Tutoring support as a predictor of student retention in distance learning: The case of a University in Ghana

Vera Arhin & John Ekow Laryea
University of Cape Coast (Ghana)
varhin@ucc.edu.gh & john.laryea@ucc.edu.gh

Abstract
The tutor’s role in enhancing student retention in distance learning is paramount. This study aims to predict retention and not actual retention by investigating how tutoring support predicts student retention in distance learning at the University of Cape Coast in Ghana. Moore Transactional Distance Theory underpinned the theoretical framework of this study. The correlational research design was adopted for the study. The multistage sampling technique was used to sample 727 student participants from a sampling frame of 8731 out of which 625 was used for the analysis. A structured questionnaire was used to collect data. Data were analysed using descriptive and inferential statistics. The findings of the study revealed that the respondents had a positive perception towards tutoring support offered at the University. However, at an alpha level of .05 tutoring support made a non-significant contribution to prediction (p = .11). The findings further, revealed that a unit increase in tutoring support will improve student retention by 1.42 times. Implications of the study were also discussed.

Keywords: distance learning, tutoring, retention, student support

Introduction
Obtaining a postsecondary education has become a necessity in the contemporary world, due to the demand for people to gain more knowledge and acquire new skills for employment requirements. McFarlane (2011) acknowledges that we are living in a school economy and people are seeking some form of training and education to improve skills and prospects for work. Adams (2011) affirms that “a large number of students attend college with the hope of obtaining a degree which society says is the new prerequisite for a middle-class life” (p. 19). This and other factors have in recent times brought distance learning to the forefront of educational practice.

Freeman (2010) defines distance learning as an educational delivering where the tutor and students’ are separated by time, location or both. This can either be synchronous (real-time classroom facilitation led by a tutor at the same time) or asynchronous (when the interaction between the tutor and students is not linked at the same time). Similarly, Schlosser and Simonson (2009) assert that distance learning is a formal education process where the learning group is separated and interactive telecommunications systems are used to connect learners, resources and tutors. Distance learning is thus a normal education process whereby the tutor and the student are not physically on site. One advantage of this educational process is that, it is flexible and offers opportunity for people to combine learning with other activities such as work and family related issues.

Despite its flexibility, retention of students has been identified as one of the greatest weaknesses in modern distance learning (Anderson, 2011; Harewood Cox, 2015; Nichols, 2011). This weakness has engulfed many distance learning institutions across the world, and distance institutions of higher learning are increasingly becoming conscious of putting much emphasis on student retention. Seidman (2012) asserts that although institutions have responded to student retention issues by implementing
programmes and services to enhance retention, the retention rate has not yet improved. Similarly, Bukholder et al. (2013) pinpoint that despite research and theorisation that have taken place for nearly more than 50 years, student retention rate in distance learning remains not only relatively low but also has remained relatively stable. Pluhta and Penny (2013) and Tschechtelin (2011) aver that retaining students in institutions of higher learning are essential to a nation’s development because of its economic effect in increasing human capital.

Nichols (2011) argues that there is no standard definition for retention; however, some retention experts have defined retention based on their own theoretical perspective. Noel-Levitz (2008) defines retention as the successful completion of a student’s academic goals of degree attainment. Berger et al. (2012) define retention as the ability of an institution to keep students from the point of admission to graduation. Retention is therefore seen as a function of an institution’s responsiveness to keep its students. Retention in this study refers to a student’s persistence on a programme of study until completion.

A study conducted by American College Testing (ACT, 2010) on “What works in student retention in higher education” revealed varied findings depending on the nature of the institution and the institution’s students’ body. The study findings revealed some successful approaches to enhance retention as freshmen seminars and summer orientations, tutoring support, enhanced academic advisement, early warning systems and interventions for students. However, Kiguwa and Silva (2007) believe that a tutor’s attitude towards students, is essential for academic success and helps to keep students in school until graduation. Tutoring refers to the act of helping and supporting the learning process of people in an interactive, purposeful and systematic way (Topping, as cited in Zambrano & Gisbert, 2015). Tutoring is therefore seen as a social process where learning skills are improved through interaction.

