

The Effects of Formal Mentoring on the Retention Rates for First-Year, Low Achieving Students

Geri Salinitri

In this two-year study, we evaluated a formal mentoring program by examining the retention rate and program satisfaction of first-year university students who volunteered to participate. Mentors were Intermediate/Senior preservice teacher candidates, invited to take an additional credit class relating to Teacher Advisor Programs in Ontario Secondary Schools. The retention rates and grade point averages (GPA) of participating students (experimental group) were higher than those for the control group, consisting of first-time students with similar programs of study and exiting secondary school averages (i.e., < 75%). In written comments, students suggested program satisfaction and noted its effectiveness.

Key words: social learning theory, theory of involvement, social capital theory

Dans cette étude d'une durée de deux ans, l'auteure a évalué un programme de mentorat en examinant les taux de rétention et le degré de satisfaction des étudiants de 1^{er} cycle qui ont accepté d'y participer. Les mentors étaient des stagiaires en enseignement de niveau intermédiaire ou supérieur invités à prendre un cours à option associé au programme d'enseignants-guides (maîtres associés) dans les écoles secondaires ontariennes. Les taux de rétention et la moyenne cumulative des étudiants (groupe expérimental) étaient supérieurs à ceux du groupe-témoin, composé d'étudiants de 1^{er} cycle inscrits dans des programmes d'études semblables et ayant eu des moyennes comparables à la fin de leurs études secondaires (c.-à-d. < 75 %). Dans leurs commentaires écrits, les étudiants semblaient satisfaits et soulignaient l'efficacité du programme.

Mots clés : théorie de l'apprentissage social, théorie de l'implication, théorie du capital social.

Over the last decade, there has been a surge of formal mentoring programs among universities to consider student retention. Many such studies (Astin, 1993; Bean & Eaton, 2002; Carter, 2000) have used graduation as an indicator for retention. Others (Berger, 2002; Fleck,

2000; Tinto, 1987; Wild & Ebbers, 2002) have identified student completion rates as a fundamental measurement of an institution's success in meeting student needs. Research into the factors that impact persistence (program completion) is crucial for institutions to develop appropriate policies and practices to enhance retention. To add to the research on program completion, I have focused this study on the impact of mentoring on the retention of first-year students.

As students enter university, they find factors that adversely affect their transition from high school to university, for example, new found independence, homesickness, time management, finances, or different teaching styles. Further, because of the demands of a knowledge-based society, students from various cultures, socioeconomic backgrounds, different learning styles, or with low entrance grades are entering university. As a result, several factors affect student success: inability to meet university academic standards, inability to adapt to a new social and academic environment, changes in personal goals and aspirations, lack of motivation and clearly defined goals, priority of other commitments such as work or family, financial difficulty, or incongruence between an institution's orientation and approach and that desired by an individual (Lang & Ford, 1992).

These factors translate into a need for increased academic and personal counseling programs to improve student retention, particularly for low-achieving students, defined, for the purpose of this study, as students with secondary school exiting averages of 70 per cent or less. Because compensatory universities accept these lower achieving students to give them opportunity, and to increase their own government funding, they need to make students' transition from high school to university fluid by providing them with the skills, knowledge, and confidence necessary to successfully fulfill their degree requirements. These students are a particular challenge because they may have poor study habits, study alone, often do not seek help, or know how to seek help. In other words, they often find themselves dropping out in the first year because they were unable to seek and acquire tools for success. Nagda, Gregerman, Jonides, Von Hippel and Lerner (1997) found that most students, including academically achieving students, enter university unprepared for the required level of

work and often need assistance to acclimate to a new environment. Such students have naïve notions about the scope of undergraduate education, especially about where it should lead and what is expected of them.

For this study, I evaluated a formal mentoring program at the University of Windsor for first-year, low-achieving university students (T.I.M.E.: Teachers' Interfaculty Mentorship Efforts). I designed the T.I.M.E. pilot mentoring program to enhance students' first-year experience and to retain them through a mutually beneficial relationship between mentor and protégé/mentee. Using the expectations of the Ministry of Education document for secondary schools in Ontario, *Choices into Action* (1999),¹ I developed the pilot to include preparing teacher candidates in the Faculty of Education as mentors for first-year students. The program complemented the University's existing retention programs offered through the Faculties of Arts and Social Sciences and Science (e.g., University 101² SIRC [student information resource center], STEPS [skills to enhance personal success], and "turnaround" and "probation" workshops). In particular, The University of Windsor offers University 101 as an introduction to the purposes and processes of university education, emphasizing the skills and strategies needed to make a successful transition to the academic and cultural environment. Students who are admitted with less than program requirements (64%-70%) are required to take this course. It is also recommended for most undeclared majors and students who did not get into their first-choice program. Any first-year student can take this course as a credit option.

