



Factors Impacting Student Service Utilization at Ontario Colleges: Key Performance Indicators as a Measure of Success: A Niagara College View

By David Veres

Abstract

Student success in Ontario College is significantly influenced by the utilization of student services. At Niagara College there has been a significant investment in student services as a strategy to support student success. Utilizing existing KPI data, this quantitative research project is aimed at measuring factors that influence both the use of student services and their identified level of importance. The correlational analysis revealed that student service utilization is (a) not associated with commuting time, (b) less for those working for pay, and (c), in the case of tutoring and academic advising, of heightened importance for those caring for dependents. Service model offerings are discussed within this context.

Introduction

The concept of student success and the role that student services play in this success have long been discussed at colleges in both Canada and the United States. Scholars have identified numerous factors both inside and outside the control of the institution that facilitate student success and retention (Bean, 1981; Braxton, 1999/2000; Kinzie & Kuh, 2004; Tinto, 1975; Tinto, 2005; Zepke & Leach, 2010). Of these, campus support services have been identified as activities that contribute to student success, and ones that are valued by the students (Dietsche, 2012).

In Ontario colleges the issue of student success has been discussed since the 1970's. Graduation rates in Ontario colleges have risen from 55% in 1999 to 65.4% in 2013, but have virtually been unchanged since 2007 where the rate was 64.9% (Colleges Ontario, 2014). Despite an awareness of low retention rates and a focus on the financial and human capital impacts of this concern, very little progress has been made in improving these rates (Drea, 2004).

The purpose of this research was to measure student use of support services and their rating of importance in relations to external factors that impact on the students' time. Through an examination of the use and importance of the Library/Resource Centre service, Tutoring services, Academic Advising services and Personal Counselling services in relation to external factors of work, travel time and family responsibilities that impact on demands on students' time, this paper will identify the nature of the relationship between these factors. For the purpose of this study a focus on the relationships that exist at Niagara College has been used.

The key research question asked is as follows: given that external factors such as work for pay, travel time to school, and caring for family compete for college students' attention, what is the relationships between time commitments to these factors in relation to both use and perceived

importance of the library/resource centre, tutoring, academic advising, and personal counselling support services? Several sub questions have been designed to guide the research.

- Do students who use one service tend to use other services?
- Does the academic level and gender of the students impact the relationship between services and external factors?

In conducting this research there was an attempt to discern the relationship between student use of specific college services and the identified external factors that place demands on student time. Niagara College was chosen for this research as the institution has demonstrated a high interest in student satisfaction, as evident in its KPI result. As well Niagara College has demonstrated a high level of engagement and support for looking for ways to continually improve the level of service they provide to students.

Literature Review

While not limited to this correlation, student retention and eventual graduation is often referred to as student success. Student success has many definitions, and various institutions may include components of personal, academic, and social development when identifying a meaning for themselves. With the myriad of variables that lead to the selection and admission to a post-secondary institution, and the uniquely different nature of a college environment, it is not surprising that the dropout rate in the first year of school is higher than at any other point in a student academic journey (Pascarella & Terenzini, 1980; Finnie, Frenette, Mueller, & Sweetman, 2010; Finnie, Mueller, Sweetman, & Usher, 2008). Retention activities that occur in the first year of post-secondary education are the ones that stand to have the greatest success (Upcraft, Gardner, & Barefoot, 2005). The principles of retention strategies include programs that are; committed to the programs that they serve, focused on opportunities for all and not just some students, and allow for the development of supportive social and educational communities in which all students are integrated as competent members (Upcraft, Gardner, & Barefoot, 2005).

Influencing Factors

Factors that influence first year retention focus on both student and institutional characteristics as outlined by Tinto (1975). The student's prior experiences, academic performance, level of commitment, family background, and individual attributes all play a role in the student's ability to integrate both academically and socially (Tinto, 1975; Tucker, 1999). Institutional characteristics such as size, composition of the student body, academic quality, and the types of supports for both academic and social integration have been identified as influencing retention (Tinto, 1975). The importance of these factors is further support by later work on the first year experience and its relationship to student engagement (ASHE Higher Education Report, 2007; Bean, 1985; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Kuh, 2008).