The University of Cape Coast (UCC) which operates on a dual mode system, runs campus-based mode and the distance learning mode. The College of Distance Education (CoDE) is the distance learning wing of the UCC. The distance form of learning is not an open learning form and there are admission criteria attached to it. Students who wish to enroll in the distance education programme must meet the university’s admission requirements. The CoDE for some time now has gained significant advances in its graduation rate, nonetheless, improvement is still needed in the college retention rates. The trend has been that most first-year class sizes are very large, but decrease gradually every year, making retention rates to be low at CoDE.

Several studies had been conducted to investigate measures that can enhance students’ retention at the college. Studies that have investigated this phenomenon include that of Arhin and Wang’eri (2018) and Akumaoah-Boateng and Boadu (2013). Although the College has made tremendous efforts to put in place some measures based on the recommendations of the studies, retaining students at the college is still a problem. Over time, if the situation is not dealt with, the College is likely to lose its responsibility to educate students. Hupfeld (2007) believed that no single factor can predict student retention. Kalsbeek and Zucker (2013), opine that retention is institutional and sometimes culture specific and as such institutions need to find out what works best for them. This therefore calls for other interventions that can enhance retention of students at the college.

The purpose of this study was to examine if tutoring support predicts students’ retention in distance learning. Specifically, the following objectives were used to guide the study. To:

- Examine students’ perception of tutoring support provided at the College of Distance Education.
- Investigate if tutoring support predicts retention of students at the College of Distance Education.
Theoretical Framework

Moore’s (1983; 2013) Transactional Distance Theory underpinned the theoretical framework of this study. The theory enunciates that distance education is not simply a geographic separation of learners and teachers, but is a pedagogical concept. Moore posits that there is a psychological and communication gap between the student and the tutor which can lead to misunderstandings and feelings of isolation. It is this distance in the relationship of the two partners that Moore referred to as ‘transactional distance’.

Moore (1983) points out that when talking about distance education teaching environment, the separation between the teacher and learner requires special organisations and teaching procedures. These procedures fall into two clusters: the independence that each learner requires in the teaching and learning process; and the requisite structure that the tutor brings to bear to ensure that students meet the necessary learning objectives. Moore (1983) identifies three variables: dialogue, structure and autonomy in the learning environment and indicates the importance of dialogue and its effectiveness in solving the learning concerns of learners. Moore describes dialogue as interactions between the teacher and the learner which are determined by the extent to which learners and teachers are able to respond effectively to each other. Structure is the extent to which educational programmes accommodate or respond to each individual learner’s needs. In this case if the learner finds the structure not to be relevant to his/her needs, he or she will not persist and will drop out from the programme of study. Autonomy on the other hand refers to the extent to which learners decide on certain factors such as what to learn, how to learn and when to learn (Moore, 2013).

Transactional Distance Theory was adopted for this study because it is an important theory that continues to attract research interest in distance education. It summarises the importance of the medium of communication in the distance learning environment, the quality of interactions and the programmes support responsiveness to the individual learner’s needs. For example, when tutors are well prepared for a class and are able to deliver the content such that it caters for the learners need, the structure in the Transaction distance is catered for. Further, students are able to communicate effectively with their tutors and tutors are available for consultation, the need for dialogue is also catered for. Finally, when students receive information on how to study from the tutors, are motivated to learn by tutors and their individual differences is considered, then the need for autonomy is also catered for.

Moore (1983) asserts that as the learner acquires expertise, the need for structure decreases and autonomy increases, which lead to learning pattern of behaviours that are more constructive. Saba and Shearer (as cited in Saba 2012) conducted a study to test Moore’s theory and their findings revealed that, in each case when structure increases, transactional distance increases whereas transactional distance decreases when dialogue increase.

