# Supporting distance education students: The pilot study of a tutorial model and its impact on students' performance

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#### **Abstract**

This pilot study investigates the impact of a tutorial model on the performance of distance education students enrolled for an Advanced Certificate in Education (ACE) programme. The aim of the support system is to enhance learning and improve performance. Towards this end, the institution developed a tutorial support system model, which is not dependent on the availability of a tutor, but rather on peer group learning to create a learning environment. The model also depended on carefully designed worksheets. By using a mixed-methods approach, the researchers combined observations, surveys and analyses of student records. Preliminary advantages identified by student participants included clarity of focus, the opportunity to learn from other students, and exposure to the handling of assignment and examination questions. Based on the performance of the first and second cohorts in attendance, one may speculate that students who availed themselves of this opportunity seemed to perform better. Findings from the study suggest that open and distance learning (ODL) institutions will increasingly be differentiated by the support they offer rather than by the material they provide, especially at higher levels of study.

#### INTRODUCTION

Distance education has become an important means of bringing lifelong education to people all over the world. Improving distance education programmes has become inevitable to justify the effort and money spent on it (Aluko 2008). Distance education programmes are expected to produce the same outcomes and meet the same standards as traditional, campus-based programmes (Kilfoil 2005). This article focuses on the tutor system, which is suggested to be one of the ways of improving the quality of distance education programmes.

The Online Free Dictionary (2008) defines a tutor as the '[o]ne that gives additional, special, or remedial instruction'. In literature on distance education, distance education tutors have different names according to the functions assigned to them (Dillon and Blanchard 1991).

With particular reference to *dialogue*, *structure* and autonomy (the three concepts that constitute Moore's Transactional Distance Theory), Peters (1998) identifies tutors as one of the groups involved in *spoken dialogues*. A dialogue between a tutor and a student refers to the contents of the course that a student is working through. This should not merely be a repetition of the course content (Peters 1998). In explaining 'interaction', Moore (1993a) discusses three essential relationships in distance education: learner-instructor (dialogue between the student and the teacher), learner-content (how students obtain intellectual information from the text) and learner-learner (the exchange of ideas between students). One could argue that the face-to-face tutorial session caters for all three levels of interaction

Distance learning institutions are no longer judged by the quality of the learning material made available to students alone. Greater emphasis is placed on the quality of their student support services. This is necessary, considering the fact that most students who enrol for distance education programmes from traditional learning backgrounds are ill-equipped to handle the unique demands of studying at a distance (Lowe 2005). In addition, the growing volume of open educational resources (OER) suggests that ODL institutions will increasingly be differentiated by the support they offer, rather than the material they provide, especially at higher levels of study. Unfortunately, in spite of its perceived importance, little research has been done in this area (Lee 2003; Zawacki-Richter 2009).

In view of the confusing terms used to describe activities that form part of student support services, Simpson (2000, 6) defines these in the broadest terms as 'all activities beyond the production and delivery of course materials that assist in the progress of students in their studies'. This can be both academic and non-academic. Current thinking is that support should be available for every learner in all aspects that could directly affect his or her success (Welch 2003). However, the main purpose of supporting learners is to provide an environment that improves students' commitment and motivation to learn (Qakisa-Makoe 2005). This becomes necessary because most open and distance student learning occurs independently of the teachers' presence with students focusing primarily on engagement with the material they receive (Evans 1997). Unfortunately, most African countries still depend largely on the first-generation mode of delivery (print). Although advanced technology is slowly becoming an important feature

of distance education in Africa, it remains the single-most significant handicap on the continent (Mpofu 2005). Distance education providers in South Africa have greatly improved in terms of providing student support services. However, access to these services is a very thorny issue (Nonyongo and Ngengebule 2008).

This study, which stemmed from operational research, was necessitated by a need identified by the Unit for Distance Education at the University of Pretoria to evaluate its tutorial model and ascertain what possible benefits the model might add to students' study success. Hence, the research question for this study: What does the tutorial model introduced to support distance education students at the University of Pretoria entail, and what are its potential benefits to students?

#### **BACKGROUND OF THE STUDY**

# Student support system for distance education students at the University of Pretoria

Although the University of Pretoria (UP) is largely a contact research university in South Africa, as at the time of this writing, it presents three distance education programmes through its Unit for Distance Education in the Faculty of Education (UP 2004a). The University of Pretoria is well aware that studying at a distance while working full-time is difficult. Therefore, it developed extensive academic support structures to help students succeed in their studies (UP 2009). These include contact sessions (long and short), tutorial letters, assignments, short message service (SMS) and an academic enquiry service. These are necessitated by the fact that most of the University's distance education student populace are adults from rural areas, who have little or no access to information and communication technology (ICT). About 70 per cent of these students are over 40 years of age.