The formal mentoring pilot program that I designed is an added bonus for students because of its one-on-one relationship. It helps students build on the skills that are indicated in the course objectives. In addition, students build skills in self-concept and networking. The interfaculty support for this pilot-program was intended to support the undergraduate faculties to build collaboration and strengthen the goals of retention of first-year students.

REVIEW OF LITERATURE

Research on Retention

Research on student retention at university has significant relevance because of the considerable competition for students among colleges and universities, resulting in acceptance of students with varying skills in many of the compensatory universities (Paul, 2001; Peltier, Laden & Matranga, 1999). Compensatory universities view retention as part of the educational process, with transition programs to address academic, personal, and social experiences (Hicks, 2005).

The theoretical frameworks dominating retention research were developed in the 1970s. Astin (1974) developed his theory of involvement, contending that students related learning and retention to their involvement within an institution. He argued that true involvement required the investment of energy in academic relationships and activities related to the campus. The most compelling generalization derived from Astin's (1993) finding was the pervasive effect of the peer group on an individual student's development. Cognitive, affective, psychological, and behavioural development were all affected by peer group characteristics. Also, Astin (1993) found that two faculty characteristics had substantial and wide-ranging effects: the extent to which the faculty is research-oriented and the extent to which it is student-oriented, with the former having negative effects and the latter positive effects. In short, he found that learning, academic performance, and retention were positively associated with academic involvement, involvement with faculty, and involvement with student peer groups.

Extending Astin's (1974) development of this comprehensive theory of involvement, Tinto (1987) developed the theory of student departure, the most commonly cited theory of student persistence. In a longitudinal model of institutional departure, Tinto attributed an individual's decision to continue attending an institution to pre-entry attributes, the student's goals and commitments, academic and social institutional experiences, and academic and social integration. With this model, Tinto distinguished individual factors from institutional factors. Tinto found that the structure of an institution of higher education influenced

students in their decision making, as did their social and intellectual integration.

American and Canadian universities have recognized student retention as a critical issue since the early 1970s (Hicks, 2005; Strommer, 1993). In the United States, it was discovered through The College Testing Program (American College Testing Program, 2002) that students entering private and public higher education institutions in 2002 experienced dropout rates of 25.9 per cent and 25.1 per cent respectively within the first year. Despite the fact that more students are entering university, only 41.9 per cent earn a degree within 5 years. According to Statistic Canada (2005), only 30 per cent of the population with an average age of 22 graduated in 2001 with a bachelor's and/or their first professional degree (e.g. engineering).

Researchers (Braunstein & McGrath, 1997; Nagda, Gregerman, Jonides, von Hippel & Lerner, 1998) have found that most students, including students with high averages, enter university unprepared for the required level of work and often need assistance to acclimate to the new environment. They go to campus with a set of needs that must be addressed in university so that they may succeed (Strommer, 1993). Key researchers (Astin, 1993; Nagda et al., 1998; Tinto, 1993) found that student difficulties in identifying with, and connecting to, the academic and social cultures and subcultures within an institution can lead to poor academic performance and eventual withdrawal.

Mentoring and Retention

For almost 175 years, institutions of higher education have expressed concern about the retention of first-year students (Levine, 1991; Hicks, 2005). According to Hicks, researchers have studied college students in their first year for two reasons: the first year shapes subsequent persistence and the largest proportion of institution leaving occurs in the first year. Some institutions have developed programs for first-year students to deal with such issues as academic achievement, academic persistence, and graduation programs (Levine, 1991; Tinto, 1993; Greene & Puetzer, 2002), that included intensive orientation, developmental course work, advising, counselling, or mentoring (Brown, 1995; Capolupo, Fuller & Wilson, 1995; Strommer, 1993; Hicks, 2003). In

particular, researchers (Strommer, 1993; Tinto, 1993) realized that critical components of successful first-year programs included academic advising, orientation, support programs, tutoring, supplemental instruction, first-year seminars, skills development programs, mentoring programs, and placement testing.