In the more recent studies (Kuh, 2008; Upcraft, Gardner, & Barefoot, 2005) the factor of student characteristics has been replaced with student

behaviours and institutional characteristics replaced with institutional conditions. In broad terms, the elements of student behaviour include areas such as study habits, peer involvement, interaction with faculty, time on task, and motivation. Institutional conditions include first year experience, academic support, campus environment, peer support, teaching and learning approaches, and others (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Additionally there are external factors that impact on the social system that makes up a college community. Government policies, accountability requirements, demographics, and even the broader economic climate have an influence of the environment that determines student engagement (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Student engagement is driven by the students willingness to put time and effort into their activities, as well as the institution's willingness to deploy its resources in support of the student (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Upcraft, Gardner, & Barefoot, 2005). The education environment is a complex one in which the college experience and student engagement is influenced by both factors internal and external to the system (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006, p.32)

From these influencing factors institutions have developed programs, activities and support services that are aimed at increasing student retention. The supports are generally classified as academic and non-academic. Academic programs focus on increasing first year GPA, as it has been found that students with a higher GPA are less likely to drop out (Lotkowski, Robbins, & Noeth, 2004; Tinto, 1975). Non-academic activities related to academic self-confidence, goal and institutional commitment, social support and involvement, and motivation are often seen as ones that are integrated into academic supports (Lotkowski, Robbins, & Noeth, 2004). Both areas can impact on student success, though the qualitative nature of the non-academic factors have made it more difficult to make a direct link between these and retention. It has been found that student success has been most influenced by combining these two factors in an integrated fashion.

Academic Activities

Academic activities such as academic advising, learning assistance activities, freshman experience courses, faculty access, early warning systems, learning communities, and teaching and learning approaches can have a positive influence on student success (ASHE Higher Education Report, 2007; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Upcraft, Gardner, & Barefoot, 2005). For the purpose of this paper we will focus on the areas of academic advising and learning assistive activities. The nature of the available data through the Key Performance Indicator (KPI) report, directly speaks to these two areas. This focus in no way is intended to infer a greater or lesser level of importance to any of listed activities.

Academic Advising. Student academic advising is focused on guiding the individual in navigating not only their future direction, but also the supports available to achieving these goals. Advising has been found to have a positive effect on retention and graduation. When advisors address the needs of undecided students such as those who decide to change their major, and first-generation students who may not have the same knowledge of how to successfully navigate higher education, they positively affect student persistence (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006).

Advising can be delivered through using many models, and the determination of which is centred on what best suits that institution. In this way it is the presence of academic advisement not the form, that is critical (Noel, Levitz, Saluri, & Associates, 1985; Engle & Tinto, 2008).

The quality of academic advising also is the single most powerful predictor of satisfaction with the campus environment (ASHE Higher Education Report, 2007; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Students who use academic advising tend to have a higher retention rate. They have a positive impact on grades and satisfaction, and reduce the student's intention to leave an institution (Upcraft, Gardner, & Barefoot, 2005; Lotkowski, Robbins, & Noeth, 2004). In this way advisors act as a bridge for students, providing them with valuable information and options that allow them to make positive academic decisions.

Learning Assistance Activity. Learning assistance activities can take many forms, ranging from foundational tutorials by subject matter to build competence (e.g., in math, science, and communication) to vocational-specific opportunities, such as additional classes, lab practices times, or drop in session (Noel, Levitz, Saluri, & Associates, 1985). More established institutions incorporate a variety of environments, such as libraries, resource centre, and student success centres to support these activities. As well they can be access to one-on-one tutors, staff or student mentors, or a host of emerging technology based resources.

