
Student Retention: How to keep them?

Frina Albertyn

Eastern Institute of Technology,
Napier,
New Zealand.
falbertyn@eit.ac.nz

This quality assured paper appeared at the 1st annual conference of Computing and Information Technology Research and Education New Zealand (CITREnz2010) incorporating the 23rd Annual Conference of the National Advisory Committee on Computing Qualifications, Dunedin, New Zealand, July 6-9. Samuel Mann and Michael Verhaart (Eds).

Abstract

Student retention is one of the more intricate issues of modern tertiary education. The purpose of this paper is to explore the reasons why first year Bachelor in Computing System students in one New Zealand institute of technology, continue their studies or leave after their first semester of study without completing their studies. This paper seeks to understand these reasons and to explore possible ways of retaining students who might consider withdrawing. It seeks to share with other institutes of technology these experiences and to find ways of improving retention rates at this institution. Some experiences from other institutes using existing published literature are explored. Students that withdrew in the first semester of study were telephonically interviewed. Their responses are discussed in the paper. Students that were retained were also interviewed and their responses are also analysed. Several interesting reasons were identified with both groups and are included in the discussion of the findings in the paper.

Keywords

Retention, Retention Rates, Completion.

Introduction

According to Tatham (2009) the Productivity Commission in Australia has estimated that for each year of additional education that a person undertakes – their earnings will increase by between 5.5% and 11.0%. There is therefore a huge economic benefit to countries and individuals if students can be encouraged

to continue and complete their studies and be retained for the full duration of their programme of study.

Student retention refers to whether a student in a program of study continues their studies until they have successfully completed a tertiary qualification (Education Counts, 2010) – which for this paper is the Bachelor of Computing Systems at the Eastern Institute of Technology (EIT), Hawke's Bay, New Zealand. In order to monitor this it is necessary to study the withdrawal rate – that is those students who left without completing their qualification. According to Education Counts (2010) retention can be one of the indicators of the efficiency or quality of the tertiary qualification. Tertiary institutions are under increasing pressure to improve student outcomes such as retention and completion (Zepke & Leach, 2005). The New Zealand government has made some changes to the funding structures for tertiary institutions which includes basing funding on the retention rate, which will impact on the Eastern Institute of Technology as well as all Polytechnics in New Zealand.

It is therefore important to understand that a range of factors play a role in whether a student continues their studies until completion. The purpose of this paper is to understand the different reasons why students stay or withdraw and to explore possible ways of retaining students who might consider withdrawing. The focus of this study was on a group of first year students who enrolled in 2009 into the Bachelor of Computing Systems (BCS) at the Eastern Institute of Technology.

Methodology

Tertiary education institutions in New Zealand need to take the issue of student retention and successful

completion of programmes by students very seriously (Grote, 2000; Zepke & Leach, 2005). A study conducted by the Ministry of Education showed that 19% of all students starting a bachelors' degree in 2007 did not complete the qualification and did not re-enroll in the following year (Education Counts, 2010).

In 2002, the New Zealand Ministry of Education commissioned a team from Massey University researchers to conduct a literature study to determine ways that tertiary institutions might improve their student outcomes and reduce withdrawals (Zepke & Leach, 2005). Figure 1, based on this research (Zepke & Leach, 2005), shows content criteria of how student environment support can impact on student satisfaction and results. It is apparent from this diagram that students need emotional and social support as well as academic support. A good induction seems to be suggested by a number of authors (Jefferson Community College, 2004; Zepke & Leach, 2005). Other suggestions from the literature includes setting up learning groups, setting up a mentoring system, engaging the students in class and meeting with them on an individual basis at regular time and treating all students fair (Jefferson Community College, 2004; Zepke & Leach, 2005). Tatham (2009) mentions that teacher engagement with the individual students are very important, that students need to have a clear understanding of the career they want to prepare for and that students should not fail or withdraw from any programme – and should be supported to help this happening. This last point mentioned by Tatham is the one that this paper is focusing on – what can we do to better retain our students?

