believe faculty educators should be innovative in considering the possibility of adopting mobile learning, as mobile technologies afford new opportunities for teaching and learning.

With regard to the use of technology in distance education, Collis and Moonen (2002, 217–230) state: ‘You can’t not do it.’ Higher education can therefore no longer avoid exploring the educational potential of mobile devices. The second-year Accounting (FAC2602) lecturers at the University of South Africa (Unisa) noticed that more and more young students register for MXit on their mobile phones and ‘talk’ to friends. An action research project started in 2008, to implement a strategy of using MXit on mobile phones to effectively communicate with FAC2602 students and to assist them in their studies. This instant messaging application was used to communicate with the students on a regular basis, to motivate them and to ensure that they receive assistance in time and at a nominal cost. Little research has been done on the use of instant message exchange in student support, and this article endeavours to describe the possibilities of using MXit to assist both lecturers and students. The article also reports on students’ perceptions of the MXit strategy applied in the action research project. The
results may assist in planning more effective learning interventions, which will have a positive impact on students’ distance learning experience.

LITERATURE REVIEW

Teaching and learning at a distance no longer comprise only the bulk delivery of print and written materials: it involves two-way communication between student and educator, and technology can now be used to mediate the necessary two-way communication. Studying without any communication with fellow students, not regularly attending classes and lacking contact with academic staff are some of the problems and difficulties students encounter when studying at a distance learning institution. Mobile technologies provide an affordable and easily accessible tool that lecturers can use effectively to assist distance education students in their studies. Not only does mobile support have the potential to improve students’ success rates and enhance the quality of the learning experience, but research by Pieri and Diamantini (2009, 193) confirms that students find mobile learning fun. Colley and Stead (2005) also confirm that students in mobile learning project trials have indicated that they not only enjoy the content, they love the collaboration.

Students’ departure from higher education institutions is not a new problem. Many retention efforts have been unsuccessful, due to an inability to understand why students drop out (Tinto 1998, 167). Astin (1997, 647) found that interaction with faculty and staff and a connection with the institution increase student satisfaction. Berger and Braxton (1998, 103–119) noted that students’ satisfaction has a significant positive impact on the retention of students. Freeman, Hall and Bresciani (2007, 755–770) are of the opinion that if institutions help students to feel connected academically, such students are more likely to persevere with their studies. Hurd (2000, 61–80) reports that for distance students the demanding nature of self-instruction, together with the shift of locus of control from educator to student, implies that only those students who maintain their level of motivation are likely to succeed. Hurd further states that demotivation among students is caused by factors related to the distance learning situation, difficulty in assessing personal progress and perceived inadequacy of feedback. According to researchers Moore and Kearsley (1996) and Simpson (2002), student support in distance learning plays a pivotal role in student success and completion rates.

‘Distance education’, ‘e-learning’ and ‘mobile learning’ are all terms relating to modern education. They denote an integration of information technologies and communication tools to support educational professionals in remote teaching (Shih and Hung 2007, 1; Traxler and Leach 2006). Mobile phone networks
extend to rural areas (Barker, Krull and Mallinson 2005; Brown 2004; Sharples, Taylor and Vavoula 2005) and allow people in rural communities to not only make phone calls, but also to make use of the advantages of mobile services (such as text and multimedia messaging). Mobile technologies enable people to communicate regardless of their location. Research has shown that by increasing the use of technologies in a student’s study package, the transactional distance between lecturers and students is lessened (Garrison and Anderson 2003, 104; Louw 2005; Macdonald 2008, 2). Dooley, Lindner and Dooley (2005, 263) see distance education as a vehicle to reach people in rural areas to improve their wellbeing and render assistance. Distance education in South Africa can be more effective and can benefit a larger number of students – especially those living in remote areas – if mobile technology is used effectively as a vehicle to reach these students.

BACKGROUND TO THE STUDY

Lecturers in the Department of Financial Accounting at Unisa conduct group discussion classes in the major centres in South Africa; however, less than 12 per cent of the registered FAC2602 students attended these classes during the period 2007–2009. The reasons for non-attendance varied from lack of interest to logistical concerns and difficulty in getting time off from work (Prinsloo and Van Rooyen 2007, 58). Contact between lecturers and students, which is therefore limited, consists mainly of telephone calls and e-mails. Distance education faces the challenge of redeveloping a culture of interactive teaching and student support (Heydenrych 2009, 22). With an average of 2 876 registered students per semester in 2008 and 2009 in the FAC2602 module, lecturers were hoping that MXit would enable them to reach more students more effectively.

