Measures of Student Engagement in Postsecondary Education: Theoretical Basis and Applicability to Ontario's Colleges

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for the Higher Education Quality Council of Ontario

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Your Survey Research Partner

Higher Education Quality Council of Ontario
An agency of the Government of Ontario

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1.   Summary

Student engagement has become recognized as an important aspect of the learning experience and has been increasingly incorporated into postsecondary research at an international level. This literature review provides a comprehensive overview of the key issues related to the construct of student engagement, including: (1) a summary of the theoretical underpinnings of student engagement in postsecondary education, (2) a description of the working definitions of student engagement in the current literature, and (3) a comprehensive review of the engagement-related survey instruments currently used in postsecondary education in Canada and internationally with a focus on the application to Colleges of Applied Arts and Technology in Ontario. An extensive literature search was performed as the basis for this review, and relevant research articles, websites, presentations, and reports were compiled, examined, and summarized in a stand-alone Annotated Bibliography, available under a separate cover.[1]   A total of 23 surveys are examined within this report including UCLA's Higher Education Research Institute Co-operative Institutional Research Program Surveys (CIRP Freshman Survey, YFCY, CSS), Indiana University's Centre for Postsecondary Research Student Experiences and Expectations Surveys (CSEQ, CSXQ, CCSEQ) and Student Engagement Surveys (NSSE, BCSSE, FSSE, HSSSE, LSSSE), the University of Texas Community College Leadership Program Student Engagement Surveys (CCSSE, SENSE, CCFSSE), Canadian student surveys (OCSES, FITS/Fast Track, YITS, CUSC, CEQ, KPI), and other relevant international student surveys (CEQ, SCEQ, AUSSE, NSS). Additionally, a question-by-question comparison was constructed in Microsoft Excel format for six of the most relevant student surveys for which the survey questions were publicly available (OCSES 1, OCSES 2, CCSSE, CSEQ, and KPI) as well as the student engagement module for the YITS. This Survey Question Comparison is available as a stand-alone document under a separate cover.[2] The material presented in this report informs the reader of the available literature with a view to providing the information and references required for a broad-based consideration of the construct of student engagement and its measurement in a postsecondary context.

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[1] College Student Engagement Literature Review: Annotated Bibliography. September 15, 2008. Prepared by CCI Research Inc.
[2] Student Engagement Survey Question Comparison. September 15, 2008. Prepared by CCI Research Inc.

2.   Introduction

2.1.   Background

Current research indicates that various positive outcomes may be associated with higher levels of student engagement at the postsecondary level (Astin, 1993; Pace, 1984; Pascarella & Terenzini, 2005; Tinto, 1987). Thus, student engagement has become recognized as an important aspect of the learning experience and has been increasingly incorporated into theory and research affecting college and university education around the globe. In recognition of the importance of the construct of student engagement, Ontario's 2005 review of postsecondary education recommended that Ontario's postsecondary institutions measure student engagement as part of a quality assurance framework. Measures of student engagement as an indicator of quality have since been made part of the 2006-07 to 2008-09 Multi-Year Agreements between Ontario's Ministry of Training, Colleges and Universities and Ontario's publicly funded postsecondary institutions.

Given the theoretical importance of student engagement in the academic literature and the integration of this model into the Ontario postsecondary system, the Higher Education Quality Council of Ontario (HEQCO) determined that more information is required in the form of a comprehensive literature review as related to the area of student engagement and applications within the postsecondary system. In particular, information is needed specific to the application to colleges defined in the Canadian context as 2-year public institutions, community colleges, Ontario Colleges of Applied Arts and Technology, and Quebec's CEGEPs.

2.2.   Purpose

As a construct, student engagement has been explored extensively within the academic literature. At the postsecondary level, student engagement has been measured internationally with a variety of instruments. The purpose of the current report is to provide a general review of student engagement theories in postsecondary education with the focus on working definitions of student engagement and comparative assessments of engagement or engagement-related surveys in use in colleges both nationally and internationally. The scope of the project also includes measures in use within the university system, as these are often related to, and/or precursors of, the existing college student engagement instruments that have been developed. This relationship between college and university instruments suggests that there is merit in reviewing instruments at other levels in order to supplement the understanding of the concept of engagement and its application in the postsecondary context. Thus, although this project places particular emphasis on issues relevant to student engagement at the college level and the applicability of various student engagement surveys to Ontario's diverse *college student population*, instruments from other contexts are reviewed, as appropriate, in order to provide a comprehensive overview of postsecondary student engagement. Where relevant, comparisons are made among the survey instruments that are directly related to student engagement as measured in Ontario.

2.3.   Objectives

This project places particular emphasis on issues relevant to student engagement at the college level and the applicability of various student engagement surveys to Ontario's diverse college student population.   Thus, the review is comprised of the following components:

1. Overview of the theoretical background of student engagement, including operational definitions, where available.

2. Description of the different survey tools used in Canada and other jurisdictions with respect to their theoretical backgrounds and methodologies, including issues such as:

   - Background

   - Content and Length

   - Administration

   - Psychometrics

   - Validity as a Measure of Engagement for Diverse Student Groups

   - Utility at the Institutional Level

   - Predictive Value for Student Success and Persistence

3. Question-by-question comparisons of the most relevant survey instruments, with a view to providing a concise and comprehensive model for detailed content comparison purposes.

3. Methodology

3.1. Search Terms

This literature review was initiated using basic search terms such as "student engagement" and the names of the known survey instruments that were to be part of the review e.g., National Survey of Student Engagement (NSSE), Community College Survey of Student Engagement (CCSSE), Ontario College Student Engagement Survey (OCSES), etc.). As part of an iterative process, survey instrument names and other terms were added to the search as information was gathered. Multiple analysts experienced in literature reviews participated in the search process, the extensive review of the accumulated literature, and the creation of the subsequent annotations within the annotated bibliography.[3]

3.2. Databases

This search for literature in all relevant topic areas proceeded as follows:

1. Main Website

    a. The main website of all relevant survey instruments was examined for information and reference to research articles of interest. Most websites contained information relevant to all topics of interest, including: background and purpose, target respondent group and institutional participation, content and length, administration, psychometrics, and utility at the institutional level. In general, it was consistently more difficult to find information regarding validity as a measure of engagement for diverse student groups and predictive value for student success and persistence. In addition, information related to the psychometrics of certain instruments was limited.

2. ERIC Search

    a. The Education Resources Information Centre (ERIC) database was searched extensively for any relevant articles related to the search terms of interest. ERIC provides free access to more than 1.2 million bibliographic records of journal articles and other education-related materials and, if available, includes links to full text documents. ERIC is sponsored by the U.S. Department of Education, Institute of Education Sciences (IES).

    b. The main website for ERIC is: http://www.eric.ed.gov/.

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[3] College Student Engagement Literature Review: Annotated Bibliography. September 15, 2008. Prepared by CCI Research Inc.

3. OISE Website Search

   a. The University of Toronto Ontario Institute for Studies in Education (OISE) website was searched for all relevant terms. OISE is an interdisciplinary professional school of education dedicated to national pre-eminence and international distinction in graduate studies, teacher education, research and field development in education. OISE is committed to the study and pursuit of education in the context of broad social, political, moral and economic issues. OISE is also home to The Centre for the Study of Students in Postsecondary Education (CSS), which was established at the University of Toronto in Spring 2007 with a mission to: "...design, implement, and disseminate quality, relevant scholarship and programs that advance a broader understanding of student learning, development and success at the University of Toronto and in Canadian postsecondary education."

   b. The main website for OISE is: http://css.oise.utoronto.ca/index.html.