Despite the absence of compelling evidence to support the value of mentoring as a way to facilitate academic success, such programs have become prominent within higher education over the years (Jacobi, 1991). The use of peer mentors can assist students (Shotton, Oosahwe, & Cintron, 2007) with networking and socializing for both academic and student activities. Mentoring programs help to retain students by fostering loyalty and engendering a sense of belonging to the program and the institution. Such programs can increase success in identified challenging course and is best when used as part of an early intervention strategy (Upcraft, Gardner, & Barefoot, 2005).

Supplemental or ancillary instruction is another effective way of supporting student retention. They are often focused on specific academic competencies and are intended to reinforce learning and principles that are core to success (Noel, Levitz, Saluri, & Associates, 1985). Such activities reinforce a culture of learning, better prepare marginal students for future success, provide additional time for practice and clarification, and support the development of effective learning approaches. Supplemental instruction is delivered in a group environment, which is often a more comfortable way for first year learners to access the supports they need (Upcraft, Gardner, & Barefoot, 2005).

Non-Academic Activities

Non-academic activities such as orientation programs, student support services, co-curricular, and pre-enrolment programs have benefits students in the post-secondary success (ASHE Higher Education Report, 2007; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Kuh, 2008; Upcraft, Gardner, & Barefoot, 2005). For the purpose of this paper we will focus on the areas of orientation programs and student support services.

Orientation Programs

Orientation programs generally facilitate students' adjustment to the college environment and increase their commitment to the educational institution (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Orientation programs are intended to assist students' transition to college and to provide them with information to help them manage the challenges they encounter in this new environment (ASHE Higher Education Report, 2007). They often have a strong social focus and generate excitement about this new part of the student's journey. They acclimate the student to the institution, its culture and traditions. These activities create the first opportunity to make students aware of the various supports that exist to enhance their success.

There is a cautionary component of these programs as they often involve activities that are counterproductive to student persistence. When the social component develops elements of college life that are taken to excess, they can create a foundation of negative student behaviour (Upcraft, Gardner, & Barefoot, 2005). For this reason, orientations are often closely monitored and controlled. Ensuring a balance of social and informational activities supports an effective orientation program. Similar to many retention and student success efforts, an orientation that includes an academic advising component is more effective (Upcraft, Gardner, & Barefoot, 2005).

Student Support Services

College students come from very diverse backgrounds and are often from underrepresented populations and underserved neighborhoods; consequently, the availability of a variety of support services are key to their success-- services that can support the student's personal/family needs, the kinds of environments that increase their comfort, and those that support their future goals.

When a campus provides child care, student parents are more likely to remain in school. Not having to worry about this important service, such students graduate in fewer years, and earn higher grades. (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Other important services for adult learners are quiet work and study areas, family-oriented activities, library services, medical and financial support, bookstores, job placement, student activities, career planning and guidance (Henry & Smith, 1994; Zepke & Leach, 2010). Each of these and the flexibility to access them all support the student's ability to focus on their academic studies.

Methodology

In conducting this research, we used a quantitative approach utilizing an existing data set. The research question for this study explored the relationship of existing theories on student retention and success against the measured relationship between student use and identified importance of services and the factors that may restrict their access to them. In this way we performed correlational research aimed at determining whether and to what degree a relationship exists between the variables (Gay, 1996). It is important to note that correlational research is not intended to establish a cause-effect relationship. This was done through advancing a theory,

collecting data to test it, and reflecting on whether the theory was confirmed or disconfirmed by the results in the study (Creswell, 1994).

For the purpose of this study we used existing data from Niagara College. In the Ontario college system, data on student satisfaction is collected annually from each of the 24 colleges. The Key Performance Indicator (KPI) survey is conducted on behalf of the Ministry of Training, Colleges, and Universities as part of their on-going quality assurance process for post-secondary education. This approach to quality assurance is unique to the college system and not used to evaluate universities or private career colleges. These indicators have been part of the government mandate since 1998 (Colleges Ontario, 2014). These surveys are conducted at each college, under prescribed guidelines and all of the data are analyzed through an independent research body (CCi Research Inc., 2014a).