Although the implementation of first-year programs is a response to a national concern regarding decreasing rates of retention, further research is needed to evaluate national initiatives (Colton, Conner, Shultz & Easter, 1999; Hicks, 2003; Johnson, 2001; Pitkethy & Prosser, 2001). Fleck (2000) noted that progress has been made in identifying which student characteristics are predictors of students leaving prior to graduation. Unfortunately, the ability to predict academic performance and retention sufficiently and accurately remains limited (Hicks, 2005). According to Fleck, gaps exist in the research on the role students' perceptions and expectations play in retention rates.

According to Colton et al. (1999), success of intrusive intervention programs demands a critical evaluation of retention needs and the target population (demographically) of the adopting institutions. These researchers considered the following intrinsic components required for adoption of intrusive intervention programs such as a formal mentoring program: the philosophy of intrusive interventions, the fostering of positive faculty/staff-student interactions, the use of a well-designed, comprehensive advisement component, the use of an appropriate colloquium, and the use of extrinsic rewards.

Mentoring is about creating an enduring and meaningful relationship with another person, with the focus on the quality of that relationship including such factors as mutual respect, willingness to learn from each other, or the use of interpersonal skills. Mentoring is distinguishable from other retention activities because of the emphasis on learning in general and mutual learning in particular. Typically, student-mentoring programs match senior-level students or staff members with first-year students. Results from several studies on mentoring in higher education (Carter, 2000; Fowler & Muckert, 2004; Webb, 1999) support the value of student-mentoring programs in assisting students with their adjustment to university, academic performance, and/or persistence decisions. The program that I piloted

presents a unique relationship in higher education. In this program, Faculty of Education students, who have received their first degree, mentor first-year students. The education students receive credit and develop pedagogical strategies while the first-year students develop academic and social skills to adapt to their new environment. In this relationship, both the mentor and the mentee take responsibility for making the most of the learning activity. For the relationship to work, there needs to be a tangible value component for both the mentor and the mentee, grounded in social learning and social capital theories.

The purpose of this study was to examine the impact of mentoring on first-year students. These questions guided my research:

1. What are there differences in retention rates, cumulative GPA's, or number of courses failed in a year between students who participated in a mentoring program and comparable students who did not participate in a mentoring program?
2. Are mentored students satisfied with the outcomes of the program?

METHODOLOGY

Using the University of Windsor's Student Information System (SIS), with permission from the Registrar and the consent of the students involved, I collected the exiting high-school averages of those participants who volunteered for the program and who had been verified as fitting within the range of the study parameters. I then used the SIS to select the control group by randomly selecting first-year students who had comparable exiting high-school averages. For both groups, the experimental (mentored group) and the control group (the majority of whom were taking a foundational course in skills development), I used a database to compare students in both groups: the number of courses that each student failed in both semesters, the grade point average at the end of each semester, and the students' academic status. Academic status refers to students as being in good standing, on academic probation, or required to withdraw from their program. I gave the Mentor Assessment Survey (Cohen, 1998) to the experimental group to provide a descriptive analysis of the program

from their perspective. Participants responded to a series of questions using a Likert Scale rating.

Participants

There were 128 participants in the study (56 in the mentored group and 72 in the control group or non-mentored group). Of the 56 participants, 34 were mentored in year one (2001) of the study and 22 were mentored in year two (2002). Similarly, 53 students in the control group entered in year one of the study and 19 in year two. All subjects were in first year of post-secondary education. The mentors for this program were 50 teacher candidates from the Intermediate/Senior division of the Faculty of Education, who received in-service as mentors through a credit course.

Mentees – Experimental Group. The participants were volunteer high-school graduates with entering averages at the lower limit (approximately 70%) accepted in the Faculties of Arts and Social Sciences and Science. I recruited these participants at the early orientation program, Head Start, and/or through the Academic Counselling offices of the faculties involved. Although we initially intended to focus on students with averages at the lower limit for admission (approximately 70%), for ethical reasons I allowed any student who applied to participate. Those participants in the program who entered with averages above 75 per cent were not included in the analysis.

Non-mentored – Control Group. The participants were high-school graduates accepted in programs in the Faculties of Arts and Social Sciences and Science. I selected these students to match the volunteer group from the database of admissions (SIS) for first year. They remained anonymous, identified only with their student numbers, and sorted by their entrance averages from high school, academic program, age, and gender.