4. CSSE Website Search

   a. The Canadian Society for the Study of Education (CSSE) website was also searched for all relevant terms. The CSSE is the largest organization of professors, students, researchers and practitioners in education in Canada. CSSE is the major national voice for those who create educational knowledge; prepare teachers and educational leaders; and apply research in the schools, classrooms and institutions of Canada.

   b. The main website for the CSSE is: http://www.csse.ca/ACDE/home.htm.

5. Database of Research on International Education

   a. This searchable web database contains details of 7,344 books, articles, conference papers and reports on various aspects of international education from publishers in Australia and overseas. The database covers material published from 1990 onwards, a period of major change in education systems around the world and in the trade in educational services. Material in the database is drawn from the Australian Education Index, produced by Cunningham Library, with additional material sourced from a variety of international organisations and publishers.

   b. The main website for the Database of Research on International Education is: http://cunningham.acer.edu.au/dbtw-wpd/textbase/ndrie/ndrie.html.

6. Google Search

a. In addition to the above education database searches, the internet was searched more generally for other information relevant to the search terms of interest. This type of search proved especially useful in cases where information was limited from other sources.

The survey instruments presented as part of this literature review are outlined in Table 5-1. For each survey instrument, this table provides information about the survey acronym, the formal name of the survey instrument, the year of development, and the theorist and/or key personnel involved with the survey. It is very important to note that while some of these instruments are specific to community colleges, others are specific to the university context. However, given that many of these instruments were developed in the United States where the term "college" tends to refer to the university context, the term "college" as used in this report and the articles upon which it is based may be referring to community colleges **or** universities, depending on the instrument.

3.3. Analysis

The following analysis includes a thorough description of the main surveys of interest and brief descriptions of other less-relevant surveys. An Annotated Bibliography consisting of relevant published and unpublished literature relating to the surveys of interest is also provided as a separate stand-alone report.[4] Formal abstracts are included within the Annotated Bibliography along with the annotations, where available, in order to provide comprehensive information on the relevant references. Note that a small number of references do not include a year of publication because the year was not available.

In addition to the Annotated Bibliography and this Summary Report, a question-by-question comparison of the main survey instruments is provided separately in an MS Excel spreadsheet for illustrative purposes.[5] The Survey Question Comparison is described more fully in Section 11 of this report.

3.4. Limitations

Although extensive searches were performed on relevant terms, it is possible that some information was not accessible through these avenues, and therefore additional relevant literature may exist which is not cited in this report or listed within the Annotated Bibliography. In addition, due to the large volume of research conducted on some of the larger surveys (e.g., NSSE), it was not feasible to review all research articles related to the surveys, and, therefore, those that appeared to be most closely aligned with the current research objectives were referenced within this report and included in the Annotated Bibliography. For other instruments, much less information appears to be available from any source, and, therefore, in these instances websites and other documents, such as presentations or brief articles, were relied upon for a substantial

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[4] College Student Engagement Literature Review: Annotated Bibliography. September 15, 2008. Prepared by CCI Research Inc.
[5] Student Engagement Survey Question Comparison. September 15, 2008. Prepared by CCI Research Inc.

portion of the available information (e.g., HSSSE, LSSSE, SENSE). In the interest of keeping this report concise, many research articles are reported on only briefly and further detail can be found in the Annotated Bibliography. In general, as noted above, it was more difficult to find information regarding validity as a measure of engagement for diverse student groups and predictive value for student success and persistence for all surveys. In addition, information related to the psychometrics of certain instruments was limited.

Although many of the survey instruments were available to the public, several were only available by purchase for service. Thus, in choosing instruments for the Survey Question Comparison, we were limited by those surveys which were publicly available for viewing.

This literature review reports solely on information that already exists in literature, with no new primary research undertaken. In addition, this report does not provide specific recommendations about the continuation, replacement, or implementation of any survey tools, although we recognize that such decisions may be made utilizing findings from this research project.

4. The Theory Behind Student Engagement

The term "student engagement" has developed over time through the efforts of several theorists and educational researchers. As such, student engagement does not have a clear and singular definition or an obvious beginning, but rather has slowly evolved over the last 40 or so years. The following information regarding the findings of the main theorists gives a background of the early research that contributed to the conception of student engagement. Following these theories are some working descriptions from the literature that further contribute to our understanding of how the term student engagement is used and implemented today.

4.1. Theories Related to Student Engagement

4.1.1. Alexander W. Astin

In his frequently cited book, _Four Critical Years_ (Astin, 1977), Astin describes the theoretical basis for the phenomenon of student involvement. Astin theorized that the more time and energy invested in the educational experience through such experiences as full-time attendance, living on-campus, and the peer group, the more that learning and development would be enhanced (Astin, 1993). The author titled his theory the "input-environment-output" (I-E-O) model. In this model, "inputs" refer to the characteristics of the student at the time of entry into college or university, "environment" refers to the various programs, policies, faculty, peers and educational experiences to which the student is exposed, and "outcomes" refer to the characteristics of the student after exposure to the college environment (Astin, 1993). The purpose of the I-E-O model is to assess whether students develop differently under different environmental conditions. In particular, this concept is used in an attempt to explain the effects of environmental influences on student growth, with a focus on factors over which institutions have some control (Pascarella & Terenzini, 2005). Environmental measures within the I-E-O include: institutional characteristics, curriculum, faculty, residence, financial aid and student peer groups, as well as various types of student involvement such as academic involvement, faculty involvement, involvement with student peers, and involvement in work and other areas (Astin, 1993). This concept of "involvement" has been linked theoretically to student engagement.

Astin is the director of the Higher Education Research Institute (HERI) at the University of California, Los Angeles and is the founding director of the Cooperative Institutional Research Program (CIRP), which houses three student surveys (the CIRP Freshman Survey, Your First College Year Survey, and College Senior Survey) that have generated many years of student data. These data have contributed strong support for Astin's theory that a student's academic and personal development can be enhanced by significant involvement in college activities (Arredondo, 1995; Astin, 1993; Tsui, 1995).

4.1.2.   Robert C. Pace

The idea of quality of effort was conceptualized by Pace in his 1979 book titled, Measuring Outcomes of College: Fifty Years of Findings and Recommendations for the Future. In his book, Pace (1979) states that,

All learning and development requires an investment of time and effort by the student. What students can gain from the variety of events depends on the amount, scope, and quality of their engagement. As these encounters broaden and deepen, the student's capacity for growth is enhanced. To document objectively the scope and quality of students' effort is crucial for understanding growth and development. (p. 127)

In other words, it is not only the opportunities for engagement that an institution offers, or student participation in college events, it is the quality of their engagement that most impacts their growth and development (Ethington & Horn, 2007; Pace, 1984). Student events and encounters in college may include those inside and outside the classroom, contact with faculty and other students, the use of facilities, and opportunities for growth and improving skills (Ethington & Horn, 2007). According to Pace, the path of student development begins with a student's background and status in college (e.g., full-time, part-time, transfer), which is combined with student efforts and activities and their perceptions of the college environment, that contribute overall to a students' perceptions of gains (Ethington & Horn, 2007). The conception of quality of effort was operationalized in Pace's 1979 questionnaire, the College Student Experiences Survey (CSEQ) and its more recent community-college counterpart, the Community College Student Experiences Questionnaire (CCSEQ). Data from these survey instruments have contributed support for Pace's quality of effort theory (Ethington & Horn, 2007; Kuh, Pace, & Vesper, 1997; Pace, 1982, 1984; Polizzi & Ethington, 1998).