Previous research found that almost 35 per cent of FAC2602 students were full-time students (Prinsloo and Van Rooyen 2007, 56). This means that most of the students are at work during the day, when lecturers are available for one-on-one assistance. Full-time students, on the other hand, cannot always afford to make expensive telephone calls to Unisa lecturers to help them with study material queries. Full-time students are mostly younger: in 2004, the age group 20–29 represented 46 per cent of registered students at Unisa, and in 2008 that percentage increased to 48.21 (University of South Africa 2008, 25). Research, however, has shown that almost 70 per cent of students registered for the FAC2602 module in 2007 were between the ages of 20 and 30 (Prinsloo and Van Rooyen 2007, 56). In 2009, the number increased to nearly 72 per cent. The fact that instant mobile phone messaging is extremely popular in South
Africa – especially among younger users – encouraged the FAC2602 lecturer to investigate the possibility of using MXit to assist students. An inexpensive, widely accessible and effective communication tool was needed to assist lecturers in providing student support; MXit could fill this gap.

As part of a broader strategy, an action research project was undertaken. This article reports on a section of this study, which focused on the perceptions of Accounting students on the use of MXit in terms of support given to them in their studies. Using a mobile phone to assist students is practical at Unisa, because currently more than 95 per cent of registered students have mobile phones (Van Rooyen, 2010). MXit is an inexpensive instant messaging software application, developed in South Africa, that runs on mobile phones using General Packet Radio Service (GPRS), and on personal computers (PCs). MXit allows users to send and receive one-on-one text messages. As messages are sent via the Internet and not via SMS, the network cost per message is one cent, while SMSes cost approximately 75 cents each. MXit has almost 23 000 new sign-ups a day and over 210 million messages are sent and received per day (MXit 2009, 1–9). Researchers from the Cape Peninsula University of Technology, who investigated the perceptions of tertiary students regarding the use of MXit in education, found that although lecturers almost never use the facility, it is definitely an opportunity worth exploring (Vosloo 2008).

**Design**

As a lecturer in the Department of Financial Accounting at Unisa, I wanted to investigate the possibilities of using MXit to communicate with my students. Not only would I be able to give students academic support after hours, I would also be able to use technology that students could afford and enjoy using.

After obtaining ethical clearance from Unisa, my action research project using MXit commenced in 2008. I communicated with my students during the day as well as at night. By reflecting and improving on the first 2008 MXit intervention, I could take action when necessary and apply these changes in the 2009 semesters. Convenience sampling was applied for this action research project. Students from the second-year Accounting module FAC2602 were chosen, because I was the primary lecturer on the module and could thus assist students on the different topics covered in the study material, which made it convenient for the purposes of the study.

The project entailed keeping a journal of the times, names of online students and conversations I had with students. In addition to the journal, various conversations were copied and saved. A short questionnaire was posted on myUnisa to establish whether students found the MXit intervention useful.
The MXit action research project in the FAC2602 module started in 2008. A Subscriber Identity Module (SIM) card, which securely stores the service-subscriber key used to identify a subscriber on mobile telephony devices such as computers and mobile phones, was purchased to obtain a unique mobile number to be used for MXit purposes. Registration for MXit mobile on a mobile phone was done first by opening the WAP (Wireless Access Protocol) browser on the mobile phone and typing in www.mxit.com/wap. After the MXit mobile registration had been completed, MXit PC was downloaded from http://www.mxit.com/mxitpc/ onto a notebook. This enabled me to communicate with students via MXit from my notebook.

MXit language is different from traditional English, as users make use of abbreviations. According to Hollands (2006), sending text messages has become the ‘cool way to communicate’ and the ubiquitous abbreviations and accompanying lack of punctuation now come automatically to many of the younger generation. Students made use of this language when communicating with the lecturer. Table 1 gives a few examples of certain abbreviations used in SMSes or MXit messages (SMS language).