Mentors. These individuals were Faculty of Education teacher candidates in the Intermediate/Senior Division with qualifications to teach subjects from the Faculties of Arts and Social Sciences or Science. Initially each received a letter inviting her or him to volunteer for the program as part of the General Methodology (course on pedagogical principles) requirements. These preservice teachers had already obtained at least an undergraduate degree, and some, a Master's degree. These

teacher candidates were interviewed and matched by discipline with one or two mentees.

The mentors were enrolled in a credit class that examined theory and practices of mentoring, advising, and social learning. The course assisted the candidates in the effective delivery of Ontario's Guidance and Career Education curriculum, with an emphasis on providing the resources to develop students' educational, social, and career exploration skills. The topics of the course included The Annual Education Plan (AEP), the Role of the Teacher in the Teacher Adviser Program (TAP/TAG), The Identification, Placement and Review Committee IPRC process and its correlation to the Individualized Education Plan (IEP), the Ontario Schools Intermediate and Senior Division OSIS Program and Diploma Requirements document and, *Choices Into Action* (Guidance and Career Education Program Policy for Ontario Elementary and Secondary Schools) Document (1999). Instructional approaches were designed to reflect current methodology in teacher advisory programs and the guidance program established in schools in Ontario in 1999.

In teaching the course, the mentoring program became part of the mentors' field experience course requirement. The mentoring component of the course was considered the field practicum. Other requirements included mentors' documenting their sessions in a journal including the topic, their actions, and the follow up consequences of the meeting. The mentors were required to assist mentees in enhancing their learning while motivating them to set realistic educational and social goals. The mentors wrote reflective summaries of the experience; the mentees assessed the mentors' skills. Further, mentors presented to their peers a research project on topics arising from issues in mentoring.

RESULTS

Impact on Student Learning

To evaluate the effect of the mentoring program, the performances of students in the experimental group (mentored students in the 2001 and 2002 cohorts) were compared to the three control groups (2001 cohort, 2002 cohort, and a second control group with no experience with University 101²). This second control group was not mentored and was not enrolled in a learning skills course; they did not self-select for help

with the transition as compared to the other groups. I tracked participants' overall GPA, the GPA in their major, their academic status, and the number of courses failed. As a working hypothesis, I predicted that the mentoring program would have a positive effect on first-year, low-achieving (entering with a GPA of < 75%) students in terms of cumulative GPA for both semesters, reduced number of failed courses, and increased retention in the following year as identified by their year-end academic status. (See Table 1)

Table 1
Incoming Averages for the Mentee Groups and the Control Groups

	N	Mean Per Cent	SD
Mentee 2002	22	72.13	6.26
Control 2002	19	73.00	6.92
Mentee 2001	34	69.95	5.66
Control 2001	53	66.78	4.45
Second Control	31	68.42	11.99

GPA. Preliminary analyses, as arrayed in Table 1, indicated that the groups differed in terms of their incoming averages, $F(4, 149) = 4.09$, $p < .01$. To control for this difference in averages, we used the average as a covariate in all subsequent analyses. In addition, gender was not a relevant variable because the test scores (First Semester GPA, Final GPA) were comparable for males and females in the two-way MANCOVA, $F(2, 138) = .42$, $p > .1$, and the gender distribution was comparable in the groups, $\chi^2(4) = 7.72$, $p > .1$. The gender variable was considered in the first analysis and found non-significant; it was therefore not considered in subsequent analyses. Also, there were no differences with respect to the mentees' faculty (Science or Arts and Social Sciences).

In this principal analysis, the significant main effect for Group in the MANCOVA, $F(8, 278) = 3.25$, $p < .001$ was evident in the subsequent univariate F-values for both First Semester GPA, $F(4, 139) = 6.54$, $p < .001$, and Final GPA, $F(4, 139) = 5.93$, $p < .001$. The post hoc analyses, (LSD) for the First Semester GPA showed that the Mentee 2002 group did better (mean = 6.78) than the control 2002 group (mean = 5.6), $p < .05$, the control

2001 group (mean = 4.4), $p < .001$, and the second control group (mean 4.24), $p < .001$. Similarly, the Mentee 2001 group did better (mean = 6.24) than the control 2001 group (mean = 4.4), $p < .01$, and the second control group, (mean = 4.2), $p < .001$. For the Final GPA, the Mentee 2002 group did better (mean = 6.74) than the second control group (mean = 4.5), $p < .001$, and the 2001 control group (mean = 4.6), $p < .001$, but not the 2002 control group (mean = 5.73), $p > .05$. The estimated marginal means for the groups with respect to the covariate are reported in Table 2.