Literature Review

Mustafa (2018) explored students’ perceptions about how tutoring support affects them. A total of 25 students were randomly selected to participate in the study. A survey was given at the end of the semester to all participating students. Students expressed great satisfaction with the service and indicated a need for such assistance in lower division engineering classes. The study revealed that tutoring was perceived to improve the success rate of students as it helped students in lower division of an engineering class to be retained in school.
Zhan et al. (2013) examined Hong Kong students’ perceptions of the effectiveness of private supplementary tutoring relative to mainstream schooling. Using a mixed method design, both quantitative and qualitative data were collected using 1646 students for the quantitative data while 101 students were interviewed from among those that responded to the questionnaire. After data analysis, the findings revealed that students generally perceived tutoring support to be more effective in the provision of examination support compared with mainstream schooling.

In another study, Sego (2014) investigated tutor support role in upgrading of the student-teacher at the University of South Africa, using a sample size of 25 out of 155 final year students. A qualitative approach was adopted. The responses were transcribed, coded and four themes were generated from the data. The findings of the interview data revealed that the majority of the respondents had a positive perception towards tutoring support. They contended that during contact sessions most tutors offer good support. However, some of the students were of the view that they did not communicate much with the tutors on how to plan their own workload, information about course structure and organization. Participants acknowledged that they need encouragement from their tutors, particularly at the start of each course to boost their confidence. The findings concluded that tutoring plays a critical role in the student upgrading which helps to enhance students’ retention.

Further, Alisha (2016) investigated the role of faculty (in terms of the educational services they provide) in retaining students in a university in middle Georgia. Ten faculty members at the university were randomly sampled and participated in a face-to-face interview. The data was analysed using a thematic approach. Findings revealed that the faculty members believed their activity affect students’ retention. They further suggested activities such as improved student engagement, building better faculty and student rapport, developing concrete retention goals, and implementing a mentoring programme.

Furthermore, Grillo and Leist (2013) examined the relationship between the long-term use of academic support services such as tutoring, learning assistance, and supplemental instruction and retaining students till graduation making use of a 6-year data from the University of Louisville’s Resources for Academic Achievement Unit. A hypothesis test was conducted to determine if a large quantity of time spent engaging students in academic support services is associated with a higher likelihood of graduation. The study revealed that there is a relationship between academic support of tutors and retention of students.

Mori (2015) explored how tutors support in the form of supplementary tutoring impacts Japan and USA students’ retention on a programme. Four thousand, five hundred students from both schools were sampled. The findings did not obtain any statistically significant in retention from the two countries. The implication given was that, student’s retention was more likely to be dependent on other factors and not only on tutoring support.

Although not comprehensive, the few studies reviewed showed that students have positive perception towards tutoring support services. Further, the reviews on tutoring support revealed that whereas some of the findings statistically influence students’ retention, others did not. This study contributes to local literature on how tutoring support relates to retention of distance students at the University of Cape Coast on the premise of Moore’s theory on ‘Transactional distance’ (with reference to dialogue). Kostina (2011) explored the relationship between autonomy, student-tutor dialogue and satisfaction at a Russian language web-based and found that, autonomy, dialogue and satisfaction had significant correlation at the beginning and the middle point of the course. However, the relationship among them significantly decreased towards the end of the course.
Methodology

The correlational research design was adopted for the study. The purpose of correlational research design is to verify the relationship between or among variables and also predict group membership. According to Creswell (2014), correlational research design is useful when a researcher is interested in investigating the degree of association between two or more variables. With this method, the predictor variable (tutoring-support) was measured and its correlation with the outcome variable (retention of students) computed. Later, prediction of the model was tested to explain the resultant correlation. This research design was suitable for the study because the aim of the study was not actual retention but to predict retention.

The total population of 13,915 was made up of 12,265 Education and 1,650 Business second year students from the then 10 regions of Ghana. However, the sampling frame for the study was made up of 8731 second year students in four regions (Greater Accra, Ashanti, Northern and Central) purposively selected for the study. These regions were the three zoned regions and the headquarters of the college. The four regions were ideal because they have a greater population forming the cream of the total students at the college. The second-year students were chosen because it is at this level that a student can make a genuine and an informed decision about his or her willingness to remain or drop out of college (Noel-Levitz, 2015; Arhin & Wang’eri, 2018).

