

# The Influence of Teaching Satisfaction on Student Persistence

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## Abstract

This paper examines the influence of satisfaction with teaching experiences on students' intentions to persist in higher education. The research is relevant as the influence of an individual educator's teaching practice on student persistence has at this point been undervalued (McCoy and Byrne, 2010; Demaris and Kritsonis, 2008). In addition there is literature support that teaching approaches that are satisfying and inclusive for the student body including active learning can influence student persistence (Zepke et al., 2006; Pascarella and Terenzini, 2005; Braxton et al., 2000b). A mixed-methods case study utilising a questionnaire (n=84) as well as five focus groups and twenty-eight interviews were undertaken. A moderate to strong correlation between satisfying teaching experiences and educational commitment was found ( $r_s=.56$ ). Qualitative data provided additional supporting evidence for the quantitative finding. Furthermore, it identified a student preference for active learning as well as indicating that its social nature is an influence on the social integration of students which in turn has been linked to student persistence (Braxton et al., 2000b; Tinto, 1993). The implications of this research are clear in outlining support for the role of teaching and active learning as an influence on student persistence. This is an important addition to the current body of knowledge on student persistence and a development of the research literature in an Irish context.

**Keywords:** student persistence, student retention, active learning, teaching

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## 1. Introduction

While acknowledging the difficulties in the interpretation of retention statistics (RANHLE, 2010; Mooney et al., 2010) the Higher Education Authority of Ireland (HEA) (HEA, 2014) reports an average non-progression rate by new entrants in Irish higher education of 16%. While a student's departure may be in their best interests (Tinto, 1982) a degree of non-completion is preventable and it is the responsibility of a college to retain their students (Yorke, 1999). Thus this research attempts to answer the question, can satisfying teaching experiences influence student persistence?

The role of teaching and its influence on persistence is one which it can be argued has been under researched (Demaris and Kritsonis, 2008; Tinto, 2000). For example, as part of the most comprehensive piece of work undertaken to date in Ireland on student completion, McCoy and Byrne (2010, p. 42) acknowledge that the data they presented does not include the more 'subjective information' such as the influence of academic engagement and views on teaching staff. Satisfaction with the academic and pedagogic quality of teaching is argued as a crucial determinant of student satisfaction (Wiers-Jenssen et al., 2002) which in turn is linked to student persistence (Schreiner, 2009). Pascarella and Ternzini (2005) outline that the evidence indicates that satisfied students have a lower drop-out rate than students who feel less content. Furthermore, student satisfaction may also have student recruitment benefits having being linked to positive recommendations (Elliott and Healy, 2008).

This study is of further relevance with the changing nature of higher education, which has moved from educating a small and limited number in society to a mass enterprise (Fleming et al., 2010). The increased access to higher education has contributed to a diversification of the student population (HEA, 2011). This diversification of the student population includes increased numbers of mature students and low socio-economic status students, all of which could be described as non-traditional students (McCoy et al., 2010; HEA, 2008). Furthermore, students in higher education are becoming more 'consumer oriented' than ever before and demanding of satisfaction from their institution of choice (Schertzer and Schertzer, 2004). Thus while there is significant research evidence that life outside the classroom is crucial to student persistence (Pascarella and Terenzini, 2005) the teaching and learning experience becomes ever more important (Hunt, 2010).

In summary, it is argued that with an increasingly diverse and demanding student population and still developing body of knowledge that a focus on the teaching and learning experience of students has merit. A review of relevant literature will provide a theoretical framework for the study.

## 2. Theoretical perspective

### 2.1 An introduction to student persistence literature

Berger and Lyon (2005) explain the earliest studies of student retention began in the 1930s with a more developed field of study arising in the late 1960s. Researchers have conducted studies using economic, organisational, psychological and sociological theoretical perspectives (Braxton and Hirschy, 2005). Given the significance of the issue, the history of the field of study and the many perspectives used to understand the phenomena, it is no surprise then that there is 'voluminous' literature (Tinto, 2005).

However a review of literature highlights that few of the factors linked to persistence can be influenced by the individual educator in a higher education institution (Pascarella and Terenzini, 2005). While there is an extensive body of research linking effective teaching and academic outcomes there is only a 'small body of evidence' linking the quality of teaching to persistence (Pascarella et al, 2008, p. 57).