4.1.3.   Vincent Tinto

Tinto describes an interactive model of student departure from institutions of higher education (Figure 4-1) which focuses primarily on the events which occur within the institution immediately preceding, or just following entry into the institution. Specifically, in this model, Tinto (1987) attempts to explain:

…how interactions among different individuals within the academic and social systems of the institution and the communities which comprise them lead individuals of different characteristics to withdraw from that institution prior to degree completion. (p. 112)

Tinto argues that positive and integrative experiences reinforce persistence, whereas negative or disconnecting experiences, or the absence of interaction, can weaken intentions and commitments, thereby enhancing the likelihood of leaving. An individual student's characteristics including background, skills, financial resources, prior education, intentions, external commitments, and their subsequent interactions and integrations with members of the academic and social systems of an institution contribute to these positive or negative experiences (Tinto, 1987). It is believed that the greater the interaction among students, the more likely they are to establish membership in the social and intellectual communities of the college, and therefore increase their likelihood of

persisting. When both academic and social systems are in support of each other, they reinforce integration within the institution (Tinto, 1987). Tinto suggests actions that institutions can take to reduce student departure with respect to recruiting, orientation, identifying student needs, community building, advising, and collaborative and cooperative learning. The underlying concept of Tinto's theory of departure, specifically, that student integration into the academic and social systems of an institution is key to student persistence, parallels Astin's model of involvement and Pace's quality of effort theory (Pascarella & Terenzini, 2005), all of which are conceptually analogous to the construct of student engagement.

Figure 4-1: Tinto's longitudinal model of institutional departure
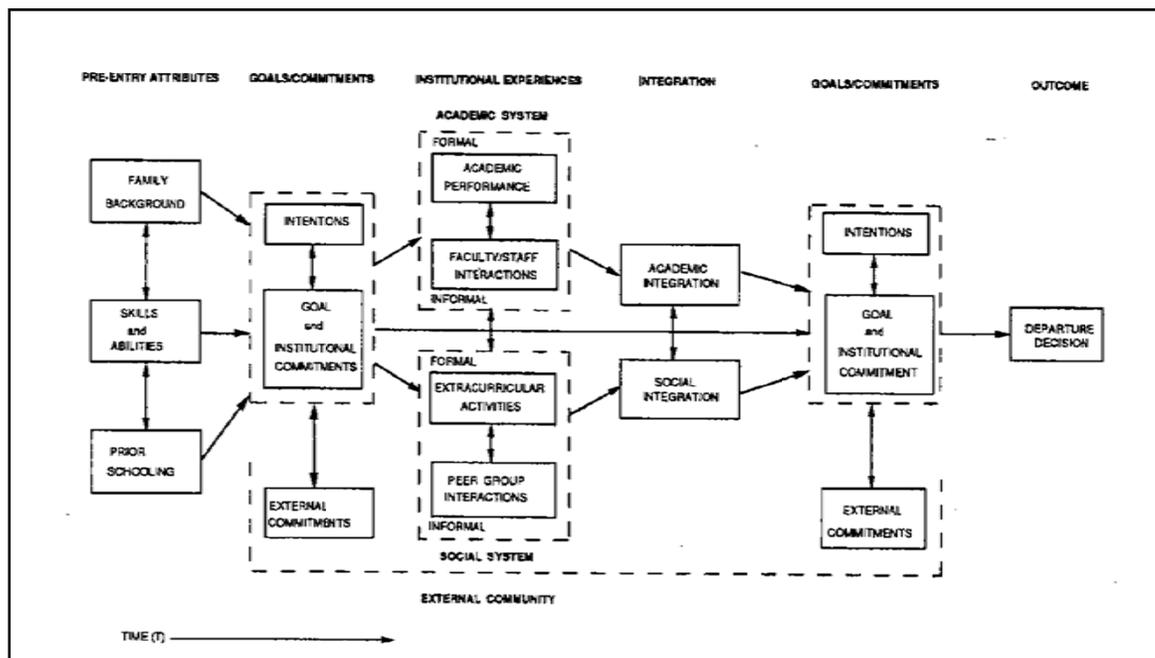
Source: Tinto, 1987, p. 114. Copyright © 1987 The University of Chicago Press, Ltd.

Based on Tinto's work, Dietsche (1990) operationalized a model of dropout by specifying four classes of variables to be measured: (1) background variables, which include demographic characteristics and academic history; (2) entry-level variables, which describe the characteristics of the student at the time of entry including the constructs of goal and institutional commitment; (3) interaction variables, which describe the interaction between the student and the institution and include academic and social integration; and (4) outcome variables, which include intent to leave and persistence. This approach, which corresponds with the theoretical basis of the Freshman Integration Tracking System (FITS) and the Ontario College Student Engagement Survey (OCSES), was intended to identify any differences in the background, entry-level, interaction, and outcome characteristics of successful and unsuccessful dropouts and persisters, and to

determine the extent to which students can be classified as dropouts or persisters based on these characteristics.

4.1.4.   Ernest T. Pascarella

Pascarella proposes a general causal model, titled the General Causal Model for Assessing the Effects of Differential Environments on Student Learning and Cognitive Development (Figure 4-2), that includes the consideration of an institution's structural characteristics and its environment (Pascarella, 1985). This model suggests that student growth is a function of the direct and indirect effects of five main sets of variables: students' background and pre-college characteristics, the structural and organizational characteristics of the institution, institutional environment, student interactions with faculty and other students, and quality of effort (Pascarella & Terenzini, 2005). Clearly, aspects of this model involve elements of student engagement.

Figure 4-2: Pascarella's general causal model for assessing the effects of differential environments on student learning and cognitive development
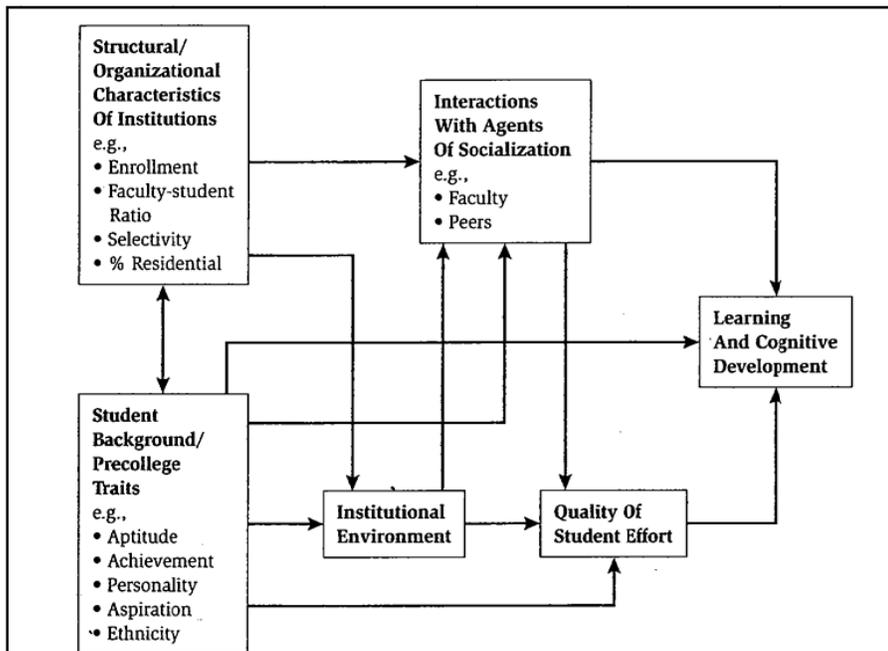
Source: Pascarella, 1985, p.10. Copyright © 1985 Agathon Press, Inc.