A sample size of 727 was derived from the sampling frame 8731, using Krejcie and Morgan (1970) sample size determination table. The multistage sampling technique was employed for sampling participants. First, the percentage of students in the sampled frame was calculated to determine the percentage of students per region using the proportionate to size sampling technique. Subsequently, the stratified random sampling technique was used to select the participants from the subgroups. After the stratification, the simple random sampling method was used to select participants from each stratum to be included in the study.

The main instrument for data collection was the questionnaire. A structured questionnaire was divided to obtain primary data from the respondents. The questionnaire had two main sections (A-B) under the subheading: tutoring support, and students’ intention to stay in school. Section A made use of a 5-point Likert type scale which had 10 items to elicit responses on tutoring support. These items were used to measure some characteristics of the tutor that can predict students’ retention. Section B was a binary Likert scale, made up of ten questions and was used to solicit responses on students’ intentions to remain or drop out of school.

Items on the questionnaire were valid as experts in the field of Educational Psychology advice and input were immersed to reflect the knowledge required for the stated objectives. The instrument for the data collection was pilot tested with 73 (10% of the total study sample) which was made up of Education (n = 15) and Business (n = 58) second year students in one of the regions that was not sampled for the actual work. This sample size for the pilot study was based on Connelly (2008) sample size for a pilot study which states that 10 percent of the actual sample size of a study is ideal. After the analyses of the data, the internal consistency obtained through Cronbach’s alpha coefficient was .74, falling in the acceptable regions of .70 which, according to Streiner (2003) is reliable, hence the use of the instrument for data collection.

Both descriptive (percentages, frequencies, means and standard deviations) and inferential statistics (tetrachoric correlation coefficient) were used for the analyses. The perceptions of students on tutoring support were measured on the scale ranging from 1 (strongly disagreed) to 5 (strongly agreed). However, participants who obtained (M ≤ 3) were classified as having negative perceptions while participants with (M ≥ 3.1) were classified as having positive perception. The highest mean a respondent could
attain in all the 10 items measuring perception on tutoring support was \( (M = 5) \) and the lowest mean a respondent could obtain was \( (M = 1) \). Students’ intention to stay in school was measured using 10 items in a binary Likert scale. All statements were worded in negative and an agreement to a statement was coded ‘0’ while a disagreement to the statement was coded ‘1’. The highest score a respondent could obtain was \( 1 \times 10 = 10 \) (meaning the respondent has a high probability of remaining on the programme until graduation) and the lowest score was \( 0 \times 10 = 0 \) (meaning the respondent has a high probability of dropping out of the programme).

Subsequently, to predict group membership of a respondent’s intention to stay in school or not to stay in school and for the criterion variable to be amenable for the binary logistic regression test, the scores of respondents on the 10 items were re-categorised into two. Respondents who had a total retention value score of 5.0 or more were categorised as those who had a high probability of staying on the programme while respondents who had a retention value score less than 5.0, were categorised as those who had a higher probability of dropping out of the programme.

A tetrachoric correlation coefficient \( (r) \) was conducted to establish whether the predictor variable has a statistically significant relationship with the criterion variables. The test was conducted at the \( p = < .05 \) level of significance. Then after, the logistic regression analysis was performed to predict group membership of student participants’ intention to stay in school or not to stay in school. The logistic regression was appropriate because it employs binomial probability theory; in which only two values are used to predict the probability of a person belonging into one group rather than the other (Osborne, 2014).

The researcher gave due consideration to the legal framework governing the conduct of this research. All participants were assured of their anonymity and confidentiality. They were assured that any information provided would be used for the purpose of the study only. Participants were also assured that any information that would identify them (such as names of their study centres) will not be included in the study. Participation in the research was voluntary and participants were made to sign a written informed consent form. Also, participants were free to refuse or withdraw from the study at any time with no ramification. In addition, anything that infringed on their right as participants was avoided.

**Results**

After the collection and cleaning of the data, 625 (51% females and 49% males) valid participants’ responses were used for the analyses. This yielded a response rate of 86 percent. For research objective one, which examined the perception of students on tutoring support provided at the College, the descriptive statistics were used to describe the set of data. The result is presented in Table 1.