### 2.2 Tinto's model of student persistence

The influence of the classroom and more specifically satisfaction with the teaching experience is placed within the context of Tinto's (1975, 1993) model of student persistence. Tinto's (1975, 1993) integrationist theory, which has proven highly influential, broadly proposes that students enter college with a variety of personal characteristics, pre-college school experiences and family backgrounds which influence the development of educational commitment and thus persistence or withdrawal from college. Furthermore, Tinto's (1975, 1993) model proposes that given the prior characteristics of the student, and their prior educational commitments it is the individuals level of academic and social integration into the college that directly relates to new educational goal commitments and institutional commitments and thus to persistence or withdrawal from college (Tinto, 1975, 1993). While

the model has been subject to a significant critique (Longden, 2004) empirical studies are largely, but not unanimously supportive of Tinto's model (Brunsdon et al., 2000). An aspect of the model that has received strong support is the link between social integration and persistence (Braxton et al., 2000a). Tinto (1975, 1993) outlines social integration refers to the congruence between the individual and the social system of the educational institution. It reflects a student's perception of their congruence with the attitudes, values, beliefs, and norms of the social communities of a college, as well as his or her degree of social affiliation. Social integration can occur primarily through informal peer-group associations, semi-formal extracurricular activities and interactions with faculty and college administrators (Tinto, 1975) and has been argued as more related to early departure from higher education than academic reasons (Harvey et al., 2006).

### 2.3. Teaching and Persistence

Tinto's (1975, 1993) model provides the framework with which to understand how satisfying teaching experiences are related to student persistence. Thus in a single institutional study involving a quantitative survey of 696 first year students Braxton et al. (2000a) found support for the classroom as a potential source of influence on social integration and thus student persistence. The authors argued that students who experience faculty teaching skills such as organisation, preparation and clarity that are positively linked to a student's achievement in their college course will result in students more likely to invest the 'psychological energy' necessary to establish membership in social communities. In essence, if students are academically well integrated they are likely motivated to integrate socially. Furthermore, students who experience teaching skills linked to positive academic outcomes will also likely devote more time to building relationships as they may be more relaxed and confident about their studies. Finally, students who experience effective faculty teaching skills such as organisation, preparation and clarity will also potentially build friendships through appropriately managed classroom activities such as group work. In an extension of this work by Pascarella et al. (2008) in a single-institution quantitative study with a sample of 1,353 students it was found exposure to organised and clear instruction among year one higher education students increased the likelihood of re-enrollment into year two. Their analysis specifically found that the exposure to organised and clear instruction increases the likelihood that a student is 'very satisfied' with their education and this satisfaction influenced persistence.

Similarly, Braxton et al. (2000b) also propose that faculty teaching techniques such as active learning may serve as a basis social integration. Bonwell and Eison (1991, p. 2) provide a definition of active learning as an instructional method "... involving students in doing things and thinking about what they are doing". Prince (2004, p. 1) uses the contrast of active learning to the traditional lecture where "... students passively receive information from the instructor". The benefits of active learning have been well documented (Exley, 2010; Higgs and McCarthy, 2005). According to Braxton et al. (2000b) the pattern of findings in a longitudinal study of 718 full-time first year students indicated active learning may constitute an empirically reliable source of influence on social integration, subsequent institutional commitment and departure decisions. Braxton et al. (2000b) proposed a similar theoretical framework to Braxton et al. (2000a) in explaining the results of the study and the relationship between teaching activities and persistence. That is students who experience the academic rewards of active learning are more likely to invest the psychological energy in integrating socially. Furthermore, Braxton et al. (2000b) suggested that as a result of the effectiveness of active learning students may be more likely and have more time to devote to making and developing friendships as well as finding active learning activities helpful in the integration process.