Table 2
Estimated Marginal Means for GPA (First Semester and Final GPA)

GPA	Group	Est. Mean	Letter grade Equivalent
First Semester	Mentee 2002	6.55	C
	Control 2002	5.32	C-
	Mentee 2001	6.19	C
	Control 2001	4.62	D+
	Second Control	4.37	D+
Final GPA	Mentee 2002	6.32	C
	Control 2002	5.47	C-
	Mentee 2001	6.28	C
	Control 2001	4.78	D+
	Second Control	4.61	D+

As may be seen in Table 2, the students in the mentored groups did much better in semester 1 than students in the control groups. The proportional gain with mentoring appears quite dramatic. In semester 2, although no differences occurred among the three control groups, the mentored group in 2002 did better than the second control group so a mentoring effect was evident. That the mentored group did not perform better than the 2002 control group may be due to a modest impact on the 2002 control group from the University 101 course. The impact was not sufficient to distinguish the 2002 control group (that is, the University 101 course) from the second control group (a non-remedial group) but

the University 101 intervention may have contributed to the diminished mentoring effect with respect to the 2002 control group.

Failing Courses. In terms of failing courses in the first semester, a statistically significant difference occurred between the experimental groups (mentored) and the control groups (non-mentored), $\chi^2(4) = 14.13$, $p < .01$. In fact, for students experiencing failure of at least one course ($N = 66$), the numbers were high in the control group (Control 2002 = 42.9%; Control 2001 = 55.6%, second Control = 50.0%), whereas 19.2 per cent of the 2002 mentored group, and 25.7 per cent of the 2001 mentored group failed courses. In the second semester the difference was significant, $\chi^2(4) = 14.58$, $p < .01$, but the pattern was more complex. For students experiencing failure ($N = 48$) 31, or 65 per cent, were in the control groups, yet the value for the mentored group 2002 (failure rate = 15.4%) was not lower than the control 2002 (failure rate = 9.5%) but was lower than the second control (failure rate = 19.2%). The University 101 program may be impacting the failure rate, positively, by the second semester. Perhaps, then, the mentor program has its most dramatic impact in reducing failure in the early part of students' university career.

Student Status. The data for group standing (see Table 3) show a statistically significant difference in the number of students in good standing between the five groups, $\chi^2(8) = 38.16$, $p < .001$. Of those in "good standing" in the mentored groups, rates of 88.5 per cent in the mentored 2002 group and 71.4 per cent in the mentored 2001 group were found. In the control groups the rates ranged from 57.1 per cent in the control 2002 group to 23.1 per cent in the second control group. The mentor program seems to have a dramatic positive effect with respect to retention. Moreover, the control groups from University 101 seem to experience greater retention rates than the second control group. The mentoring program would appear to be a value-added program.

Mentor Effectiveness as Perceived by Mentee

The mentor effectiveness survey (Salinitri, 2004), which contained 28 Likert-scale statements, was completed by 16 randomly selected mentees. The results reflected the positive outcomes of the mentoring program. Mentees reported that all mentors provided them with

Table 3
Status of Students in the Five Groups

Group		Good Standing	On Probation	Required To Withdraw
Mentee 2002	Count	23	3	0
	% within Group	88.5%	11.5%	0%
Control 2002	Count	12	6	31
	% within Group	57.1%	28.6%	4.3%
Mentee 2001	Count	25	7	3
	% within Group	71.4%	20.0%	8.6%
Control 2001	Count	19	18	18
	% within Group	34.5%	32.7%	32.7%
Second Control	Count	6	13	7
	% within Group	23.1%	50.0%	26.9%

encouragement to express their feeling about academic and social experiences related to university.

The mentees found that the mentors were very effective in acting as facilitators of resources within the university. Mentors taught time management skills and helped students design their schedules. This was noted as being very important to the mentees. Mentors were very effective in helping mentees to develop study strategies and other ways to improve academic performance. As for personal advice specific to the mentee, the mentor effectiveness was only 62 per cent. This may imply that the mentors were complying with the recommendations of the course instructor to act as a facilitator and determine the resources on campus that would best meet the mentees' needs. However, the mentees did find the mentors effective with verbal communications for concerns expressed by the mentees. The mentees also found the mentors to be

very good at providing guidance in exploring realistic options and attainable academic and career objectives. And as role models in sharing their own experiences, all mentors were found to be effective.