# The development of a tutorial model

The Unit for Distance Education introduced a free and optional tutor system as a pilot study at 16 learning centres for the Advanced Certificate in Education (ACE): Education Management programme in 2008 (UP 2008a). The purpose of this additional student support mechanism was to improve the quality of students' learning (Aluko and Hendrikz 2009). There have been multiple claims (although not supported by data) linking the provision of appropriate learner support services to student retention and student satisfaction (Lee 2003). However, in a developing context, there are many constraints to sustaining a quality tutor system, especially in rural areas. These include identifying and training tutors,

ensuring that the content of tutorials is similar in terms of quality and content, and ensuring tutor attendance (Aluko and Hendrikz 2009). Therefore, the university developed a model for the delivery of tutorials in which these constraints are minimised.

As depicted in Figure 1, the students enrolled at the University of Pretoria follow an academic cycle that is made up of six months (April to October or October to April).

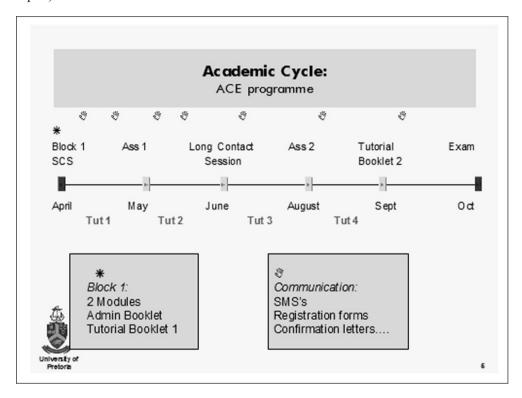


Figure 1: Distance education model at the University of Pretoria

This cycle comprises diverse academic interventions, such as an Admin Booklet, Tutorial Letter 1 and SMS communication. Each cycle in the ACE: Education Management begins with a short contact session. This is a one-day (Saturday) orientation programme. It is followed by Tutorial 1, Assignment 1, Tutorial 2, a long contact session, Tutorial 3, Assignment 2 and Tutorial 4. The cycle is concluded with an examination. This means that there are four tutorials in an academic cycle.

In order to encourage interaction among students, the tutorial model is based on the concept of peer group learning (PGL). Peer learning has been defined as 'students learning from and with each other (in a group) in both formal and informal ways' (Boud, Cohen and Sampson 2001, 4). Research shows that regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain it for longer than when the same content is presented in other instructional formats (Davis 1993). In this model, the tutors do not operate as 'subject experts', but as 'facilitators'. Tutors are former students in the local communities where the learning centres are situated and with whom students can relate. These students have obtained the B.Ed (Hons) Education Management, Law and Policy degree via distance education. They have been trained as tutors by the university and receive additional training on an ongoing basis.

The 'tool' used by both the tutor and the students is a worksheet that has been instructionally designed with care to create a learning platform for students in a group. The worksheet directs the students via activities and questions that require them to engage with the study material. The worksheets give a clear indication of the outcomes for each activity and each activity has a set time limit (UP 2008b). The module content has been divided into four 'chunks', with each tutorial covering about 25 per cent of the work. Students who attend all the tutorials will have covered all the learning material. Evaluation forms are circulated during each tutorial session to elicit feedback on the programme.

#### **RESEARCH DESIGN**

# Methodology

Researchers adopted the mixed-methods approach to answer the research question posed earlier in the study. With this approach, they combined surveys, observations and documents to involve all the stakeholders who participated in the programme.

# Target groups and sampling

Purposive sampling was used. This is commonly associated with qualitative methods, but could be used in either a qualitative or a quantitative study (Tashakkori and Teddlie 2003). The aim of this type of sampling is to target a particular group, in the full knowledge that it does not represent the wider population (Cohen, Manion and Morrison 2000).

For the pilot study, 900 of the 7 965 enrolled students (11%) were invited to the 15 centres. This sample was made up of 20 students per venue for each of the three blocks. Other participants included 45 tutors, who would facilitate student learning, and nine quality assurors (academic and non-academic staff members).