Braxton et al. (2008) developing on the preceding work of Braxton et al. (2000b) this time with a multi-institution sample concluded that faculty use of active learning practices play a significant role in the retention of first year college students. The findings indicated that active learning practices shape the perception among students that the educational institution is committed to their welfare and this motivates the student's degree of social integration and following from this their institutional commitment and thus persistence. Pascarella and Terenzini (2005) in a review of literature also link classroom activities to institutional commitment and persistence. The evidence includes statistically significant and positive net effects of active learning activities. Pascarella and Terenzini (2005, p. 406) explain experiential and inquiry-based learning promotes "... students' active involvement in their own learning, increased and more meaningful interaction with faculty members". The authors explain that evidence on the effectiveness of such programs is just beginning to emerge but it indicates that the mix of student-faculty contact and active learning is relatively potent with respect to persistence and degree completion. Furthermore, Thomas (2008) presented a series of case studies outlining that learning, teaching and assessment strategies play a role in student retention. Thomas (2008) explained that active group learning promotes classroom interactions with the benefits of integration into higher education and an impact on retention.

In an Irish context Healy et al. (1999) in their study of three Institutes of Technology found students who left were more critical of the teaching with the principal suggestion of improved contact between students and teaching staff.

#### 2.4. Teaching, student diversity and persistence

Having reviewed evidence that teaching approaches can influence student persistence there is also evidence that it can be an effective approach for a more diverse study body. Cartney and Rouse (2006), in a qualitative study, explain that as the diversity of the study body militates against social and academic inclusion in college life the role of teachers in promoting social integration becomes increasingly important. More specifically small-group learning represents one of the few points of contact. This process, the authors (2006, p. 80) argue can "... facilitate more rewarding learning and teaching, thereby fostering student potential and promoting progression and retention". Similarly, Tierney (1999) pointed out that when minority college students are able to affirm their own cultural identities, their chances of graduation increase. This affirming of the cultural identity of students can take place if the structure of the education students receive involves a commitment to academic and social goals and active learning (Tierney, 1999).

Studies support this adaptation of teaching approaches as an influence on persistence. For example, Read et al. (2003) undertook a study of an urban university in the UK conducting 33 focus groups with 175 students and among the implications the authors propose is a need for initiatives to focus on cultural aspects of educational institutions including methods and styles of teaching. Independent learning, the 'distance' between the lecturer and student and students as 'subordinates' in the academic hierarchy were highlighted as cultural aspects that students can experience as alien and unsettling (Read et al., 2003). Similarly, Laing and Robinson (2003, p. 184) conducted an ethnographic study of the withdrawal of non-traditional students and concluded that "a more appropriate model of non-completion must give greater attention to the underlying nature of an institutions teaching and learning environment". Additionally, Zepke et al. (2006) conducted a multiple case study approach in seven educational institutions in which a total of 681 students completed a questionnaire. The findings from the research suggest teaching approaches, flexibility in accommodating learners and the institutional climate are factors in retention. Zepke et al. (2006, p. 598) explain:

*In short our data suggest that learner-centredness improves retention where students feel they belong in an institutional culture, where they experience good quality teaching and support for their learning and where their diverse learning preferences are catered for.*

Reflective of the need for educational institutions to adapt to students Tinto's more recent writings have focused on the conditions in which students are placed in educational institutions (Tinto, 2009). Thus rather than a focus on student attributes or deficiencies it is the conditions in the educational institutions that he deems important to student success. For example Tinto (2009) argues students are more likely to persist in environments that foster learning. Thus students who are actively involved in learning and who spend more time learning especially with others are more likely to persist (Tinto, 2009).

It is proposed from this review of the literature that teaching approaches that are satisfying for the student body will have an influence on student persistence (Pascarella et al., 2008; Read et al., 2003; Laing and Robinson, 2003).

### 3. Methodology

The research question for the present study 'Does satisfaction with the teaching experience influence a student's intention to persist in Higher Education?' formed part of a broader study into student persistence undertaken on the campus of a higher education institution (HEI). To address the particular research question a mixed methods case study of a higher education campus in the south of Ireland utilising interviews, focus groups and a questionnaire was undertaken. Five focus groups (with twenty-four participants) and twenty-eight interviews were undertaken over an academic year for a total of fifty-two qualitative contacts. Table 1 outlines the research methods employed.