4.2.   Working Definitions of Student Engagement

The broad definition of "to engage", according to the Canadian Oxford dictionary, is to attract and hold fast a person's attention or interest. The term "student engagement" has evolved from the studies of student involvement (Astin), quality of effort (Pace), and

interaction and integration (Tinto), and is now used to describe the effort, interest, and time that students invest in meaningful educational experiences.

George D. Kuh, Chancellor's Professor of Higher Education and Director, Center for Postsecondary Research, home to the National Survey of Student Engagement (NSSE), describes student engagement as "the time and energy that students devote to educationally sound activities inside and outside of the classroom, and the policies and practices that institutions use to induce students to take part in these activities" (Kuh, 2003, p. 25). Kuh (2003) goes on to say:

"The engagement principle is deceptively simple, even self-evident: the more students study a subject, the more they learn about it. Likewise, the more students practice and get feedback on their writing, analyzing, or problem solving, the more adept they become." (p. 25)

According to Kuh, Kinzie, Schuh, J.H.Whitt, E.J. and Associate (2005), student engagement has two key components that contribute to student success: (1) the amount of time and effort students put forth in studies, activities, and experiences that have success-based outcomes, and (2) the ways in which institutions provide learning opportunities and services that encourage students to participate and benefit from their participation. Thus, it is important to note that throughout this discussion of theories and definitions of student engagement, even though the focus is on student engagement, institutional actions are thought to influence levels of engagement and learning on campus.

Student engagement is also defined as student's involvement with activities and conditions likely to generate high-quality learning (Australian Council for Educational Research, 2008a). One report describes student engagement as the student's relationship with the school community including the people, structures, curriculum, content, pedagogy, and opportunities (Yazzie-Mintz, 2007). Student engagement focuses on the interaction between students and their learning environment, where students are responsible for their own level of involvement, but the institution and staff are responsible for fostering an environment that stimulates and encourages student involvement (Chalmers, 2007).

Chickering and Gamson's seven principles for good practice in undergraduate education are likely the best-known set of student engagement indicators (Kuh, et al., 2005). These seven principles which are proposed to facilitate student engagement include: student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning (Chickering & Gamson, 1987). Similar to the principles for good practice, the National Survey of Student Engagement identifies five benchmarks of effective educational practice which include: level of academic challenge, active and collaborative learning, student interaction with faculty members, enriching educational experiences, and supportive campus environment (NSSE, 2008).

A large and growing body of research concludes that student engagement is associated with learning, growth, personal development (Astin, 1993; Hayek & Kuh, 2004; Pace, 1982), and student persistence (Kuh, et al., 2005; Tinto, 1987), in other words, overall

student success. One extensive literature review conducted on student success and engagement concluded the following:

Student engagement in effective educational practices appears to be related to several positive outcomes

Student engagement varies more within institutions than between institutions,

Some students are generally less engaged than others, and

Student-faculty interaction has a greater impact on learning when it encourages students to devote greater efforts toward educationally purposeful activities (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006).

While formal operational definitions of engagement appear to be scarce, one study represented student engagement by three separate measures from the NSSE including: time spent studying, time spent in co-curricular activities, and an overall measure of engagement made up of responses to 19 other NSSE items (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007).

4.3.   Satisfaction vs. Engagement

In some postsecondary studies, satisfaction appears to be considered as an outcome to be measured along with performance-based outcomes such as persistence and success (Gordon, Ludlum, & Hoey, 2008). In one review, student satisfaction is conceived to represent loyalty toward an institution and is reported to be highly correlated with student engagement, persistence, and academic performance (Kuh, et al., 2006). Additionally, student satisfaction with postsecondary education appears to be more influenced by the college environment and less influenced by students' entering characteristics (Kuh, et al., 2006). Also, it has been reported that students who are more satisfied with their overall college experience tend to have more interaction with faculty and their peers (Kuh, et al., 2006). Thus, satisfaction and engagement appear to be distinguishable although intimately related, and both are currently studied extensively as part of institutional improvement efforts at the postsecondary level.

5. Review of Student Engagement Surveys and Related Instruments

5.1. Outline of Survey Instruments

<table>
<tr><td colspan="4">Table 5-1
Survey Instruments Reviewed</td></tr>
<tr><td>Acronym</td><td>Survey Name</td><td>Year of Development</td><td>Theorist/Key Personnel/ Institutional Involvement</td></tr>
<tr><td colspan="4">UCLA's Higher Education Research Institute (HERI) Co-operative Institutional Research Program (CIRP) Surveys</td></tr>
<tr><td>CIRP FS</td><td>CIRP Freshman Survey</td><td>1966</td><td>Astin, HERI</td></tr>
<tr><td>CIRP YFCY</td><td>CIRP Your First College Year Survey</td><td>2000</td><td>Astin, HERI</td></tr>
<tr><td>CIRP CSS</td><td>CIRP College Senior Survey</td><td>-</td><td>Astin, HERI</td></tr>
<tr><td colspan="4">Indiana University Centre for Postsecondary Research – Student Experiences and Expectations Surveys</td></tr>
<tr><td>CSEQ</td><td>College Student Experiences Survey</td><td>1979</td><td>Pace (now overseen by Kuh)</td></tr>
<tr><td>CSXQ</td><td>College Student Expectations Survey</td><td>1998</td><td>Pace</td></tr>
<tr><td>CCSEQ</td><td>Community College Student Experiences Survey</td><td>1994</td><td>Pace, Friedlander</td></tr>
<tr><td colspan="4">Indiana University Centre for Postsecondary Research – Student Engagement Surveys</td></tr>
<tr><td>NSSE</td><td>National Student Survey of Engagement</td><td>1998</td><td>Astin, Pace, Kuh & associates</td></tr>
<tr><td>BCSSE</td><td>Beginning College Student Survey of Engagement</td><td>2004</td><td>Astin, Pace, Kuh & associates</td></tr>
<tr><td>FSSE</td><td>Faculty Survey of Student Engagement</td><td>2003</td><td>Astin, Pace, Kuh & associates</td></tr>
<tr><td>HSSSE</td><td>High School Survey of Student Engagement</td><td>2004</td><td>Astin, Pace, Kuh & associates</td></tr>
<tr><td>LSSSE</td><td>Law School Survey of Student Engagement</td><td>2003</td><td>Astin, Pace, Kuh & associates</td></tr>
<tr><td colspan="4">University of Texas at Austin Community College Leadership Program – Community College Student Engagement Surveys</td></tr>
<tr><td>CCSSE</td><td>Community College Student Engagement Survey</td><td>2001</td><td>Astin, Pace, Kuh & associates</td></tr>
<tr><td>SENSE</td><td>Survey of Entering Student Engagement</td><td>2007</td><td>Community College Leadership Program, Expert advisory panel</td></tr>
<tr><td>CCFSSE</td><td>Community College Faculty Survey of Student Engagement</td><td>2004</td><td>CCSSE advisory committee</td></tr>
<tr><td colspan="4">Canadian Student Surveys</td></tr>
<tr><td>OCSES</td><td>Ontario College Student Engagement Survey</td><td>2006</td><td>Dietsche</td></tr>
<tr><td>FITS/FastTrack</td><td>Freshman Integration and Tracking System</td><td>1995</td><td>Dietsche, Educational Policy Institute, Polaris Research Associates</td></tr>
<tr><td>YITS</td><td>Youth in Transition Survey</td><td>1996</td><td>Human Resources and Social Development Canada</td></tr>
</table>