As illustrated in Table 1, 194 of the 900 invited students (22%) participated in the study, together with the tutors and quality assurors.

Table 1: Attendance of participants (1st Cycle: Tutorial 1)

Participants	Total
Students	194
Tutors	45
Quality Assurors	9
Grand Total	248

A possible reason for the students' low turnout may be that this type of tutorial system had never been part of the support structure prior to this time.

## **Data collection strategies**

#### Surveys

Three different questionnaires were given to the participants. The questionnaires comprised mostly open-ended questions with a few closed-ended questions (Johnson and Turner 2003). The open-ended questions allowed the respondents to provide a richer assortment of information, which gave the respondents greater ownership of the data (Cohen, Manion and Morrison 2000). The questionnaires covered items such as the appraisal of tutors' facilitation by students, the effectiveness of activities for facilitation, the usefulness of tutorial worksheets, clarity of outcomes for each activity, student participation and their attendance at the next tutorial session, programme organisation and recommendations.

#### **Observations**

Since gathering and processing observation data are labour intensive activities, the sample size in any such study is quite small (Simpson and Tuson 2003). For this study, the researchers were involved in the direct observation of sessions by visiting some venues during the sessions. Each session was two hours long and nine observations were made during the pilot study. The researchers developed a set of categories to determine what to look for. These were: the organisation of students into groups by tutors, tutor facilitation, students' interactivity, worksheets (their relevance to the approach adopted for the system) and students' connection to the learning material and study guides sent to students for each module.

#### Student records

As the researchers were interested in later establishing the possible relationship between students' attendance and their performance, they made use of the records of learners' performance in the first and second cycles.

## **Piloting of instruments**

As the tutorial system under investigation was new at the University and the instruments were applied for the first time, the application of the survey was regarded as a pilot survey (Baker 1994). This was done in the hope that identified inadequacies would be corrected before the second cycle of implementation.

### **Data analysis**

#### Surveys

The data analysis was based on the responses of the participants to question items in the surveys. The researchers developed codes for the open-ended questions based on the concepts and themes frequently mentioned by respondents (Hardy and Bryman 2004). The questionnaires were analysed using descriptive statistics to determine the frequencies of participants' responses.

#### **Observations**

The analysis of the observations was based on the field notes taken by the researchers during class visits. Both researchers compared their field notes and analysed them based on the developed set of categories.

# Analysis of students' performance

For the analysis of students' performance, the researchers applied descriptive statistics to make a comparison. The performance of students who attended three to four sessions ( $\bar{x} = \frac{\sum x}{n}$ ) was compared to the performance of those who did not ( $\mu = \sum X / N$ ). It was not possible to use inferential statistics for various reasons. In the first instance, the flexible nature of the distance education delivery model made it impossible to monitor the performance of similar students during the first and second cycles of the tutorial session as attendance was optional. In the second instance, the project was still in an embryonic stage. Finally, the percentage of students who attended the sessions was very low in comparison to the population.

#### MAJOR FINDINGS OF THE STUDY

## First three surveys

Table 2 reflects the data gathered from the responses of the students to questions in the questionnaire. These questions covered their satisfaction with tutors' facilitation, the effectiveness of the activities in which they were engaged during the session, the usefulness of the worksheets they had used and their possible attendance of the next tutorial session.

Overstion Items	Response					
Question Item	Yes	%	No	No %		%
Students' satisfaction with facilitation	181	93	10	5	3	2
Effectiveness of activities	188	97	6	3	-	-
Usefulness of worksheets	185	95	7	4	2	1
Attendance at next session	185	95	5	3	4	2

Table 2: Students' response to quantitative data (n = 194)

#### Students' satisfaction with tutors' facilitation

Students' responses to the question on their satisfaction with tutors' facilitation were positive in 93 per cent of the cases (181 of the 194 students) and negative in five per cent of the cases (10 students). This corroborated with the responses of the tutors and the quality assurors, as 12 (86%) of the tutors indicated their facilitation to be successful, while two (14%) indicated it to be average. Five of the quality assurors also indicated the facilitation of student learning of five (56%) of the tutors to be efficient, three (33%) to be fair, and one (11%) to be poor. From the qualitative data, reasons given by students in their perception of good facilitation by tutors included encouragement of group discussion by tutors', which was 'informative' and 'encouraging' and provided 'the opportunity given to students to contribute to their learning'. Others felt that most of the tutors were well prepared. Interaction among students is important to a meaningful learning experience (Thurmond and Wambach 2004). This helps to encourage spoken dialogue (Peters 1998) and reduces the transactional distance between students and institutions (Moore 1993b).