Table 1 Research Methods

5 focus groups that included a total of 24 students at the start, mid-point and end of an academic year
10 students interviewed during the academic year
14 students who withdrew from the HEI campus interviewed post the academic year
4 teaching faculty interviewed
84 students responded to a questionnaire at the end of an academic year

The interviews and focus groups with students could be described as semi-structured in nature and focused explicitly on the influences on students' motivation to persist in higher education including the influence of teaching approaches, active learning and social integration. For example, individual students were asked 'Do you think the teaching methodology employed in [the particular HEI Campus] is related to the intention of students to persist?'. The interviews and focus groups took place with students in their first year in higher education, a purposive sample in light of literature that identifies it as period critical to student persistence (Yorke, 2000; Tinto, 1988). The interviews with students and focus groups took place at various points over an academic year to gain an understanding of the students' experiences as the academic year progressed. Ten attending students were interviewed, nine of these students were interviewed in group interviews with two to three students attending. Of the first year students who voluntarily withdrew from the HEI campus fourteen students were found to be contactable and agreed to be interviewed over the phone. The teaching faculty interviewed were programme directors and thus were judged to have sufficient insight into student persistence. Miles and Huberman (1994) provided a framework for the analysis of the qualitative data a process that can be summarised as firstly involving data reduction techniques followed by data displays to aid analysis and the subsequent drawing of conclusions. Lincoln and Guba's (2007) trustworthy criteria of credibility, transferability, dependability and objectivity were operationalised in the study to ensure the quality of qualitative data.

A questionnaire was distributed at the end of the particular academic year achieving 84 responses, 54% of the first year students registered full-time on the particular campus of the HEI. In the questionnaire three items developed by the researcher were utilised to measure students' satisfaction with the teaching experience. These items were developed to assess if a student's expectation of the teaching experience was matched by an evaluation of the reality and thus the student would indicate their satisfaction or on the other hand dissatisfaction (Demaris and Kritsonis, 2008). To measure the intentions of students to persist the Educational Commitment scale was adapted from Pascarella and Terenzini (1980) which has been utilised in a significant number of studies of student persistence (Braxton et al., 2000a). Both scales contained negatively worded items to limit response bias. Details of the questionnaire tool developed are presented in Table 2.



Table 2 Details of the questionnaire

Data collected	Details
Demographic data	Relevant factors to provide a profile of respondents.
Satisfaction with teaching experiences scale	<ol style="list-style-type: none"> <li>1. I prefer the teaching experiences of this Campus over other teaching experiences I have had.</li> <li>2. In general I am satisfied with the quality of the teaching I have experienced so far.</li> <li>3. I am not satisfied with the teaching experiences of this Campus.</li> </ol>
Educational Commitment scale	<ol style="list-style-type: none"> <li>1. It is not important to graduate from this campus.</li> <li>2. I am confident I made the right decision to attend this campus.</li> <li>3. It is likely that I will enroll at this college next year.</li> <li>4. It is important for me to graduate from college.</li> <li>5. Getting good results in assessments is not important to me.</li> </ol>

The questionnaire was distributed to students in paper format via teaching faculty on their academic programmes subsequent to a pilot test taking place. The data collected was appropriately prepared for quantitative data analysis (Field, 2009). The Cronbach alpha's for the Satisfaction with teaching experiences scale was .65 and for the Educational Commitment scale was .69. Cronbach's Alpha tests the reliability or internal consistency of a scale by measuring the extent to which all the items measure the same concept. Field (2009:679) indicates a range of 0.7 to 0.8 is acceptable. However, for some exploratory studies .6 can be tolerated (Hair et al., 1998) and with short scales, of less than ten, alphas of .5 are common (Pallant, 2001). Spearman's rank order correlation, a non-parametric test used as an alternative to the most commonly utilised Pearson correlation, was used to correlate the scales. Non-parametric tests do not depend on assumptions about the precise form of the distribution of the sampled populations (Bryman and Cramer, 2005) and thus deemed appropriate for the analysis of the data.