CUSC	Canadian Undergraduate Survey Consortium (CUSC)	1994	CUSC
CEQ	CEGEP Experience Questionnaire	2004	Quebec's CEGEPs
KPI	Key Performance Indicators	1998	Ministry of Training, Colleges and Universities, individual Ontario colleges
Other International Student Surveys			
CEQ	Course Experience Questionnaire	1993	Ramsden and colleagues
SCEQ	Student Course Experience Survey	1999	Ramsden, Symons, University of Sydney
NSS	National Student Survey	2005	Ramsden, The Higher Education Academy
AUSSE	Australasian Survey of Student Engagement	2007	NSSE staff, Australian Council for Educational Research

6.   UCLA's Higher Education Research Institute (HERI) Co-operative Institutional Research Program (CIRP) Surveys

Since 1966, the Higher Education Research Institute (HERI) at the University of California, Los Angeles (UCLA) has administered the Cooperative Institutional Research Program (CIRP) Freshman Survey. The CIRP Freshman Survey is the largest American study of higher education, and has collected data on over 13 million students at over 1,900 institutions (HERI, 2008). More recently, CIRP has offered Your First College Year survey (YFCY) beginning in 2000, and the College Senior Survey (CSS) (formerly called the College Student Survey), which were designed as follow-up surveys to the CIRP Freshman Survey (HERI, 2008).   All three instruments can be used alone, or in combination to provide valuable baseline data and analysis for longitudinal assessment (HERI, 2008; Keup, 2004). Because of the long history of the CIRP Freshman Survey, valuable long-term trending data is available (Dey, Astin, & Korn, 1991).

The CIRP Freshman Survey is designed to provide comprehensive demographic and attitudinal information on incoming first-year students before they begin classes.   It examines student readiness for college, how and why students choose their colleges (Pike, 2004), and their values, beliefs, and expectations (HERI, 2008). In contrast, YFCY was designed to assess the academic and personal development of students over their first year of college, while the CSS, designed as an "exit" survey, examines the impact of service-learning, leadership development, and student-faculty interactions, and assesses instructional practices over the entire college experience (HERI, 2008). Many of the items on the CIRP Freshman Survey are pre-test questions that are then post-tested on the two follow-up surveys, which can provide longitudinal data on cognitive and affective growth during the college experience (HERI, 2008).   The CIRP Freshman Survey consists of 39 numbered questions, many of which have sub-questions. In total, the CIRP Freshman Survey contains approximately 206 individual questions (Dey, et al., 1991).

According to the main website, results from the CIRP surveys are intended to provide a comprehensive portrait of the changing character of entering students and American society at large (CIRP). The YFCY enables institutions to identify features of the first college year that encourage student learning, involvement, satisfaction, retention, and success, thereby enhancing first-year programs at campuses across the nation.   The CSS provides feedback on students' academic and campus life experiences that can be used for student assessment, accreditation and self-study reports, campus planning, and policy analysis, as well as students' post-college plans immediately following graduation (HERI, 2008).

Each year, approximately 700 two-year colleges, four-year colleges, and universities administer the CIRP Freshman Survey to over 400,000 entering students during

orientation or registration. In 2005, the YFCY was administered at 144 colleges and universities in the United States with over 38,000 responses (HERI, 2008). No information was available on the main HERI website as to the institutional participation for the CSS. All three surveys are available as both paper and web surveys. The CIRP Freshman Survey questions were found to exhibit a great deal of stability over time, and high reliability (CIRP). It is assumed that the stability and reliability also pertain to the YFCY and CSS (CIRP).

The following information gathered from the main website identifies the key topics of each CIRP survey (HERI, 2008):

Table 6-1
Key Topics of the Three CIRP Surveys
CIRP Freshman Survey
Established behaviours in high school
Academic preparedness
Admissions decisions
Expectations of college
Interactions with peers and faculty
Student values and goals
Student demographic characteristics
Concerns about financing college
YFCY
Academic achievement and engagement
Learning strategies and pedagogical practices
Residential and employment experiences
Interactions with family, peers, faculty, and staff
Patterns of behaviour
Student values and goals
Satisfaction, self-confidence and feelings of personal success
College adjustment issues
CSS
Academic achievement and engagement
Cognitive and affective development
Student values, attitudes and goals
Satisfaction with the college experience
Degree aspirations and career plans
Post-college plans

Data collected from the CIRP surveys have potential for a wide variety of analyses which can be useful at the institutional level (Keup, 2004). The CIRP survey data can provide valuable information on student success, satisfaction, and persistence. One study used the CIRP Freshman Survey and follow-up CSS data to relate academic, personal, and social expectations at the beginning of college and upon graduation (Griffith & McCoy, 2002). Several studies have examined college persistence, success, and satisfaction in relation to student characteristics and demographics (Astin, 2006; Hull-Toye, 1995; Keup, 1999; Rasmussen, 2002; Sax, Bryant, & Gilmartin, 2002; Woosley, 2005). For example, one study found that higher levels of student-faculty interaction were predictors of higher

degree aspirations (Arredondo, 1995). Demographic information collected in these surveys can also allow researchers to examine college persistence and overall student development with respect to student diversity, gender, and ethnicity (Cerna, Perez, & Sáenz, 2007; Chang, 2001; Hurtado, et al., 2006; Tsui, 1995; Zamani-Gallaher, 2007). Another study looked at survey response using the CIRP surveys administered at the beginning of college, in the spring of each subsequent year at college, and upon graduation (Clarkberg, Robertson, & Einarson, 2008a). Results of this study suggest that there are links between possessing engagement characteristics and the likelihood of responding to a survey of student engagement; thus demonstrating that survey results for any student engagement survey could be biased toward engaged, cooperative students (Clarkberg, et al., 2008a).

7. Indiana University Centre for Postsecondary Research – Student Experiences and Expectations Surveys (CSEQ, CSXQ, and CCSEQ)

Dr. Robert Pace developed the College Student Experiences Survey (CSEQ) at UCLA in the 1970's, and introduced it as a multi-institutional survey tool in 1979 (CSEQ, 2007). Pace's theory behind the CSEQ is that student time and effort are associated with the outcomes of the college experiences, and more specifically, that it is the *quality* of student engagement that impacts student growth and development (Ethington & Horn, 2007). As defined by Dr. Pace, quality of effort means that what students learn in college depends largely on the quality of effort they invest in the college experience (Pace, 1982). Since the CSEQ has been implemented for almost 30 years, the longitudinal data and analysis available can provide valuable insights into college student experiences over the long-term (Gonyea, Kish, Kuh, Muthiah, & Thomas, 2003; Pace, 1990; Pace & Swayze, 1992).