The survey consists of 78 questions that include both demographic and opinion based information (CCi research Inc., 2014b). The opinion based questions are further broken into six categories that focus on the students' experience related to their program, college services, and their broader college experience. It is data from these questions that we used to assist in answering the defined research questions. For this study, the results from use and importance of the Library/Resource Centre services (question 25), Tutoring services (question 26), Academic advising services (question 27), and Personal counselling services (question 28) will be used as the dependent variables.

The independent variables for this study were results from questions associated with demands on students' time while at college. These include traveling to and from the college (question 66), working for pay (question 70), and providing care for dependents (question 71). In addition to these variables we evaluated the dependent variable against gender and the semester or level of the student.

Though data exist for all colleges, the scope of this inquiry will be limited to students completing the KPI survey at Niagara College for the 2013-2014 academic year. All students in a semester beyond level one participate in the study. At Niagara College that will create a study sample of approximately 6,300 students. As the study utilized existing data, there was no need to design and administer additional survey tools. Approval was sought and received from Niagara College for access to the original KPI data, for use of their existing retention reports. Through the use the Statistical Program for Social Sciences (SPSS) the data set was analyzed using a variety of correlation and descriptive tools.

In reviewing the data, it became evident that many of the student data files were incomplete. This was due to either missing data, or multiple entries in a single entry field. It was determined that all files with missing or invalid data would be eliminated. Maintaining only those data files with all field appropriately completed, the data sample was reduced to 2,412 files.

In reviewing the existing Student Satisfaction survey questions, 4 specific questions have been selected that are closely aligned with existing theories associated to the link between student services. Those questions were:

1. Library/Resource Centre service (Q.25)
2. Tutoring services (Q.26)
3. Academic advising services (Q.27), and
4. Personal counselling services (Q.28)

The survey results for each of these questions coded usage as: did not use (1), low use (2), and high use (3), and coded importance as: not important (1) or important (2). Three questions that represented independent variables that impact on access to the available services were also selected:

1. Traveling to and from the college
2. Working for pay, and
3. Providing care for dependents.

For these questions responses were framed in term of the number of the hours each of these activities placed a demand on student time while at college. The responses were categorized as none (1), 1-5 hours (2), 6-10 hours (3), 11-15 hours (4), 16-20 hours (5), 21-25 hours (6), or more than 25 hours (7). Gender, with 1 representing female, 2 male, and 3 other gender identity and semester/program level coded as a number corresponding to the level up to 8, were also analyzed.

The first level of analysis was to produce descriptive statistics for all of the variables. The second level of analysis was to produce a frequency table for all variables. Thirdly, a correlation analysis was performed between each of the dependent and independent variables.

Results

The majority of the students surveyed were in their second or fourth level at the school (Table 1). This is to be expected as the majority of college programs are of one and two years, two to four semesters in length. As the survey is not completed by level one students, and the timing of the survey in the winter semester generally aligns with level two and four program delivery, it is not surprising to see such low numbers in all other levels.

Table 1. Frequency of enrolment by Semester/Term/Level

Semester/Term/Level	Frequency	Percent	Valid Percent	Cumulative Percent
1st	2	.1	.1	.1
2nd	1235	51.2	51.2	51.3
3rd	30	1.2	1.2	52.5
4th	705	29.2	29.2	81.8
5th	242	10.0	10.0	91.8
6th	63	2.6	2.6	94.4
7th	63	2.6	2.6	97.0

8th	6	.2	.2	97.3
Other	58	2.4	2.4	99.7
missing data	8	.3	.3	100.0
Total	2412	100.0	100.0	

In general, the surveyed services are not well utilized by the students (Table 2). Only the Library/Resource Centre has more than 50% utilization by the students, with over 86% of the respondents identifying some level of use. Tutoring and Counselling services had less than one-third of the students accessing their services. Even with this wide disparity in utilization all services were viewed as being important (Table 3). Again the Library/Resource Centre was deemed the most important, closely followed by Academic Advising, both with over 80% of the students identifying these as important. These results are supported by similar findings by Dietsche (2012) that showed over 50% of students perceived a benefit for these types of services, with only between 13 and 30% utilization.