### Table 1: MXit language

<table>
<thead>
<tr>
<th>SMS/MXit abbreviation</th>
<th>English word or phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>hw r u, hru</td>
<td>How are you</td>
</tr>
<tr>
<td>gtg, g2g</td>
<td>Got to go</td>
</tr>
<tr>
<td>n</td>
<td>And</td>
</tr>
<tr>
<td>brb</td>
<td>Be right back</td>
</tr>
<tr>
<td>b4</td>
<td>Before</td>
</tr>
<tr>
<td>cos, coz, bcoz</td>
<td>Because</td>
</tr>
<tr>
<td>gr8</td>
<td>Great</td>
</tr>
<tr>
<td>plz</td>
<td>Please</td>
</tr>
<tr>
<td>thx, tnx</td>
<td>Thanks</td>
</tr>
<tr>
<td>4 u 2 c</td>
<td>For you to see</td>
</tr>
</tbody>
</table>

**Participants**

The MXit intervention started during the second semester of 2008, when the module code was still ACN202R. In 2010, however, the module code changed to FAC2602, and for the purposes of this article, reference to the new module code will be used. FAC2602 is a semester module, presented to second-year...
Accounting students in the Department of Financial Accounting in the College of Economic and Management Sciences. In 2008, the content of the FAC2602 module consisted of six topics, namely group financial statements, statements of cash flows, earnings per share, time value of money, leases and valuations.

After obtaining ethical clearance and permission for this project, a notification was sent to all registered FAC2602 students, explaining to them how to register for MXit on their mobile phones and indicating to them when the lecturer would be available on MXit. It was decided to assist students not only during the day but also at night, as most students worked during the day. I preferred to communicate with one student at a time, and not to create MXit groups for students to communicate with one another. I am of the opinion that students do not always ask questions in a group environment, as they think other students might consider their questions to be unimportant. Table 2 gives the number of registered FAC2602 students and the number of students who registered on MXit to communicate with me.

Table 2: MXit registration

<table>
<thead>
<tr>
<th>Period</th>
<th>Registered FAC2602 students</th>
<th>Registered MXit students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd semester 2008</td>
<td>2 806</td>
<td>234 (8.34%)</td>
</tr>
<tr>
<td>1st semester 2009</td>
<td>2 817</td>
<td>242 (8.59%)</td>
</tr>
<tr>
<td>2nd semester 2009</td>
<td>3 006</td>
<td>279 (9.28%)</td>
</tr>
</tbody>
</table>

**Procedure**

After registering for MXit on the notebook, I started accepting students via MXit, as students started to invite me to communicate using the application. Users mostly do not use their family name on MXit; they prefer to register with an alias. The students’ names on the MXit screen appear in either in green (online), yellow (online but away), red (online but busy) or grey (offline), which is an indication of their presence. The second screen is the ‘chat’ screen where the conversation between lecturer and student is displayed. Every time another student starts a conversation, a new ‘chat’ screen opens. The MXit PC programme automatically displays the next incoming message on the screen, with the effect that the lecturer can respond to the oldest incoming message first. A small blue screen appears on the bottom right-hand side of the notebook screen as soon as a student goes online.
MXit PC is user-friendly: it allows a student to ask a few questions, go offline to work through a question after the lecturer has explained a concept, and then to rejoin the MXit conversation where the previous questions and replies are still displayed. A helpful component of MXit is the function that allows the students and the lecturer to leave messages offline. Whenever the lecturer goes online, a yellow envelope on the screen is an indication that a student has left a message. This means students can send messages to the lecturer at any time, from anywhere, at a nominal cost. Another important factor is that all other programmes on a computer can still function effectively while MXit is active. This means that the lecturer can work on other study material documents, yet attend to emails and discussion forums while assisting students on MXit.

**Data collection**

During the study on which this article reports, I was available during most weekdays, once or twice on weeknights (excluding Fridays) as well as on the two Saturdays before the examination. No specific times were supplied to students. Data were collected in three different ways for this project.

Firstly, I kept a journal of MXit times, online students and conversations. Login times, the user names of students asking questions, the time when a question was asked, the type of question and the length of the conversation were recorded. On average, I was available for a total of 124 hours during the day, 86 hours at night and 11 hours on Saturdays (per semester) over a four-month period. It was interesting to note that, although an average of four per cent of students were online during the day, less than 50 per cent of these students communicated with me. At night, however, an average of 14 per cent of the students went online and I communicated with at least 50 per cent of them. It was also interesting to note that most of the time different students asked questions on consecutive nights. Although I assisted up to 15 students at a time, the MXit system could handle the numbers and students were helped effectively.