The results in Table show respondents have positive perception towards tutoring support offered to students at the university. This is evidenced by the mean of mean score of 3.49 and a standard deviation of 1.21 which is an indication of homogeneous responses. The item (tutors engage students’ in meaningful discussions) yielded the highest score of \( (M = 3.83, SD = 1.06) \). However, items measuring “My tutors encourage students to ask questions in class” and “My tutors motivate me to learn” recorded the lowest scores of \( (M = 2.22, SD = 1.23 \) and \( M = 2.32, SD = 1.27) \) respectively.

The research objective two, investigates whether tutoring support predicts retention of students in distance learning. In order to find an answer to this objective, the scores of respondents on the 10 items used to measure students’ intention to stay in school were re-categorised into two. Respondents who had a total retention value score of 5.0 or more were categorised as those who had a high probability of staying on the programme while respondents who had a retention value score less than 5.0, were categorised as those who had a higher probability of dropping out of the programme. The result is presented in Table 2.
The distributions in Table 2 show that the majority of the respondents 81 percent in Group 2 have higher probability of staying on the programme. This group of respondents scored more than 5 on the student retention sub-scale. Only 19 percent of the respondents are in Group 1 and have the propensity of dropping out from the college.
Table 3. Logistic Regression Predicting Respondents’ Intention to stay on the distance programme from tutoring support

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>Wald X²</th>
<th>P</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutoring Support Services</td>
<td>.35</td>
<td>2.51</td>
<td>.11</td>
<td>1.42</td>
</tr>
<tr>
<td>Constant</td>
<td>1.24</td>
<td>47.56</td>
<td>.00</td>
<td>3.45</td>
</tr>
</tbody>
</table>

Subsequently, the tetrachoric correlation coefficient ($r_{tc}$) test was performed to establish the relationship between the two variables. A test of correlation between the two variables $r(623) = .06$, $p = .15$ was found. The level of significance obtained from the correlation between the two variables was more than the level of significance at which the test was performed. This implies that tutoring support and retention of students in distance learning are not significantly correlated.

Further, the logistic regression analysis was conducted to predict retention of students in distance learning using tutoring support as the predictor. A test of the full model against a constant only model was not statistically significant, indicating that the predictor did not reliably distinguish between students’ retention and their non-retention $\chi^2 (df = 1, N = 625) = 2.45$, $p = .12$. Prediction overall success rate was 81.4 percent. Nagelkerke’s $R^2$ of .01 indicates a weak relationship between prediction and the grouping. The probability of obtaining the chi-square statistics given that the null hypothesis is true is $(2.45)$. The $p$-value, which is compared to a critical value, .05 to determine if the overall model is statistically significant is greater than .05. In this case, the model is not statistically significant.

Table 3 presents the logistic regression coefficient, Wald test, and odds ratio for the predictor (tutoring support).

Employing a .05 criterion of statistical significance, tutoring support made a non-significant contribution of prediction ($p = .11$) which is more than the criterion significance ($p < .05$). The results supported the null hypothesis and concluded that tutoring support is not a significant predictor of retention of students in distance learning. Although tutoring support was not a significant predictor of retention of student in distance, the prediction of the model revealed that a unit increase in tutoring support will improve student retention by 1.42 times. The probability that a student who has a positive perception on tutoring support will stay on the programme is .83.

Discussion

Findings from the analysis for research question one revealed that, out of the 10 tutor characteristics measured on tutoring support, the study found that eight of the characteristics were rated positively by the respondents. The two that were perceived negatively by the respondents could be that, first, the students are distance learners and may be intrinsically motivated to have enrolled on the programme and therefore may not require any motivation from the tutors. Nevertheless, motivation determines both activation and direction of every human behaviour and since every individual varies in the degree of intensity of their motivation, tutors need to motivate learns to meet their goals. Also, most of the learners may be experiencing frustration due to time constraints and other responsibilities and thus poor motivation can play a decisive role to dropout from the programme. Further, the findings revealed that 19 percent of the respondents have an intention to dropout of from school which could be attributed to lack of motivation from the tutors.
Second, per the nature of delivery mode of the distance programme, students are given the print-material to study at home and only come into contact with the course tutor twice in a month. Having gone through the module before coming for face-to-face tutorials, most of the students may not have questions to ask in class. Also, the unwillingness of tutors to encourage students to ask questions in class, may be due to the limited time assigned to courses during face-to-face tutorials. The inability of tutors to motivate learners to learn can also be a factor for not encouraging learners to ask questions in class. However, the overall findings revealed that the respondents had a positive perception towards tutoring support provided by the University. This finding is in agreement with the findings of Alisha (2016), Mustafa (2018), Segoe (2014) and Zhan et al. (2013), whose studies revealed a positive perception of students with the services of their tutors. The findings also confirm Kiguwa and Silva (2007) assertion that a tutor’s attitude towards students, is essential for academic success and helps to keep students in school until graduation. This was evidenced when the majority of the respondents are willing to remain in school because of their positive perception towards the tutor.