The College Student Expectations Questionnaire (CSXQ), introduced in 1998, was adapted from the CSEQ to assess the goals, motivations, and future plans of new students before college or early in the first year (CSEQ, 2007; Gonyea, et al., 2003; Pryor, 2005). Using the CSXQ as a pre-test and the CSEQ as a post-test toward the end of the academic year, institutions can assess the degree to which student and college expectations are met (CSEQ, 2007; Gonyea, et al., 2003; Pryor, 2005).

In consultation with Dr. Pace, Dr. Jack Friedlander began the initial work that led to the evolution of the Community College Student Experiences Questionnaire (CCSEQ) (CCSEQ, 2008). Since 1994, the CCSEQ has been housed in the Center for the Study of Higher Education at The University of Memphis and specifically targets community college students (CCSEQ, 2008).

The CSEQ and the CCSEQ examine quality of effort by asking students about their college experiences, including their curricular and extra-curricular activities. With over 150 items, the CSEQ provides colleges and universities with a comprehensive inventory of the student experience. The survey collects information about the student's background (e.g., age, sex, class, race and ethnicity, residency, major, and parent's education level), and asks questions about the student's experience with the institution in college activities, the college environment, and estimate of gains (Gonyea, et al., 2003). In addition to sharing questions on background information, the CSXQ shares 87 items in common with the CSEQ, including questions about college activities and campus environment (CSEQ, 2007).

The CSEQ takes approximately 20-30 minutes to complete, whereas the CCSEQ takes 20 minutes or less and the CSXQ is estimated to take 10-15 minutes. Both the CSEQ and CSXQ surveys are available on paper or online. The CCSEQ is a paper survey that is administered during class time.

Individual colleges participating in the CCSEQ are responsible for administering the survey in class and for shipping the completed questionnaires back to the University of Memphis (CCSEQ, 2008). Colleges receive their results and the frequency distribution of their data in a digital file which is readable by SPSS and compatible with several other formats to make further analyses by individual colleges possible (CCSEQ, 2008). The University of Memphis also provides hard copies of two reports: a frequency distribution of data and any identification numbers that students have selected. In addition, they are available for consultation and additional analyses if necessary (CCSEQ, 2008).

One research paper looked at response differences between students who completed the CSXQ on paper versus those who completed the survey online. Results showed that there was a difference in the two survey types, such that those who completed online version of the survey were more likely to submit complete data and to have higher expectations (Appalachian State University Office of Student Life & Learning Research).

Table 7-1 outlines the measurement goals of these three survey instruments according to the main survey websites (CCSEQ, 2008; CSEQ, 2007).

Table 7-1 Measurement Goals of the CSEQ, CCSEQ, and CSXQ Surveys
CSEQ
Quality of effort invested in using educational resources and opportunities
Perceptions of the emphasis on a diverse set of educational priorities
How efforts and perceptions relate to personal estimates of gains
CCSEQ
Who the community college students are and why are they attending college
Which facilities and opportunities at the community college are used extensively
Students' impressions of the community college
The progress students have made toward their stated goals
CSXQ
Student expectations of the nature and frequency of interactions with faculty members
Expectations of involvement with peers from diverse backgrounds
Use of campus learning resources and opportunities
Expectations of satisfaction with college
Expectations of the nature of college learning environments

Several studies have examined the psychometrics of the CSEQ, resulting in strong support for the reliability and/or validity of the survey (Gonyea, et al., 2003; Hu & Kuh, 2000; Lavelle & Rickord, 1997; Michael, Nadson, & Michael, 1983; Pace, 1984; Pace, Barahona, & Kaplan, 1985; Pace & Swayze, 1992; Pisani, 1994; Whitmire, 1999). The CSXQ is also believed to share the same psychometric properties as the CSEQ (Pryor, 2005). Although student self-reports are considered stable, (Pace, 1984; Pace, et al., 1985), one article suggests using caution in interpreting student self-reports due to the halo effect, or cognitive bias (Pike, 1998).

The quality of effort scales in the CCSEQ were also found to have strong psychometric properties (Ethington & Polizzi, 1996; Polizzi & Ethington, 1998). The reliability of the CCSEQ was also supported by Preston (1993), and a revised CCSEQ instrument targeted specifically for Austrialian students was found to have good psychometric properties (Waugh, 2001).

The Experiences with Diversity Index of the CSEQ represents a combination of items dealing with student experiences with diversity on campus. It is theorized that the more students interact in meaningful ways with people different from themselves, the more they gain in understanding and appreciating human diversity (Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Pascarella & Terenzini, 1991). Ten items from the CSEQ comprise the experiences with diversity index (Gonyea, et al. 2003).

Among other uses, the CSEQ and CCSEQ can be useful in helping individual institutions to:

- Determine program and institutional effectiveness,

- Measure learning outcomes and impact of campus environments (e.g., learning communities),

- Review accreditation processes,

- Examine efforts of academic affairs and student affairs divisions,

- Evaluate programming and student learning, and

- Assess and strive to increase student involvement (CCSEQ, 2008; CSEQ, 2007).

The CSXQ can also be useful for providing information relevant to (CSEQ, 2007):

- The research, evaluation, and assessment of the student experience,

- Enrollment management, student recruitment, and retention initiatives,

- Faculty development, advising, and academic support services,

- First-year experience programs,

- Orientation, residence life, and student activities (CSEQ, 2007).

The theory that quality of effort relates to specific student outcomes has been examined in several studies. For example, quality of effort was found to be important in impacting positive gains in career preparation (Polizzi & Ethington, 1998), and the breadth of involvement in another study was directly related to the breadth of student gains (Pace, 1982). Students generally develop skills and competencies consistent with the activities to which they devote the most effort (Kuh, et al., 1997). Ethington and Horn (2007) found that students' perceived personal and social development was influenced by the effort they exert in taking advantage of the opportunities provided by their institution. Active and collaborative learning among students is believed to be one of the best predictors of student gains (Kuh, et al., 1997; Lundberg, 2003; Pisani, 1994).

Quality of effort may not directly relate to academic outcomes, however, as one study did not find a relationship between student effort and academic outcome (Davis & Murrell, 1990). Results from another study also contrast the theory that university experiences result in specific gains. This Canadian study, which used data from York University students, found that the most important factor in predicting students' GPA and other skills development was their marks and skills prior to university, not the impact of student experiences as measured by the CSEQ (Grayson, 1999).

8. Indiana University Centre for Postsecondary Research – Student Engagement Surveys

8.1. National Survey of Student Engagement (NSSE)

8.1.1. Background and Purpose

The National Survey of Student Engagement (NSSE) was conceived at the Indiana University Centre for Postsecondary Research in early 1998 by a design team led by Peter Ewell and consisting of leading researchers in postsecondary education, including: Alexander Astin, Gary Barnes, Arthur Chickering, John Gardner, George Kuh, Richard Light, and Ted Marchese, with input from Robert Pace to help draft the survey instrument (Kuh, et al., 2001). This design team set out to produce a survey that:

- Consists principally of items that are known to be related to important college outcomes,

- Can be administered to students at both public and private four-year colleges and universities,

- Can be administered to freshman and senior-level students who have attended the institution for at least two terms,

- Can be administered to adequate samples at participating institutions, and

- Has some flexibility in content (NSSE, 2008).