The responses of the ten students who had answered negatively indicated that they expected tutors to teach instead of facilitate their learning. However, one of the quality assurors indicated that some of the tutors needed further training in 'facilitation skills'. This might have been due to the assertion of Holmberg

(1995) that even efficient tutors in a class or group are apt to take command and teach, instead of guiding or advising.

#### **Effectiveness of activities**

Students' responses to the question on the effectiveness of activities for the session were positive in 97 per cent of cases (188 of the 194 students) and negative in three per cent of cases (six students). Some of the reasons given by the first group were that the session 'helped our understanding and gave us clarity of focus', 'it exposed us to the mode of exam questions', 'the activities were an eye-opener' and 'we had the opportunity to learn from other students'. To reinforce these comments, three of the quality assurors (33%) indicated the effectiveness of activities to be efficient, while six (67%) indicated their performance to be fair. According to them, 'the facilitators created context', they 'let groups discuss' and 'had group leaders write summaries of discussions on the chalkboard for comparison, which guided students towards achieving outcomes'. Other comments indicated that activities were 'relevant and challenging' and 'the time frame given to each was appropriate'. As a result, 'students were able to generate a lot of ideas from their own practical on-the-job experience'.

The response of a quality assuror who provided probable reasons why some students were dissatisfied cited challenges such as the following: 'in some groups, discussion occurred without taking the outcomes into consideration', there was 'mismanagement of time' and there was an 'expectation of students to be spoonfed on the assignment they were expected to submit'.

#### Usefulness of worksheets

For peer learning to work, the teacher must consciously orchestrate the learning exercise and choose the appropriate vehicle for it (Christudason 2003). Students' responses to the question on the usefulness of the worksheets were positive in 95 per cent of the cases (185 of the 194 students) and negative in fourper cent of the cases (seven students). Some of the reasons provided included the 'relevance of the worksheets', 'their link with appropriate modules as relevant pages were provided', 'they contained questions which encouraged critical thinking', 'they were in simple English' and 'I could even use them at home'.

Reasons given by respondents who had answered negatively included 'duplication of what was in the study guide', 'they did not contain adequate information' and 'too small space for writing our response'.

#### Attendance of next session

Students' responses to the question regarding their attendance of the next tutorial session were positive in 95 per cent of cases (185 of the 194 students) and negative in three per cent of the cases (five students). Some of the reasons given for committing to attending the next tutorial session were 'because it will help me to prepare well for the coming exams', 'it will help me to improve my study methods', 'it will help me to gain more information and understanding' and 'it will help me to meet other students and to brainstorm with them'.

Two of the students who indicated that they would not be attending the next session answered in the negative because they were doing their last module. The other three found the sessions to be boring and felt that the tutor was not capable enough, that the centre was too far from the students' home and that not all the students' questions had been answered.

# ANALYSIS OF THE POSSIBLE IMPACT OF ATTENDANCE ON STUDENTS' PERFORMANCE

For the analysis of the impact of attendance on students' performance, the researchers opted to focus on students who had attended three of the four tutorial sessions and those who had attended all the tutorial sessions. They believed that only those groups would yield reliable results. These students were selected from the first and second tutorial session cycles. Table 3 shows that of the 7 965 students enrolled for the programme, 132 of the Block 1 students enrolled for the first cycle and 115 of the Block 2 students enrolled for the second cycle fall in this category. However, the same set of students did not attend both cycles. The implication of this for the study was that the researchers had fewer students to work with.

The analysis shows that the average performance of students who were expected to have completed the first two modules of the programme and to have attended three to four tutorial sessions appears to be better than the average of the group who did not attend the sessions in all instances.

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Table 3: 1st Cycle -- Average % of the performance of students who attended three to four sessions in comparison to the group average

BLOCK 1					
Module	Assignments (1 & 2)	Exam	Final	Difference	
EDM 401 (n = 132)	15.59	50.43	56.77		
Group Average	14.99	47.00	53.55	3.22	
EDS 401 (n = 132)	13.44	49.84	51.87		
Group Average	13.44	44.36	49.09	2.78	

Table 4: 2nd Cycle --Average % of the performance of students who attended three to four sessions in comparison to the group average

BLOCK 1					
Module	Assignments (1 & 2)	Exam	Final	Difference	
EDL 401 (n = 115)	12.1	51.8	58.7		
Group Average	10.87	47.98	45.78	12.92	
EDO 401 (n = 115)	14.7	54	56.5		
Group Average	13.75	52.28	53.72	2.78	

From the documents, one could speculate that there are indications that the attendance of students at tutorial sessions seems to have a positive impact on their performance. However, the researchers think it may be too early to jump to conclusions. The research design was also not experimental, in which case control would have been exercised over dependent and independent variables. This suggests that such research is needed.