The main goal of the research study was to find answers to the research question but answers are only acceptable if they ensured the well being of the participants (Teddlie and Tashakkoris, 2009). The researcher would describe the present research as a minimal risk project that did not involve 'serious' ethical issues where participants experienced stress beyond what they have in their everyday lives. (Teddlie and Tashakkoris, 2009; Bryman, 2008). Nevertheless, it was crucial to be aware of ethical concerns in the research. The researchers own personal code of ethical practice was brought to the research as well as being informed by relevant institutional ethical guidelines which include; research which can be of benefit to participants, respecting the dignity and privacy of all participants, honesty and openness with participants, involvement of all significant individuals, negotiation, reporting of progress, confidentiality, authorisation of access, sensitivity and good relations (TCD, 2006-07; IT Carlow, 2011a, 2011b).

The research took place 'inside' the researcher's own HEI institution however the research focus, research design and use of findings were not as a result of discussion or negotiations with the HEI institution or it's representativeness but entirely of the researchers own choice in a research relationship "... conducive to high professional standards" (British Sociological Association, 2002:6). Furthermore, the data was reflected on with the potential for participants being constrained in their contributions or for bias in responses.

#### **4 Findings**

The research question for the present study is 'Does satisfaction with the teaching experience influence a student's intention to persist in Higher Education?'. Thus students in the questionnaire were assessed as to their level of satisfaction with the teaching experienced and their educational commitment, a measure of student persistence. Table 3 presents the details of the responses.

Table 3 Questionnaire responses

		Strongly Agree %	Agree %	Neither Agree/Disagree %	Disagree %	Strongly Disagree %	Mean	Standard Deviation
Satisfaction with teaching experiences scale	1. I prefer the teaching experiences of this Campus over other teaching experiences I have had <sup>1</sup>	22.6	36.9	33.3	7.1	-	2.25	.89
	2. In general I am satisfied with the quality of the teaching I have experienced so far	16.7	72.6	7.1	2.4	1.2	1.99	.67
	3. I am not satisfied with the teaching experiences of this Campus	3.6	4.8	6.0	45.2	40.5	4.14	.98
Educational Commitment Scale	1. It is not important to graduate from this campus <sup>2</sup>	8.5	4.9	24.4	25.6	36.6	3.77	1.24
	2. I am confident I made the right decision to attend this campus	50.0	34.1	11.0	3.7	1.2	1.71	.89
	3. It is likely that I will enroll at this college next year	61.0	23.2	7.3	6.1	2.4	1.66	1.02
	4. It is important for me to graduate from college	73.2	20.7	2.4	1.2	2.4	1.39	.81
	5. Getting good results in assessments is not important to me	6.1	3.7	11.0	29.3	50.0	4.13	1.14

The Likert items in the Satisfaction with teaching experiences scale in general indicate students were satisfied with the teaching experiences with most preferring it over other teaching experiences. In the first item, six out of ten students agreed they preferred the teaching in the campus over other teaching experiences. However, the first item also has a third of students unsure whether they prefer the teaching in the campus. Item two indicates that almost nine out of ten students are satisfied with the quality of teaching experienced. Item three is a negatively worded statement, the opposite of statement two, in which 86% of respondents disagreed that they were not satisfied. Thus items two and three indicate satisfaction with the teaching experiences.

Responses to the Educational Commitment Scale show over 84% of respondents' stated they agreed with items 2 and 3 indicating strong institutional commitment. Item 1 is less convincing in the unanimity of strong institutional commitment, with 13.4% of

respondents indicating that it is not important to graduate from the Campus and 24% who 'neither agree nor disagree'. However, goal commitment is extremely high in responses to item 4 and still very persuasive in the negatively worded item 5.

To explore the relationship between experiences of teaching and intentions to persist the three statements investigating the teaching experience of students presented in Table 3 were aggregated in a scale. This scale was correlated with the Educational Commitment scale, developed from the five statements in Table 3. The result indicates that a medium correlation between teaching experiences and educational commitment exists ( $r_s = .56$ ,  $p < .01$  (2-tailed),  $n = 82$ ). Thus indicating satisfying teaching experiences are related to students' having stronger educational commitment.

In addition data qualitative data was analysed to explore the influence of teaching experiences on student persistence. Two broad themes were identifiable in the data; firstly, students indicated that satisfying teaching experiences influence persistence and secondly, students have a preference for active learning which in turn can aid the process of social integration. Each of these themes will now be outlined.

The first theme in the qualitative data indicated that satisfying teaching experiences influence student persistence. For the purposes of the research the teaching experience was defined quite broadly as encompassing the teaching approach, the assessment methods and the programme workload.