The design team had three general criteria in mind when selecting items that might be included in the NSSE:

1. Is the item arguably related to student outcomes as shown by research?

2. Is the item useful to prospective students in choosing a college?

3. Is the item straightforward enough for its results to be readily interpretable by a lay audience with a minimum of analysis (NSSE, 2008)?

The theoretical framework underlying the NSSE is drawn from Pace's concept of quality of student effort, Astin's theory of student involvement, and Chickering and Gamson's principles of good practice in undergraduate education (Pike, 2006b). The design of the NSSE survey instrument (also known as The College Student Report) was based on

research literature relating particular classroom activities and specific faculty and peer practices to quality undergraduate student outcomes, as well as findings which suggest that the extent to which students are engaged in their studies impacts directly on the quality of student learning and their overall educational experience (Kuh, et al., 2001). Thus, the NSSE instrument was specifically designed to assess the extent to which students are engaged in effective educational practices and to identify the gains students achieve from their college experience. Many of the items included on the NSSE survey are derived from existing student questionnaires including the College Student Experiences Questionnaire (CSEQ), the Cooperative Institutional Research Program (CIRP) Freshman and follow-up surveys, and student and alumni surveys administered by the University of North Carolina (NSSE, 2008). Kuh (2003) describes the NSSE as a complement and extension of these research programs.

The initial field tests of the NSSE instrument were coordinated by Peter Ewell of the National Center for Higher Education Management Systems (NCHEMS) and George Kuh of the Center for Postsecondary Research and School of Education at Indiana University. The NSSE instrument went through several drafts and revisions by the design team, and input and feedback on the survey was sought from many groups of potential NSSE users at the national, state, and campus levels (Kuh, et al., 2001). While initial analyses revealed high face validity and produced evidence that the items were reliable, the design of the instrument was also informed and improved by additional research including focus groups, cognitive interviews, and expert design advice (Ouimet, Bunnage, Carini, Kuh, & Kennedy, 2004; Ouimet, Carini, Kuh, & Bunnage, 2001).

The results of the NSSE are intended to provide an estimate of how undergraduates spend their time and what they gain from attending university. Survey items on the NSSE are reported to represent empirically confirmed "good practices" in undergraduate education, such that they reflect behaviours by students and institutions that are associated with desired outcomes. The emphasis that the NSSE places on student engagement and good practice was intended to shift the focus of conversations about academic quality away from reputation- and resource-based rankings and toward issues that really matter to undergraduate learning such as outcomes (Lipka, 2007).

The NSSE is currently administered by the Indiana University Center for Postsecondary Research in cooperation with the Indiana University Center for Survey Research. As one of the most widely-used postsecondary surveys currently in use in North America, the NSSE correspondingly has a plethora of published literature available for review. The NSSE's widespread use has also spawned several other national instruments including the Beginning College Survey of Student Engagement (BCSSE), the Community College Survey of Student Engagement (CCSSE), the Faculty Survey of Student Engagement (FSSE), and the Law School Survey of Student Engagement (LSSSE), which are briefly discussed in a later section of this report.

8.1.2. Target Respondent Group and Institutional Participation

The target respondent group for the NSSE is students at both public and private four-year colleges and universities. The NSSE is administered to freshman and senior-level students at four-year colleges and universities who have attended the institution for at

least two terms. Based on total undergraduate enrolment, a random sample of first-year students and senior-level students is drawn from the student population such that sufficient numbers are sampled to allow for the kinds of disaggregation required to make sense of the data and to guide meaningful approaches to improvement (NSSE, 2008).

More than 1,200 different colleges and universities in the U.S. and Canada have participated in the NSSE since it was first administered in 2000, with 774 institutions participating in 2008. To date, the NSSE has been administered at the following Canadian universities:

- Malaspina University College, Nanaimo, BC
- Thompson Rivers University, Kamloops, BC
- University of British Columbia, Vancouver, BC
- University of British Columbia Okanagan, Kelowna, BC
- University of Victoria, Victoria, BC
- University of Alberta, Edmonton, AB
- University of Calgary, Calgary, AB
- University of Saskatchewan, Saskatoon, SK
- The University of Manitoba, Winnipeg, MB
- Concordia University, Montreal, QC
- École de technologie supérieure, Montréal, QC
- McGill University, Montreal, QC
- Université de Montréal, Montreal, QC
- Université du Québec à Chicoutimi, Chicoutimi, QC
- Université du Québec à Montréal, Montréal, QC
- Université du Québec à Rimouski, Rimouski, QC
- Université du Québec à Trois-Rivières, Trois-Rivières, QC
- Université du Québec en Abitibi-Témiscamingue, Rouyn-Noranda, QC
- Université du Québec en Outaouais, Gatineau, QC
- Université Laval, Quebec city, QC
- Memorial University of Newfoundland, St. John's Campus, St. John's, NL
- Dalhousie University, Halifax, NS
- Mount St. Vincent University, Halifax, NS
- Nova Scotia Agricultural College, Truro, NS
- Saint Mary's University, Halifax, NS
- University of King's College, Halifax, NS,

- University of Prince Edward Island, Charlottetown, PE
- Brock University, St. Catharines, ON
- Carleton University, Ottawa, ON
- King's University College at the University of Western Ontario, London, ON
- Lakehead University, Thunder Bay, ON
- Laurentian University/Université Laurentienne, Sudbury, ON
- McMaster University, Hamilton, ON
- Nipissing University, North Bay, ON
- Ontario College of Art & Design, Toronto, ON
- Queen's University, Kingston, ON
- Ryerson University, Toronto, ON
- Trent University, Peterborough, ON
- Université d'Ottawa/University of Ottawa, Ottawa, ON
- University of Guelph, Guelph, ON
- University of Ontario Institute of Technology, Oshawa, ON
- University of Toronto, Toronto, ON
- University of Waterloo, Waterloo, ON
- University of Western Ontario, London, ON
- University of Windsor, Windsor, ON
- Wilfrid Laurier University, Waterloo, ON
- York University, Toronto, ON

In response to the Ontario government's call for greater accountability and focus on the quality of the student's learning experience, all of the provincially-assisted universities in Ontario currently participate in a Canadian version of the NSSE survey (Jones, 2007). The results from the NSSE are intended to be used as a measure of the extent to which the resources provided by the government are being used to improve students' educational experiences. Canadian NSSE benchmark results are reported in Macleans Magazine (Maclean's Magazine, 2008).

8.1.3. Content and Length

The NSSE survey instrument asks students to report on the frequency of their participation in activities that represent good educational practice, their perceptions of the college environment associated with achievement and satisfaction, their educational and personal growth, and background demographic information. According to the NSSE website:

> NSSE intends to provide information about the extent to which different colleges exhibit characteristics and commitments known to be related to high-quality undergraduate student outcomes. To that end, The College Student Report contains items directly related to institutional contributions to student engagement, important college outcomes, and institutional quality. Items on actual student behaviour and perceptions of the extent to which the institution actively encourages high levels of engagement are included in The College Student Report. In general, the questions fall into three broad categories:
>
> • Institutional actions and requirements include specific items about the curriculum (e.g., how much reading and writing have you done?) and about faculty behaviour (e.g., have you worked with a faculty member on a significant scholarly task such as a research project?).
>
> • Student behaviour includes items about how students spend their time inside and outside of the classroom (e.g., have you worked with other students outside of class to prepare class assignments?).
>
> • Student reactions to college include items that seek students' perceptions about the quality of their own experiences (how would you rate the overall quality of your experience here?). This last category also includes questions about self-reported gains in skills that students feel they have developed as a result of attending college (e.g., has college helped you to develop your ability to think critically and analytically?) (NSSE, 2008).