# AREAS REQUIRING IMPROVEMENT IDENTIFIED BY PARTICIPANTS AND SUGGESTIONS

According to the participants, groups in some cases were too large. They suggested that there should be no more than six students in a group. This would encourage better student participation as some students tend to remain silent in a large group. Further training is also advised for tutors as findings show that some tend to teach instead of facilitating. In addition, there is a need for the continual evaluation of worksheets. Venues should also be brought closer to students as the need arises.

#### LIMITATIONS OF THIS STUDY

Although the new model appears to be working at the university, scholars have continually stressed that the success or failure of a tutorial model may differ from one context to the next. Although the Unit for Distance Education's continual monitoring of the tutorial system has persistently shown that students who attend tutorial sessions may perform better than those who do not, it may not be possible to generalise the findings of this study. Because the research design was not experimental from the beginning, the statistical data of the attendees was included. Top achievers who did not attend the group discussion might also have been included in the group calculation.

#### **RECOMMENDATIONS**

Universities' attempts (especially in a developing context) to conduct tutorial sessions are challenging for a number of reasons. These include getting relevant local tutors, tutors' absence and lack of a tutorial 'tool' apart from students' learning material. Therefore, universities working in a distance education mode are encouraged to look into the possibility of adapting the model of using past students of the programmes in the locality of the students homes as facilitators, who can relate to the students and empathise with them. They should also develop a tutorial 'tool' separate from students' learning material, which can serve a dual purpose: first, to prevent the boredom of working with the same material on the part of the students, and to prepare for the sometimes inevitable absence of tutors.

As indicated in the findings, the training of module coordinators and tutors should be ongoing. There is a need for a better grasp of what their roles should involve, especially in view of the approach adopted for the model. This is closely related to understanding what relevant activities can be aligned to the model. There is also a need to continually review the worksheets and monitor the entire

programme. Since attendance at support sessions is a challenge to distance education students, venues should be brought closer to the students in order to encourage their attendance.

Finally, a longitudinal study of the relationship between students' attendance at tutorial sessions and their performance should be conducted, as the findings may not be conclusive. The research design and methodology should involve the use of experimental design with inferential statistics in order to generalise the findings.

#### CONCLUSION

Overall, findings from this study suggest that students who regularly attend the tutorial sessions introduced by the university perceive the support system to be beneficial to their studies. Some of the advantages indicated by the participants included the opportunity to meet other students, thereby reducing isolation, comparing and gaining information from other students, and making aspects of the modules for which they are registered clearer. These support earlier advantages identified by Nonyongo and Ngengebule (2008), which generally improve the quality of distance education.

In this model, the foremost responsibility of the tutor is to facilitate students' learning, while the tutor has to assure a minimal educational intervention to guide the learning group in a productive way (Dillenbourg 1999). However, student and quality assuror participants indicated that some tutors did not play this role effectively. This supports the need for the ongoing training of tutors to expose them to their functions as many of them are apt to 'double the course' (Holmberg 1995). The University of Pretoria continually provides training for tutors as the need arises, and has supported this with DVDs for the revision of what tutoring looks like in this context. In addition, the worksheet, which was the tool for the support structure, was instructionally designed, and was constantly under review. Module coordinators also underwent training to ensure that the worksheet was aligned with the peer group learning philosophy adopted for the system.

Finally, the researchers feel that institutions have a moral obligation, irrespective of their distance from students' homes, to provide them with the necessary support services. It has been ascertained that future research needs to adopt a learner-centred approach in designing and implementing learner support services. It also needs to develop ways of identifying, synthesising and assessing student needs, and to systematically adapt the support system to those needs (Lee 2003). This will help distance education practitioners to boost students' performance, thereby improving attrition rates. The onus is on institutions to

decide what would work best for them, given their peculiar contexts. However, it is the researchers' view that the success of any programme depends on the students effectively playing their part (Aluko and Hendrikz 2009).

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