As colleges tend to primarily service the region in which they are located (Cantor, 1992; Cejda & Leist, 2006; Dennison & Gallagher, 2011) it is not surprising that 85% of the students spend less 10 hours or less in traveling to school per week (Table 4). Based on a five-day school week we can assume that the majority of students come from within a one-hour drive of the two main campuses, with approximately 60% coming from within a ½ hour drive.

Table 2. Frequency of Utilization by Service

Usage	Frequency	Percent	Valid Percent	Cumulative Percent
Library/Resource Centre				
Did Not Use	331	13.7	13.7	13.7
Low Use	1237	51.3	51.3	65.0
High Use	844	35.0	35.0	100.0
Total	2412	100.0	100.0	
Tutoring Services				
Did Not Use	1650	68.4	68.4	68.4
Low Use	479	19.9	19.9	88.3
High Use	283	11.7	11.7	100.0
Total	2412	100.0	100.0	
Academic Advising Services				
Did Not Use	1321	54.8	54.8	54.8
Low Use	706	29.3	29.3	84.0

High Use	385	16.0	16.0	100.0
Total	2412	100.0	100.0	
Personal Counselling Services				
Did Not Use	1625	67.4	67.4	67.4
Low Use	525	21.8	21.8	89.1
High Use	262	10.9	10.9	100.0
Total	2412	100.0	100.0	

Knowing that college students tend to come from lower income families in comparison to their university counterparts (Dietsche, 2012; Engle & Tinto, 2008; Finnie, Mueller, Sweetman, & Usher, 2008), it was surprising to see that almost half of the students surveyed did not work for pay while attending school (Table 5). The majority of those that did work tended to spend between 6 and 20 hours per week doing so. With a third of the students in this 6 to 20-hour category, this variable has the greatest impact on available student time.

As the majority of students are directly or recently from high school, it is not surprising to see that more than 2/3 of them have no responsibilities for providing care to dependents (Table 6). Interestingly, the third highest category in this variable is more than 25 hours per week at 7.2% of the student population. Though a small percentage of the overall student population this a significant commitment of time while attending school.

Table 3. Frequency of Importance by Service

Importance	Frequency	Percent	Valid Percent	Cumulative Percent
Library/Resource Centre				
Not Important	367	15.2	15.2	15.2
Important	2045	84.8	84.8	100.0
Total	2412	100.0	100.0	
Tutoring Services				
Not Important	642	26.6	26.6	26.6
Important	1770	73.4	73.4	100.0
Total	2412	100.0	100.0	
Academic Advising Services				
Not Important	419	17.4	17.4	17.4
Important	1993	82.6	82.6	100.0
Total	2412	100.0	100.0	
Personal Counselling Services				
Not Important	568	23.5	23.5	23.5

Important	1844	76.5	76.5	100.0
Total	2412	100.0	100.0	

Table 4. Frequency of Travel to and from the college by hours per week

Traveling to and from the college	Frequency	Percent	Valid Percent	Cumulative Percent
None	236	9.8	9.8	9.8
1-5 hours	1269	52.6	52.6	62.4
6-10 hours	550	22.8	22.8	85.2
11-15 hours	209	8.7	8.7	93.9
16-20 hours	74	3.1	3.1	96.9
21-25 hours	36	1.5	1.5	98.4
More than 25 hours	38	1.6	1.6	100.0
Total	2412	100.0	100.0	

Table 5. Frequency of Working for pay by hours per week

Working for pay	Frequency	Percent	Valid Percent	Cumulative Percent
None	1181	49.0	49.0	49.0
1-5 hours	168	7.0	7.0	55.9
6-10 hours	225	9.3	9.3	65.3
11-15 hours	248	10.3	10.3	75.5
16-20 hours	277	11.5	11.5	87.0
21-25 hours	156	6.5	6.5	93.5
More than 25 hours	157	6.5	6.5	100.0
Total	2412	100.0	100.0	