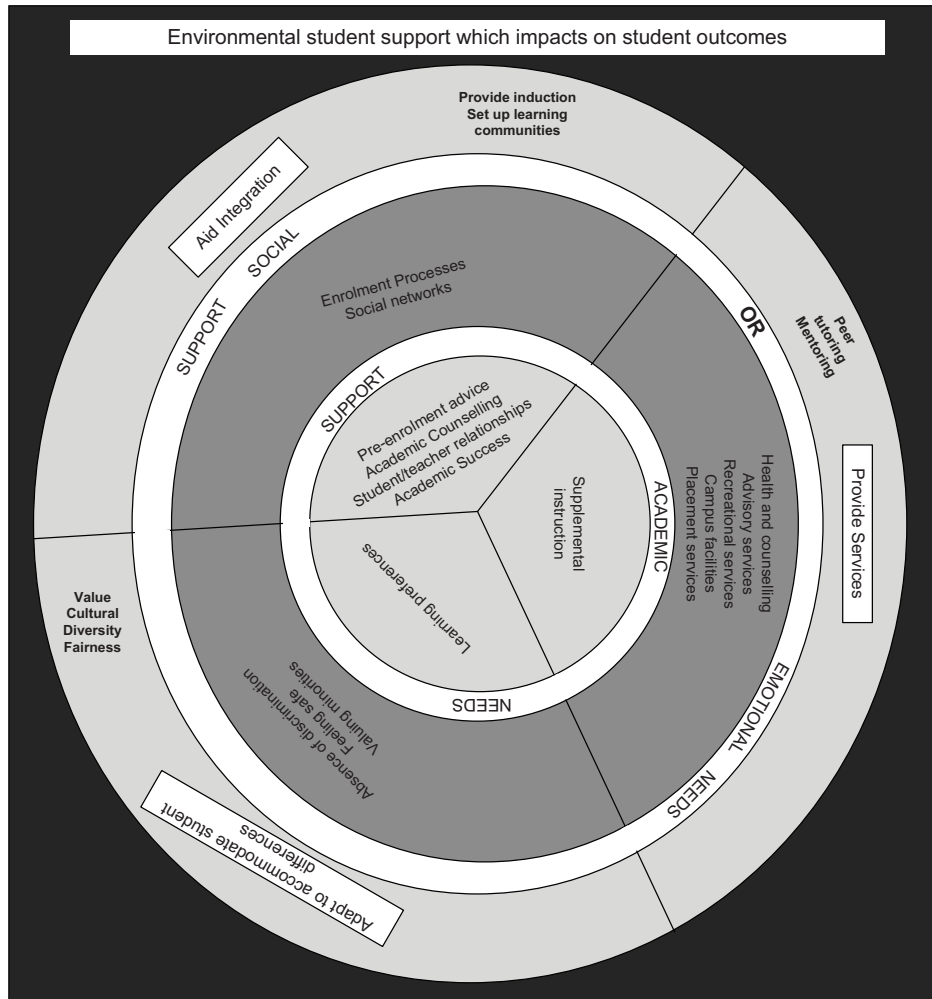


Figure 1. Content criteria (Based on Zepke & Leach, 2005)

It was decided that in order to obtain data on how to better retain our students and also because the lecturers in the computing school at EIT were worried about the withdrawal rate of a specific group of students, to conduct the research presented in this paper. The data used for this research was focused on a specific group, namely the first year 2009 Bachelor of Computing System students. It was decided to employ questionnaires to survey the respondents. A qualitative method was adopted with the use of open questions. Analysis was however executed on the results obtained to make it easier to draw conclusions.

It was determined that there are mainly 2 groups that had to be targeted in the research, namely:

- 2009 first year BCS students who withdrew in the first year of study (phase 1)
- 2010 second year BCS students who survived and were retained after their first year of study (phase 2)

It was decided that every student in the two above groups will be targeted in the research. It was also necessary to investigate other research that has been done in this area.