When dealing with issues of self-efficacy (self-esteem, self-confidence) not all mentees found the mentors to be effective. Only 68 per cent of the mentees found that they could discuss their feelings of self-efficacy. In fact, mentees reported that 19 per cent of the mentors did not discuss feelings of anxiety, self-doubt, or anger, even though these topics were mandated in the mentors' program requirements.

Overall, 50 per cent of the mentees found the mentors to be effective in all areas of mentor function. More than 80 per cent reported them to be effective in areas of skills development, facilitation, providing resources, and in providing strategies for academic improvement.

Program Satisfaction as Perceived by Mentees

The program was designed to create a mutual learning environment, where mentees developed skills for academic and personal success while mentors developed skills that are transferable to teaching and coaching. Persistence in the mentoring program and the university appeared to be linked to development of skills. In her journal, one mentor noted "She still has her good attitude and work skills. She seems more confident than last term."

All mentees and mentors identified access to resources as an important aspect of the mentoring program. During an interview, a mentee stated: "There [are] a lot of people who have no idea where they're going with academic advice right now. I think it's a great program. It kept me on track."

Mentees who appeared adjusted (not having concerns) and were persistent with the program found that they had developed a friendship with their mentor and their peers. One mentee stated "we're friends now. Sometimes she calls just to see how I'm doing and if I want to come out with her and her friends." Another affirmed, "My mentor was my friend. At first she was like the big sister who got to high school before you did and showed you the ropes, letting you know what courses and Profs to look out for, then as you became more comfortable told you

about the best clubs and events to attend." A third mentee who became a mentor in her final year made the following comment

This is an excellent program. I am glad that you have it here. I wouldn't have bothered going through the workbooks or going to workshops on my own. The push is very good. I'm doing pretty good. I know where I am going with what I want to do. It may sound confident but if I don't know I can ask Heather (mentor). I came in with poor grades and now I am in good standing, surprisingly. (Stephanie-mentee)

The mentorship program is a mutual learning experience for all participants. Success is measured not only by the academic achievement of the mentees, but also by the increased personal confidence.

DISCUSSION

Strategies for increasing student retention are among the current issues facing universities. Universal recognition of higher education as a prerequisite to success implies an increasing demand for a university education for everyone (Paul, 2001). Students with relatively low proficiency levels entering university have been consistently targeted to be at risk for dropping out. The findings from this study show that mentoring as an intervention for students with low proficiency levels has a dramatic affect on retention. It was found that none (in 2002) and 8.6 per cent (in 2001) of the experimental group were required to withdraw whereas 4.3 per cent (in 2002) and 32.7 per cent (in 2001) of the control group and 26.9 per cent of the second control group (group with no intervention) were required to withdraw from their programs. These data confirm Tinto's (1993) belief that academic and social involvements play a role in current theories of student retention.

Conversely, having 88.5 per cent (in 2002) and 71.4 per cent (in 2001) of the mentored students in good academic standing at the end of the first year as compared to 57.1 per cent (in 2002), 34.5 per cent (in 2001) and 23.1 per cent (second control) of the control group suggests that mentored students will enter second year with an improved proficiency level.

The findings of this research provide evidence for a successful formal mentoring program for first-year low achieving students. Primarily, statistically significant evidence provided evidence that the mentoring program increased the students' overall GPA and their major

GPA. Mentored students failed fewer courses in the first semester and their academic status was dramatically better than that of students enrolled in the University 101 transition course who proved to have an advantage over comparable students not enrolled in formal intervention programs. Overall the achievement levels of mentored students were higher than those enrolled in University 101 which were higher than comparable students not receiving intervention. These data lend support to the research linking mentoring and overall academic success (Grissom, 1998; Kerka, 1998; Pascarella & Smart, 1991). Analyses of the data suggest the success of the program in terms of mentee and mentor satisfaction with the outcomes of the program. As Flaxman (1988) noted, mentors helped their mentees through motivation and facilitation in acquiring skills for success. As well, the results indicate the importance of involvement with the institution and peers as postulated in Astin's (1993) theory of involvement.