Table 6. Frequency of Providing care for dependents by hours per week

Providing care for dependents	Frequency	Percent	Valid Percent	Cumulative Percent
None	1629	67.5	67.5	67.5
1-5 hours	349	14.5	14.5	82.0
6-10 hours	113	4.7	4.7	86.7
11-15 hours	68	2.8	2.8	89.5

16-20 hours	52	2.2	2.2	91.7
21-25 hours	28	1.2	1.2	92.8
More than 25 hours	173	7.2	7.2	100.0
Total	2412	100.0	100.0	

No significant correlations were found based on the level of the student (Table 7). Though not significant, it was interesting to note that use of all services did increase with student level, and importance with all services, except that the Library/Resource Centre was higher at the earlier levels. For all services, both utilization and importance were deemed to be significantly higher for female students.

Table 7. Correlation analysis of dependent and independent variables for utilization and importance of student services (Pearson correlations, n = 2412)

Service	Traveling to and from the college	Working for pay	Providing care for dependents	Semester/Term/Level	Gender
Personal Counselling Services (Importance)	.011	-.056**	.039	-.019	-.122**
Academic Advising Services (Importance)	.003	-.062**	.051*	-.026	-.115**
Tutoring Services (Importance)	.005	-.065**	.052*	-.009	-.093**
Library/Resource Centre (Importance)	.012	-.064**	.012	.027	-.088**
Library/Resource Centre (Usage)	.127**	-.086**	.061**	.033	-.118**
Tutoring Services (Usage)	.117**	-.148**	.041*	.031	-.040*
Academic Advising Services (Usage)	.125**	-.097**	.056**	.030	-.060**
Personal Counselling Services (Usage)	.099**	-.136**	.044*	.027	-.041*

** = p < .01

* = p > .05

Travel to and from the college had no relationship with the students' perception of the importance of the services discussed, while there was a significant correlation between increased travel time and use of the various services. The highest positive correlations were found with the Library/Resource Centre and Academic Advising services. This would seem to indicate that as students travel increases so does their likelihood of

accessing the available services.

Working for pay had the strongest relationship to identified importance and utilization. Regardless of the service, each was negatively related to increased time working for pay. The negative correlation associated with importance was similar across the four services, ranging from $-.56$ for personal counselling to $-.65$ for tutoring service. Again there was an identified decrease in usage for all services associated with an increase in time working for pay. Though significant for all, usage of tutoring services ($-.148$) and personal counselling services ($-.136$)** were the two most affected.

Time providing care for dependents was significantly correlated with the importance of academic advising ($.051$) and tutoring services ($.052$). With all of the surveyed services there was a significant correlation between an increase in time providing care for dependent and usage of the services. The strongest of these correlations existed with library/resource centre ($.061$) and academic advising services ($.056$).

Conclusion and Findings

Access and utilization of academic and non-academic student services can have a positive impact on student success (ASHE Higher Education Report, 2007; Engle & Tinto, 2008; Finnie, Mueller, Sweetman, & Usher, 2008; Kinzie & Kuh, 2004; Lotkowski, Robbins, & Noeth, 2004; Tinto, 2005). Often there are external factors that impact students and may have an effect on their identified importance and utilization of the services that a college provides. Factors such as travel to and from school, working for pay, and providing care for dependents can consume valuable time for students. Though we may naturally assume that increased demands on a student's time would reduce their utilization of academic and non-academic services, surprisingly this was not true for all of the variables measured.

Through this research we have identified that working for pay has the most significant impact on a student's utilization of services. As students work more their time to use services becomes more restricted and they use these services less. Of the listed services tutoring and personal counselling seem to be most significantly impacted. Personal counselling services seem to have the most structured and limited hours of service, while tutoring services seemed to be restricted by the number and availability of tutors. Hours of operation for library/resource centre extend more readily to the evenings and weekends, while academic advising often includes consultation with faculty that can occur electronically.