Further, the findings revealed a similarity with the findings of Segoe (2014) study where some respondents believed their interpersonal communication needs were not met by tutors. Both the findings of Segoe and that of this study revealed that, respondents were of the view that they needed information, particularly on how to form study groups, as well as how to plan their own workload, which were not provided by the tutors. All these could be attributed to lack of motivation from the tutors.

The second objective revealed that tutoring support is not statistically a significant predictor of students’ retention in distance learning. This may be due to the interplay of different factors that contribute to retention. An implication given by Mori (2015) was that, students’ retention was more likely to be dependent on other factors and not only on tutoring support. The finding from this research objective revealed inconsistent in the findings of Grillo and Leist (2013) and Segoe (2014), where a significant relationship exists between tutoring support and students’ satisfaction to remain in school. The inconsistency in the findings of these studies may be due to differences between individual student characteristics and their educational culture. However, the finding of this study is in agreement with that of Mori (2015) who did not obtain any statistically significant relationship between tutoring support and students’ retention.

Finally, the finding of the study to some extent is consistent with that of Kostina (2011) which revealed that autonomy, dialogue and satisfaction have significant correlation at the beginning and the middle point of the course. However, the relationship among them significantly decreased towards the end of the course. Moore (1983) believed that as the learner acquires expertise, the need for structure decreases and autonomy increases, and this leads to learning pattern of behaviours that are more constructivists. Participants in this study were in the second year of their study and they have a positive perception of tutoring, it shows that there is at least no transaction distance between them and the tutor. However, there are some implications from the present study for tutors who provide tutoring support to students on distance learning.

**Implications of the Findings to Tutors**

Prediction of students’ retention in distance learning has several implications. The present findings have student motivation implications. When motivation is applied to learning, it pushes the student to try to expand his/her energy in a particular direction. Tutors who provide tutoring support to distance learners need to motivate students to remain on the programme through encouragement and also involving them in the teaching and learning process. The teaching and learning activities should be more learner-centred. Beyond encouragement, the institution can offer periodic or yearly
seminars and workshops intended to increase students’ retention at the University to staff and students.

**Conclusion**

The findings of the study revealed that participants have positive perception towards tutoring support. However, the analysis of research objective two revealed that tutoring support is not a significant predictor of students’ retention in distance learning. It is important to note that, the original intentions of this investigation was to predict a relationship between tutoring support and students’ retention and not actual retention rates. Thus, although tutoring support was not a significant predictor of students’ retention in distance learning, the prediction of the model revealed that a unit increase in tutoring support will improve student retention by 1.42 times and the probability that a student who has a positive perception on tutoring support will stay on the programme is .83. The study concludes that management of the University should offer a periodic or yearly seminar and workshops intended to increase students’ retention at the University. Putting into consideration the benefits of students’ retention, a unit increase in any variable that can improve retention is commendable.

**Limitations**

Like other research, this study is not without a limitation. Its limitations are in two folds. First, the study was a predictive one and as such it is impossible to generalise. Second, the logistic regression model did not give a 100 percent prediction. This means that there may be equally other important characteristics of the tutor that were not considered in this study. Other studies should therefore try to look at other characteristics of the tutor such as critical thinking and counselling skills.

**References**


Tutoring support as a predictor of student retention in distance learning