Mentoring is both a learning process and a teaching process. The mentor/mentee relationship is one of mutual benefit. In this pilot mentoring program, participants established a community of practice (Wenger, 1998) that reflects the pursuit of academic success, skills development, and social relations. Learning is taking place through social engagement. The mentee receives the guidance and awareness of the skills needed for transition from high school to university, while the mentor gains field experience in facilitating learning through a transition phase. The student mentor is synonymous with socialization and relational learning. I suggest that matching teacher candidates with at risk, first-year students through a credit course provided a unique formula for a formal mentoring program. It implies a cost effective system for retention. It ensures academic success without a financial burden on the institution. Students remained in the relationship for mutual and exclusive benefits. The mentee benefited extrinsically with improved academic status while the mentor benefits through an experiential learning course credit. According to one mentor:

The mentorship program is having a profound effect on my personal philosophy as an educator. I have developed skills, along with my mentee, at a personal level that can translate into a classroom setting and be applied to the whole class easily and effectively. These skills will benefit the students and myself equally and immensely. (Ian –mentor)

ACKNOWLEDGEMENTS

I acknowledge the Dean of the Faculty of Arts and Social Science, Cecil Houston, the Dean of Science, Richard Caron and the Dean of Education, Pat Rogers, for their collaboration in this project. Special acknowledgement goes to Dr. Larry Morton who assisted in the statistical analysis. I would also like to acknowledge Sophan Tan and Melissa Moro for their recruitment of mentees to the program and input into the program.

NOTES

¹ “To help students as they move from elementary to secondary school and as they make decisions about secondary school courses and future goals, a teacher-adviser program will be established in schools for students in Grades 7 to 11. Each principal will assign teachers to act as teacher-advisers, who will each have regularly scheduled contact with students for a minimum of one academic year. Although a teacher-adviser program is required for students in Grades 7 to 11, schools may also establish such a program for students in Grades 1 to 6 and Grade 12.

Through participation in a teacher-adviser program, students will demonstrate:

goal-setting, planning, and decision-making skills; research and information management skills (including locating and accessing human and information resources) required for education and career planning; the skills and knowledge needed to monitor their academic progress”. (Choices into Action, 1998)

² University 101 is a course at the University of Windsor designed especially for first year students. It is committed to providing students with a solid foundation for learning. It is also a springboard for further student success. In North America, it has been demonstrated that students who complete such courses as University 101 are more likely to graduate successfully. They also tend to feel more confident and supported during their time at university. At the University of Windsor, University 101 has been running for four years. We invite all first year students to take advantage of this opportunity for academic success and fun.

REFERENCES

- American College Testing Program. (2002). *National College Dropout and Graduation Rates, 1997*. Retrieved May 27, 2005, from <http://www.act.org/news/04-0d1b98.html>
- Astin, A. W. (1974). *Preventing students from dropping out*. San Francisco: Jossey-Bass.
- Astin, A. W. (1977). *Four critical years*. San Francisco: Jossey-Bass.
- Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco: Jossey-Bass.
- Bean, J., & Eaton, S. (2002). The psychology underlying successful retention practices. *Journal of College Student Retention* 3(1), 73-89.
- Berger, J. (2002). Understanding the organizational nature of student persistence: empirically-based recommendations for practice. *Journal of College Student retention* 3(1), 3-21.
- Braunstein, A., & McGrath, M. (1997). The retention of freshmen students: An examination of the assumptions beliefs, and perceptions held by college administrators and faculty. *College Student Journal*, 31(2), 188-200.
- Brown, A. (1995). New advisement system at Baker University. *The Freshman Year Experience Newsletter*, 7 (3). 6.
- Capolupo, R. F., Fuller, R., & Wilson, L. (1995). Retention at Drexel University: A look at a successful model. *The Act 101 Journal*, 2(2), 8-9.
- Carter, J. A. (2000). Empowerment groups: A creative transition and retention strategy. In J.A. Chambers (Ed). *Selective papers from the 11th International Conference on College Teaching and Learning* (pp. 43-50). <who is the publisher?>
- Choices into Action, (1998). Ontario Ministry of Education Document Services. Retrieved January 12, 2006, from <http://www.edu.gov.on.ca/eng/document/discussi/choices.html>
- Cohen, N. H. (1998). Principles of Adult Mentoring Scale: Postsecondary Education. Adaptation to the organizational context by Marie-Helene Douville c.o. Université du Quebec à Montreal.
- Colton, G. M., Connor, U. J., Shultz, E., & Easter, L. M. (1999). Fighting attrition: One freshman year program that targets academic progress and