During the first few weeks of every semester, general questions on topics relating to the recommended make of calculator, study materials, as well as textbook requirements were received. As students became more involved with their studies, 88 per cent of the questions focused on subject-specific queries. During the second part of the semester, I had to start motivating more students to keep them focused, as most of them complained about working full time and not having enough time to study at night. It was interesting that a few students also wanted assistance on another second-year Accounting module.

Secondly, data were collected by way of two feedback questions which were posted on myUnisa, an online student academic portal, during 2009. A notification
on myUnisa stated the aim of the questions to students and guaranteed their anonymity. The purpose was to establish the answers to the following questions:

- Did students use MXit to communicate with the lecturers?
- Did students find the MXit communication useful?

A very low percentage of students answered the questions. Only 158 of the registered FAC2602 students (less than 6%) completed the survey. The results can therefore not be used to make generalised assumptions about the whole study population. However, the data gathered do provide some insight into a small part of the study population.

More than 40 per cent of the students indicated that they were not familiar with MXit and therefore did not use it. However, it was interesting to note that almost 50 per cent of the students who made use of this intervention indicated that the MXit communication was very helpful.

Finally, a discussion topic was opened on myUnisa in 2009 and students were asked to comment on their MXit experience. Extracts from comments students posted on myUnisa are provided below. The extracts are direct quotes and the grammar and spelling errors have not been corrected. The quotes are anonymous:

*I am now able to chat with the lecturer on mxit. It is too cheap and very helpful, and it's full of fun :-) I feel like a high school learner. Hehehe.*

*yes i have communicated with lectures on mxit and I think they are very cool.*

Data gathered from MXit conversations sent to the lecturer confirm the above findings. None of the conversations about MXit was negative. The only negative feedback from students in this project was posted on the discussion forum. The following comments appeared:

*I dont use mxit as i my email for questions, i wil try in future to use the mxit thing.*

*My phone does not have access to Mxit. So I have not been able to utilise that opportunity.*

DISCUSSION

In general, my perceptions – along with those of my students – were positive with regard to the use of MXit for student support. I felt more connected to the students after assisting some of them on a regular basis. The same applied to most of the students, as most left positive offline MXit messages of gratitude after the examination.
There are only two negative components of MXit that should be considered before using this technology. It happened, on a few occasions, that the Internet disconnected. Whenever this occurred the conversations stayed on the notebook screen for a while, but if the connection was not restored within a few minutes, I had to log in again. All previous conversations between the students and me were then lost, and students had to resubmit their questions. The same applied when students disconnected from MXit on their mobile phones.

Another hitch is the fact that MXit interacts with people. The negative side of this societal utility is that it has been the hunting ground for paedophiles who seduce young girls under false pretences (Thomas 2006). During the research period, it happened twice that I was invited by ‘a student’, but after one or two unacceptable remarks and questions, I had to delete the contact from MXit. As with any other online facility, MXit has to be handled with integrity by both lecturers and students.

**CONCLUSIONS**

Distance education institutions can no longer only supply students with study material and assume that they will be able to manage on their own. Support, in any form, will be beneficial to students in their studies. In a developing country like South Africa, using online technologies often remains unrealised because of the persistent impact of lack of access, bandwidth and cost to students. Most students, however, have mobile phones, thus creating an ideal opportunity for lecturers to increase the effectiveness of learning. Based on the evidence provided, the use of MXit can enhance the learning experience of Accounting students, and can provide them with the assistance, feedback and motivation which are so often missing from distance education.

Comments from students in this MXit project suggest that instant message exchange has positive attributes, when used to assist students at a distance education institution. Not only do students enjoy using the application, they appreciate the timeous assistance they receive from the lecturer. MXit, as student support tool in higher education, is still in its early stages. At the rapid rate users (and students) are registering for the application, lecturers need to acknowledge the possible uses of MXit. Most students have a mobile phone, and communicating with a lecturer using MXit is cost-effective. As student numbers in the age group 20–30 increase, educators should investigate the possibilities of using technologies which are well known to the new generation of students.

From an academic perspective, the research offers insights into the use of the MXit application on a PC to assist students in their learning experience. The
time slots during which students prefer to be assisted, are also highlighted. As only a small number of FAC2602 students made use of MXit in 2008 and 2009, the findings of this research can only provide some insight into the possibilities of reaching more students. Further research is necessary to investigate the sustainability of MXit in higher education, and the effect it might have on students’ success and retention rates. MXit can no longer be defined as a hype amongst most South African teenagers; it is definitely here to stay and 4 us 2 use.

REFERENCES


A. A. van Rooyen