Once the research objectives were defined for the initial study, it was used as a basis for the development of the questions used in the questionnaire. The questions for the two phases had to be as similar as possible in order to allow analysis of the data. The number of questions also had to be limited as it had to be a questionnaire that could be completed in 5 minutes in an attempt to maximise the number of respondents

that were willing to participate in the exercise. This study is introductory and not comprehensive. Further research will be required to understand the environment better. A full comparison with other institutes will also need to be done in the future.

In phase 1 the marketing department of the Eastern Institute of Technology was approached to conduct interviews with the first year Bachelor of Computing students that withdrew from the programme in their first year of study. This consisted of a telephonic conversation to determine the answers to a set number of questions. The questionnaire was made up of five questions. These were:

1. Why did you enroll into the BCS degree?
2. Why did you withdraw from the programme?
3. Could EIT have done anything differently to prevent you from withdrawing?
4. What have you done since withdrawing?
5. Will you return to tertiary study in the future? Where?

There were 12 students that withdrew in their first year of study. An attempt was made to contact all of these students. The marketing department managed to contact nine of these students and all of them agreed to answer the questions.

In phase 2 the students in one of the second year BCS classes completed the questionnaire early in 2010. The

questionnaire was made up of four questions. These were:

1. Why did you study at EIT?
2. What did you do in the 2 years prior to enrolling at EIT?
3. Do you believe that you want a career in computing?
4. Are you glad that you chose EIT as your tertiary provider?

Sixteen students were retained and completed their first year of BCS study. All of these students were targeted – and 12 of these students completed the questionnaire.

In the next section the results obtained from this research will be discussed.

Results

Phase 1

As seen in the results of phase 1 in table 1, there are various reasons why students decided to discontinue their studies.

The analysis of question 1 shows that 5 out of the 9 (56%) students realized that they do not like computing as a possible career. These students should have been mentored to enroll into different programmes. Even the students that withdrew to go to

a “real university” or the army could maybe have been prevented from enrolling into the BCS if they were better supported in their choice at enrolment.

Analysis of question 2 shows that there were a number of reasons why students decided to withdraw from the programme. All of the reasons supplied were valid with no clear indication of anything that could have been done to prevent them leaving.

In question 3 all the students were adamant that there was nothing that EIT could have done to prevent them withdrawing. Question 4 showed that 67% of the students are currently working which includes the one student that joined the army. 17% of the students immediately went into another programme.

Question 5 shows that 75% of the students are planning to enroll into another programme or have already enrolled into another programme. This means that even when students withdraw they still have dreams to improve themselves by further study.

It is important to incorporate some of the points mentioned in the methodology paragraph such as setting up learning groups; setting up a mentoring system, engaging the students in class and meeting with them on an individual basis at regular time and treating all students fair. Also mentioned are teacher engagement and ensuring that students have a clear understanding of the career they are preparing for.

From this study it is clear that the students believe that there is not much that could have been done differently to retain them.

Table 1: Research results from BCS students that withdrew in their first year of study

BCS students that withdrew in their first year of study
Why did you enroll into the BCS degree? "Studied somewhere else – then tried BCS – want a break". "BCS was too difficult – switched to DipICT". <u>Five students said:</u> "Tried BCS – did not like computing". "Wanted to join the army". "Health reasons". "Wanted to go to a real University". "Lost funding".
Why did you withdraw from the programme? Going to Australia". "Personal reasons". "Want something easier". ""Heart not in the right place". "Wanted to join airforce". "Not interested". "Health reasons". "Wanted to go to Uni". "Left family home – funding ran out".
Could EIT have done anything differently to prevent you from withdrawing? The consensus here was that there was nothing that EIT could have done different to convince them to stay.
What have you done since withdrawing? <u>7students said:</u> "Working", <u>2 students said:</u> "Changed to another programme", "Joined Airforce", "Sickness benefit".
Will you return to tertiary study in the future? Where? 5 students are either already studying another programme at EIT or planning to return to EIT in the future. Three students are planning to study or already enrolled at another institute. Rest will continue working.

Phase 2

In phase 2 – the students that were retained and continued to their second semester are emphatic in stating that they believe they made the right choice. This can be clearly seen in Table 2.

Question 1 showed overwhelmingly that students choose EIT predominantly because of its location.