Satisfying teaching experiences appeared to influence Amelia's motivation. She comments on the positive impact the range of teaching approaches she experienced had:

*I think changing activities from essays to presentations and group projects gave a good balance and helped me to keep going.*

Satisfaction with the assessment approaches utilised by teaching faculty could also be interpreted as influencing student persistence. For example, the use of continuous assessment early in the academic year had a positive impact on Amelia's persistence

intentions:

*I did well in the first essay and that was a big motivation because I was at a point where I was thinking what am I after doing this for ... I was on the verge of [leaving] ...*

The system of continuous assessment gives confidence and takes the pressure off according to Brenda:

*I think, its you know, with all the work we do throughout the year and assessments and everything, you know, when you go on to the exam you know you've part of it already completed. You could have passed something already. I think that helps to motivate ... I think that motivates students a lot.*

While satisfying teaching experiences appeared to influence persistence the opposite dissatisfying teaching experiences appeared related to weaker educational commitment was also interpreted from the data. Eddie, a mature student, explains his frustration with independent learning was a key factor in his departure:

*I know third level is different than other levels but it's like you just got no help at all. It was all down to yourself ... you're given ... certain lectures and whatever and then you just go off and do your own thing. That's fair enough but we didn't even get that. There was no direction at all really; well that's what I felt.*

Similarly, a limited understanding of the course content was identified as influencing the attendance and motivation of Brenda:

*... if your like in a class if you don't really understand anything you are not going to be motivated to sit there for an hour and try and do it because if you can't do it once you won't be able to do it again.*

Assessments can also have a negative impact on a student's motivation according to Phoebe:

*And with assignments and all I am motivated but I'm kind of getting the same marks throughout everything, so I was kind of now saying I don't want to do it because I am going to get the same thing anyway ...*

The academic workload involved in a programme, part of the teaching experience of a student, also appears to influence student persistence. For example, Kate found the course workload de-motivating and influencing her intentions to persist:

*... all the work that we have to do ... that would stress you out and you just want to quit and stop doing everything.*

A Course Director comments on the course workload influencing persistence:

*I think some students are surprised by the amount of hours for a start in first year. So there's a certain amount of they feel they're overworked ... I think some of them think that they just have to turn up and everything will be put on plates for them and what they realise ... there's quite a big commitment from their own part. There is a lot of additional work that they've got to do outside of structured class hours and I think that's quite often the reason [for student withdrawal].*

The Course Director's comment recognises the potential impact of a student undertaking independent learning and the course workload on student persistence.

While students and teaching staff acknowledged in interviews the influence of satisfying teaching experiences it was one of multiple factors identified that influence student persistence. Thus of the fourteen students interviewed who voluntarily withdrew half indicated they had more than one reason for withdrawing with many students having multiple reasons. Thus four students indicated they withdrew due to illness. Three students explained they were not happy with their course choice. Difficulties in managing college with employment and with commuting were each stated twice as a reason. Related to the focus of this particular research study on the teaching experience; a lack of academic support, quality of teaching, the management/administration of the course and the approach of teaching staff were all stated once. The following were also indicated once as reasons for withdrawing; pregnancy, poor relationships with other students, inadequate college facilities, the feel of the college and family circumstances. Thus the teaching experience is just one of the multiple factors that can influence student persistence.

The second broad theme in the qualitative data was that students had a preference for active learning approaches. Active learning approaches were found by students to be engaging as well as an aid in the process of social integration with their peers and teaching faculty. For example, Joan explains discussions motivate as opposed to passive teaching experiences:

*I prefer ... to be doing stuff instead of like just sitting there listening to stuff. Discussions like they motivate me but then again when you're just listening, your just like what am I doing?*

Margaret describes the engaging nature of classroom discussions:

*... I find the way things are taught here ... very good, that you're not talked at. You're more included in the way things are being taught. Your opinion is being asked and it's discussed out rather than someone just saying 'this is the way it is' without teaching.*

Megan also explains she prefers more active engagement with the lecturer:

*... like I don't like the way like some lecturers come in and just write on the board and expect you to know, to be able to understand what it is, I prefer if they were actually able to interact with you like and explain it to you and come down and help you do it like.*