An increase in time providing care for dependents seems to heighten the importance of tutoring and academic advising services. These services are an alternative and more independent ways of gaining academic support that may be of value to individuals with significant time committed to providing care for dependents. By their nature these individuals tend to be female and not attending community college either directly or recently from high school. These individuals are often mature students returning to post-secondary education and as so, tend to have a higher utilization of services.

Of least impact on importance and utilization of services is travel time to and from school. The research indicated that this variable had no impact

on the importance placed on the services, though there was a direct relationship between use and distance travelled. We can surmise that as travel time increases, students make the decision to stay and utilize services as the once they leave school it becomes increasingly more inconvenient to return.

Though impactful on time available to access services, the travel factor is less restrictive to the others discussed. The time associated with working for pay, and providing care for dependents is often more controlled by outside factors such as work schedules, childcare hours of operation, mealtime, and family schedules. These factors further raised the question of whether students should adapt to the operations of the institution, or should institutions adapt to the needs of their students (Dietsche, 2012).

As colleges continue to intensify their focus on student success, consideration should be given to investigate alternative approaches to providing academic advising and learning assistive activities, such as

- Extended service hours
- E-mentoring & advising
- Marketing of services through faculty and classroom promotion and
- Online workshops and tutorials in vocational content (i.e. math, communications) and learning strategies

It is important to note that the large sample size in this study meant that some fairly small correlations were found to be statistically significant. Though these relationships might reasonably be called “weak” statistical significance suggests they are reliable and reproducible. As is the nature of correlational analysis, this research does not suggest a causal relationship between the identified factors. It does, however, illuminate the level of importance and utilization associated with each independent variable and identifies areas of significance for future research. The college’s goal is to enhance the success of its students, and this research has indicated the importance of the services discussed in this paper. The literature has also identified the complex nature of the community college environment and its students. Further investigation on to why specific groups use and do not use services will allow the college to better meet the needs and therefore success of its students.

References

ASHE Higher Education Report. (2007). The Foundation for Student Success: Student Background Characteristics, Precollege Experiences, and Enrollment Patterns. *30*(2).

Bean, J. P. (1981). The Synthesis of a Theoretical Model of Student Attrition . *The annual Meeting of the American Educational Research Association*, (pp. 1-34). Los Angeles.

Bean, J. P. (1985, Spring). Interaction Effects Based on Class Level in an Explanatory Model of College Student Dropout. *American Educational Research Journal*, *22*(1), 35-64.

Braxton, J. M. (1999/2000). Theory Elaboration and Research

Development: Toward a Fuller Understanding of College Student retention. *Journal of College Student Retention*, 1(2), 93-97.

Cantor, L. (1992). Canadian Community College's: Institutions in Transition. *Studies in Higher Education*, 17(2), 169-183.

CCi Research Inc. (2014a). *KPI Reports and Analysis Catalogue 2013-2014*. Orangeville: CCI Research Inc.

CCi research Inc. (2014b). *KPI Student Satisfaction Survey*. Retrieved April 28, 2014, from Ministry of Training, Colleges, and Universities: <http://www.tcu.gov.on.ca/eng/labourmarket/employmentprofiles/mcsse12.pdf>

Cejda, B. D., & Leist, J. (2006). Challenges facing community colleges: perceptions of chief academic officers in nine states. *Community College Journal of Research and Practice*, 30, 253-274.

Colleges Ontario. (2014, April 15). *Key Performance Indicators*. Retrieved from Colleges Ontario: <http://www.collegesontario.org/outcomes/key-performance-indicators.html>

Colleges Ontario. (2014). *Key Performance Indicators*. Retrieved April 30, 2014, from Colleges Ontario: <http://www.collegesontario.org/outcomes/key-performance-indicators.html>

Creswell, J. W. (1994). *Research design: Qualitative & quantitative approaches*. Thousand Oaks, CA: Sage.