Question 2 indicated that 50% of the students enrolled directly from school and 50% had been in the work environment in the 2 years prior to commencing their studies. This indicates that these factors do not seem to play a role in their withdrawal.

Question 3 indicated that 50% of the students would like to go directly into a career in computing and 25% indicated that they would like to combine their computing career with a career in business. 16% of the students want to continue their studies before deciding what to do next and 9% want to go into secondary school teaching.

All of the retained students indicated that they were pleased that they chose EIT as their tertiary provider. Some of these comments can be seen in Table 2 under question 5.

The aim should be to improve student satisfaction in order to improve the student retention rate.

Table 2: Research results from BCS students that where retained after their first year of study

Retained BCS Students
<p>Why did you study at EIT?</p> <p><u>All but a few students said:</u> "Wanted to stay in Hawkes Bay". "Wanted to go to Uni but wanted a gap year – decided to kill time and study at EIT with scholarship– loved it". "Programme appeared very practical",</p>
<p>What did you do in the 2 years prior to enrolling at EIT?</p> <p>Half of the students worked the two years before their study and the other half was still at school.</p>
<p>Do you believe that you want a career in computing?</p> <p>Six of the students want a career in computing, one want to go into teaching, two want to continue their studies – one overseas and one want to try aviation, the rest want to combine computing with a business type of job.</p>
<p>Are you glad that you chose EIT as your tertiary provider?</p> <p>All said "yes". Some of the comments include "campus, lecturers and diversity is great", "I know people doing the same sort of programme elsewhere and they think they should maybe have come here too", "environment and staff great".</p>

As part of trying to improve student retention a mentoring system has since been introduced at EIT to mentor first year students. Each lecturer teaching on the degree is assigned between 5 and 10 students and meets with these students on a regular basis to build report and to identify any potential problems early. The number of students that have withdraw in the first semester of 2011 seems to have declined from the number that withdrew in 2010, but it is still a few weeks to the end of the first semester.

Conclusion

There are a number of challenges to retain students. At EIT it seems as though the lecturers are already doing their best to ensure that students get integrated into the group - academically and socially (Zepke & Leach, 2005). Some of the changes already implemented include a mentoring system, adapting teaching styles to accommodate different learning styles, strong emphasis on 21st century learning, ensuring strong online support, small classes with all lecturers engaging with students on a personal level.

The research into why students withdrew seems to indicate that the students believe that they would have made the decision to withdraw irrespective to anything that EIT would have done. It does however seem that by mentoring students better before the start of the programme it might be possible to prevent them wasting a semester on "a wrong career path". Literature also shows that there are a number of things that can still be done to improve retention rates.

Further research should be undertaken to compare the retention of students in different faculties and polytechnics to try and identify more problem areas that could be improved.

Acknowledgements

Interviews and data collection was done by the Marketing Department of the Eastern Institute of Technology.

Ethical permission was obtained through the Ethical Research Committee of the Eastern Institute of Technology.

References

- Education Counts (2010). *Tertiary Student Retention*. Retrieved on 2 March 2010 from http://www.educationcounts.govt.nz/technical_info/indicator_definition/student_participation/schooling/3949.
- Jefferson Community College. (2004). Ideas to encourage student retention. Retrieved on 27 April 2010 from <http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/studretn.htm>
- Grote, B. (2000). Student Retention and Support in Open and Distance Learning. Working Papers. Open Polytechnic. Retrieved on 12 March 2010 from <http://repository.openpolytechnic.ac.nz/view.php?pid=openpoly:62>.
- Tatham, P. (2009). *Using career development services to strengthen student retention and attainment*. Retrieved on 2 March 2010 from <http://www.ed.psu.edu/educ/cscdpp/policy-papers/>

CICA_Career%20development%20services%20and%20student%20retention%20Report_feb2009_final.pdf

- Zepke, N. & Leach, L. (2005). Integration and adaptation *Sage Journals Online: Active Learning in Higher Education*, Vol. 6, No. 1, 46-59. Retrieved on 2 March 2010 from <http://alh.sagepub.com/cgi/content/abstract/6/1/46>.