The social nature of active learning was highlighted in the qualitative data. For example, Brenda comments on the confidence building and socially integrating experience of group work:

*I think when we do the group work, you get to know each person's personality and then that gives you ... more confidence to make friends with them ...*

Similarly, a Course Director explains how when students work together on a project the benefit is not just academic but also results in students getting to know and supporting each other:

*I do believe that if they actually get to know each other and get over the politeness of just hello and actually get stuck into a project together then you have the chance of some real bonds happening and out of those bonds those students become their own support network.*

In summary, the findings of this research appear to indicate that satisfaction with the teaching is related to a students' persistence intentions. Furthermore, active teaching/learning approaches were preferred and appeared to aid the process of social integration.

## 5. Conclusion

This study found there is a moderate to strong relationship between teaching experiences and educational commitment ( $r_s=.56$ ). That is satisfaction with teaching experiences and high educational commitment, a measure of student persistence, are related. Qualitative data similarly linked satisfaction with the teaching experience with the intention to persist in higher education. Thus exposing students to teaching that they find satisfying has implications beyond enhanced learning and can be linked to the persistence of first year students in higher education (Pascarella et al., 2008). Furthermore, qualitative data linked active learning to engaged and motivated students and indicated these learning experiences provided a potential for social integration to take place in the classroom, an acknowledged influence on persistence intentions (Pascarella and Terenzini, 2005; Braxton et al., 2000b). In addition, satisfying student-centered learning approaches, including active learning, have been argued as a way to reach all students and not just under-represented groups in higher education (Thomas, 2008). In summary, the individual educator, their teaching methodologies, their ability to facilitate active learning and its social impacts appears relevant to student persistence.

While the findings of the present study appear plausible, that satisfying teaching influences student persistence, alternative explanations for the findings are possible as no causality is proven. For example, students whether they persisted or not may have been satisfied with the teaching. Furthermore, the significance of the findings must be viewed in the context of the large body of research literature that seeks to explain student persistence and its opposite withdrawal. The influences on student persistence are multi-factorial in nature (Braxton and Hirschy, 2005) thus any examination of the teaching experiences of students must have an awareness that they are also a reflection of an individual's psychology, their background and family circumstances. The multi-factorial and unique individual nature of student persistence that sees one student continue and another withdraw in similar circumstances makes any attempt to solve the issue complex. However, satisfying teaching approaches including active



learning appear to make a difference.

While this is a single-institution study thus placing limitations on the generalisability of the findings the consistency the findings appear to have with other studies suggests a number of practice and policy implications for HEIs and their teaching faculty. Thus for HEIs aiding the development of teaching faculty in their teaching practice makes institutional sense. Thus workshops, seminars, and training courses that assist faculty in developing their teaching practice are likely to lead to not only better academic outcomes but better persistence outcomes. Furthermore, policies may be required within HEIs to facilitate and encourage the development of good teaching practice in areas such faculty recruitment, promotion and continuing professional development. In addition, the dissemination of research evidence that teaching practices influence persistence can also facilitate the creation of a climate in HEIs that teaching matters (Tinto, 2002). It goes without saying that institutions that clearly communicate the value they place on good teaching practices increase the likelihood that teaching faculty undertake them. In addition, as faculty and their teaching practices appear to play a role in student persistence institutional retention strategies thus need to include faculty and their teaching practices. For teaching faculty the findings demand a reflection on their current teaching practices as well as their continuing professional development. While it is acknowledged that larger lecture style classes can present difficulties for teaching faculty in making the learning active and in some cases satisfying solutions may include making large lectures active, utilising tutorials and online methods. In summary, the implications of the research are that higher education institutions should focus on students' teaching and learning experiences (Yorke and Longden, 2004).

Teaching and learning should be the focus of future research including the influence of various teaching approaches on persistence. These efforts will be rewarded with an increased understanding of persistence, better retention rates and increased student learning. The possibilities for similar research on a greater scale are compelling.

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[1] The number of responses (n) to statements 1-3 on the Satisfaction with teaching experiences scale was n=84.

[2] The number of responses to statements 1-5 on the Educational Commitment Scale was n=82.

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