Dennison, J. D., & Gallagher, P. (2011). *Canada's Community Colleges: A Critical Analysis*. UBC Press.

Dietsche, P. (2012). Use of Campus Support Services by Ontario College Students. *Canadian Journal of Higher Education*, 42(3), 65-92.

Drea, C. (2004, Spring). Student Attrition and Retention In Ontario's Colleges. *College Quarterly*, 7(2).

Engle, J., & Tinto, V. (2008). (2008). *Moving Beyond Access: College Success For Low- Income, First-Generation Students*. Washington: The Pell Institute.

Finnie, R., Frenette, M., Mueller, R., & Sweetman, A. (Eds.). (2010). *Pursuing Higher Education in Canada: Economic, Social, and Policy Dimensions*. School of Policy Studies. Montreal and Kingston: McGill-Queen's University Press.

Finnie, R., Mueller, R., Sweetman, A., & Usher, A. (Eds.). (2008). *Who Goes? Who Stays? What Matters? Accessing and Persisting in Post-Secondary Education in Canada*. Montreal and Kingston: McGill-Queen's University Press.

Gay, L. R. (1996). *Educational research: Competencies for analysis and application*. Upper Saddle River, NJ: Merrill.

Henry, T. C., & Smith, G. P. (1994). Planning Student Success and Persistence: Implementing a State System Strategy. *Community College*

Jacobi, M. (1991, Winter). Mentoring and Undergraduate Academic Success: A Literature Review. *Review of Educational Research*, 61(4), 505-532.

Kinzie, J., & Kuh, G. D. (2004, November-December). Going Deep: Learning from Campuses That Share Responsibility for Student Success. *About Campus*, 1-8.

Kuh, G. D. (2008). *Excerpt from "High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter"*. Association of American Colleges and Universities.

Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). *What Matters to Student Success: A Review of the Literature*. National Symposium on Postsecondary Student Success. National Post-secondary Education Cooperative.

Lotkowski, V. A., Robbins, S. B., & Noeth, R. J. (2004). *The Role of Academic and Non-Academic Factors in Improving College Retention*. ACT.

Noel, L., Levitz, R., Saluri, D., & Associates. (1985). *Increasing Student Retention*. San Francisco, CA: Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (1980, January-February). Predicting Freshman Persistence and Voluntary Dropout Decisions from a Theoretical Model. *The Journal of Higher Education*, 51(1), 60-75.

Shotton, H., Oosahwe, E., & Cintron, R. (2007). Stories of success: Experiences of American Indian students in a peer-mentoring retention program. *The Review of Higher Education*, 31(1), 81-107.

Tinto, V. (1975, Winter). Dropout from Higher Education: A Theoretical Synthesis of Recent Research. *Review of Educational Research*, 45(1), 89-125.

Tinto, V. (2005, January). Taking student success seriously: Rethinking the first year of college. In *Ninth Annual Intersession Academic Affairs Forum*, (pp. (pp. 05-01)). Fullerton: California State University, Fullerton .

Tucker, J. E. (1999). Tonto's Model and Successful College Transitions. *Journal of College Student Retention: Research, Theory & Practice*, 1(2), 163-175.

Upcraft, M. L., Gardner, J. N., & Barefoot, B. O. (2005). *Challenging and supporting the first year student*. San Francisco, CA: Jossey-Bass.

Zepke, N., & Leach, L. (2010, December). Beyond hard outcomes: 'soft' outcomes and engagement as student success. *Teaching in Higher Education*, 15(6), 661-673.

administrator for nearly 20 years. Mr. Veres is presently pursuing PhD studies at Niagara University. He can be reached at dveres@mail.niagara.edu

◀ Contents

The views expressed by the authors are those of the authors and do not necessarily reflect those of The College Quarterly or of Seneca College.

Copyright © 2016 - The College Quarterly, Seneca College of Applied Arts and Technology