- retention for at-risk students. *Journal of College Student Retention*, 1(12), 147-162.
- Flaxman, E. (1988). Youth mentoring: Programs and practice. *Urban Diversity Series*, 97, 257-268.
- Fleck, P. (2000). Expectations, academic performance, and retention of undergraduate engineering students. Unpublished doctoral dissertation, Kent State University. *Dissertation Abstracts International*, 61(07), 2618A.
- Fowler, J., & Muckert, T. (2004). Tiered mentoring: Benefits for first year students, upper level students, and professionals. A paper presented at HERDS Conference, 2004. Retrieved on May 26, 2005, from herdsa2004.curtin.edu.my/Contributions/RPapers/P042-jt.pdf.
- Greene, M., & Puetzer, M. (2002). The value of mentoring: a strategic approach to retention and recruitment. *Journal of Nursing Care Quality*, 17(1), 63-70.
- Grissom, C. B. (1998). Perceived effects of a formal mentor program on undergraduate students at a small liberal arts college (Doctoral dissertation, Indiana University, 1998). *Dissertation Abstracts International*, 981806. AAT984 1806.
- Hicks, T. (2003). First-generation and non-first-generation pre-college students' expectations and perceptions about attending college. *Journal of College orientation and Transition*, 11(1), 5-19.
- Hicks, T. (2005). Assessing the academic, personal and social experiences of pre-college students. *Journal of College Admission*, (186), 19-24, Eric #: EJ682486
- INFO, The guidance page. Ontario Universities' Application Centre. Retrieved January 12, 2005, from http://guidance.ouac.on.ca/info/prog_update.html
- Johnson, J. (2001). Learning communities and special efforts in the retention of university students. *Journal of College Student Retention: Research, Theory and Practice*, 2(3), 219-238,
- Kerka, S. (1998). New Perspectives on mentoring. *ERIC documents*, digest no. 194.
- Lang, M., & Ford, C. (1992). *Strategies for retaining minority students in higher education*. Springfield, IL: Charles C. Thomas.

- Levine, A. (1991). *Perspectives on the freshman year*. Columbia, SC: National Resource Center for the Freshman Year Experience.
- Ministry of Education. (2005). *University key performance indicator*. Retrieved January 12, 2006, from <http://www.edu.gov.on.ca/eng/general/postsec/uindicator.html>
- Nagda, B. A., Gregerman, S. R., Jonides, J., Von Hippel, W., & Lerner, J. S. (1998). Undergraduate student –faculty research partnerships affect student’s retention. *The Review of Higher Education*, 22(1), 55-72.
- Pascarella, E. T., & Smart, J. C. (1991). Impact of intercollegiate athletic participation for African American and Caucasian men: Some further evidence. *Journal of College Student Development*, 32, 123-130.
- Paul, R. (2001). State of the University Address. University of Windsor. Retrieved March 23, 2002, from <http://www.uwindsor.ca/stateoftheu>
- Peltier, G., Laden, R., & Matranga, M. (1999). Student persistence in college: A review of research. *Journal of College Student Retention*, 1(4), 357-375.
- Pitkethly, A., & Prosser, M. (2001). The first year experience project: A model for university-wide change. *Higher Education Research and Development*, 20(2), 185-198.
- Salinitri, G. (2004). T.I.M.E. – The teachers’ interfaculty mentorship efforts: An quantitative and qualitative evaluation of a formal mentoring program for at-risk first-year university students. Unpublished doctoral dissertation, Ontario Institute for Studies in Education of the University of Toronto.
- Statistics Canada. (2005). *Education indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2003*. Retrieved on May 25, 2005, from <http://www.statcan.ca/english/freepub/81-582-XIE/2003001/educ.htm>
- Strommer, D. (1993). *Portals of entry: University colleges and undergraduate divisions*. Columbia, SC: National Resource Center for the Freshman Year Experience.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student retention*. Chicago: The University of Chicago Press.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student retention*. Chicago: The University of Chicago Press.

- Webb, C. (1999). *Academic Development Unit: The first two years. A report on activities: 1998-1999*. Richmond, VA: Academic Development Unit, Centre for Higher Education Development, University of Western Sydney, Hawkesbury.
- Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. New York: Cambridge University Press.
- Wild, L., & Ebbers, L. (2002). Rethinking student retention in community colleges. *Community College Journal of Research and Practice*, 26(6), 503-519.