Based on the instruments available for viewing on the NSSE website, there appear to be approximately 105 questions on the Canadian English web version of the survey, while the U.S. English web version contains approximately 101 questions (NSSE, 2008). It is reported that students typically complete their survey in 15 minutes or less. The

Canadian and U.S. versions of the NSSE appear to differ mainly in terms of demographics.

In order to allow institutions to obtain tailored information to guide improvement, the NSSE is designed to accommodate alternative sets of questions especially suited to particular types of institutions, as well as the ability to add questions designed by colleges and universities themselves.

In order to facilitate institutional benchmarking, five benchmarks of effective educational practice were created based on a limited number of items from the NSSE (Kuh, et al., 2001; NSSE, 2008). The five benchmarks are:

1. Level of Academic Challenge,

2. Active and Collaborative Learning,

3. Student Interactions with Faculty Members,

4. Enriching Educational Experience, and

5. Supportive Campus Environment.

According to Kuh, et al. (2001):

> Educationally effective colleges and universities score above average on all five benchmarks in a manner that is consistent with their mission and students' aspirations and educational goals. Students who are engaged at a reasonable level in all five of these areas gain more than do those who are engaged in only one or two areas. Thus, students' scores on the benchmarks are best interpreted together, taking into account the institution's mission and its learning and personal development objectives for undergraduate students (p. 5-6).

In addition to the benchmarks, some researchers have developed other ways to examine and use the NSSE results. For example, Pike (2005, 2006a, 2006b) has developed a set of "scalelets", which are smaller alternative groupings of items that consist of a limited number of survey items that provide measures of specific aspects of the educational experience.   The purpose of developing the scalelets was to provide college- and department-specific information from a few highly related questions that suggest specific improvement actions.   In another development related to the NSSE, Ouimet and Smallwood (2005) developed the Class-Level Survey of Student Engagement (CLASSE) instrument, which is similar in content to the NSSE instrument, but intended to be used at the individual class level.

8.1.4.   Administration

The NSSE is currently administered by the Indiana University Center for Postsecondary Research in cooperation with the Indiana University Center for Survey Research. The

survey is administered each spring term (February through May) to random samples of first-year and senior-level students at baccalaureate-granting colleges and universities.

Both web-based and paper survey administration modes are available and institutions must choose between a web-only, a paper-only, or a "web+" mode in which the survey is administered primarily online with paper follow-up for a sample of non-respondents. NSSE recommends the web-based modes, as these enable an institution to receive a larger sample size for the same cost, leading to more accurate population estimates (NSSE, 2008).

In taking part in the NSSE, it is the responsibility of participating institutions to:

- Provide a student population data file containing contact information for all first-year and senior-level students (e-mail and/or postal mailing addresses, depending on the mode of administration),

- Work with NSSE to customize invitation materials, and

- Partner with NSSE to ensure compliance with federal guidelines pertaining to research with human subjects.

It is the responsibility of NSSE administration to:

- Select random samples from student population files (half first-year and half senior-level),

- Distribute survey invitations to all sampled students,

- Follow-up with non-respondents,

- Oversee data collection and provide technical support, and

- Prepare institution-specific reports of institutional results.

8.1.5. Psychometrics

Most of the items on the NSSE survey instrument have been used in other long-running, well-regarded college student research programs, such as UCLA's Cooperative Institutional Research Program and Indiana University's College Student Experiences Questionnaire Research Program. The specific psychometric properties of the NSSE have been reported on extensively by Kuh (2001) and Kuh, et al. (2001). In general, the reported results support the reliability and validity of the survey. For example, tests of validity were conducted, and overall, the pattern of responses from first-year students and seniors suggest the items are measuring what they are supposed to measure. In addition, patterns of responses to different clusters of items appear to discriminate among students both within and across major fields and institutions. Test-retest reliability across all items was reported to be 0.83, indicating a fair degree of stability in students' responses (Kuh, 2001), and the NSSE website reports test-retest correlations for

benchmarks ranging from 0.69 to 0.78 (NSSE, 2008). Additional findings from stability analysis suggest that institution-level NSSE data are relatively stable from year to year (NSSE, 2008).

Kuh (2001) and Kuh, et al. (2001) also address the issue of the validity of self-reports and indicate that the NSSE was designed to satisfy the conditions under which self-reports are likely to be valid. In addition, improvements to the NSSE instrument were implemented early in its development based on additional qualitative tests, thereby contributing to its validity (Ouimet, et al., 2004; Ouimet, et al., 2001).

A concern in all survey research is the extent to which non-respondents may differ from respondents. Given that the national response rate for the NSSE in 2007 was 36 per cent and that bias can be introduced into survey data as a result of non-response, this is an area of concern when interpreting NSSE results. Although it has been reported that few meaningful differences exist between NSSE respondents and non-respondents in terms of their engagement in educationally effective practices (Kuh, 2001), other research suggests that respondent representativeness may be questionable and that measures of student engagement may be affected by differential survey response patterns (Clarkberg, Robertson, & Einarson, 2008b; E. D. McInnis, 2006; Porter & Umbach, 2006; Porter & Whitcomb, 2005). Furthermore, Pike (2008) concludes that the effects of non-response bias are complex, and that weighting adjustments may not adequately correct for known differential response patterns.

In terms of response modality, responses to NSSE web and paper surveys have shown small but consistent differences, where the web mode of administration results in more favourable responses to the survey (Carini, Hayek, Kuh, Kennedy, & Ouimet, 2003; NSSE, 2008).

8.1.6. Validity as a Measure for Diverse Student Groups

In an extensive article, Kuh, Kinzie, Cruce, Shoup and Gonyea (2007) review a host of studies designed to determine the relationships between student engagement as measured by the NSSE and selected measures of success in college for students from different racial and ethnic backgrounds attending different types of four-year colleges and universities. Based on a series of studies (some of which are also outlined in other articles), the authors draw four major conclusions related to diversity:

1. Engagement has positive, modest effects on grades and persistence for students from different racial and ethnic backgrounds, even after controlling for key pre-college variables;

2. Engagement has compensatory effects on first-year grades and persistence to the second year of college at the same institution for historically underserved students;

3. The NSSE instrument works equally well for students of color and white students in different institutional contexts; and

4. Context-specific judgments are needed when interpreting the results from a few items for students attending certain minority-serving institutions.

Laird, Bridges, Morelon-Quainoo, Williams, and Holmes (2007) also have used NSSE data to compare engagement levels of different racial and ethnic groups, and Zhao, Kuh, and Carini (2005) have studied engagement, as measured by the NSSE, among international and American students.

Several studies report on NSSE findings that are relevant to a more general discussion of diversity. For example, Kuh (2003) explains that the NSSE asks four questions specifically about students' exposure to and experiences with diversity. He goes on to report that students who indicate more experience with diversity tend to be more involved in other effective educational practices and report greater gains in learning and personal development. Umbach and Kuh (2003) also report results that generally corroborate other research which shows positive relationships between diversity and desirable outcomes of college, such that students who engaged in diversity-related activities more often reported greater engagement-related activities, more satisfaction, and greater self-reported gains.

In terms of application to populations outside of the U.S., all publicly-funded Ontario universities currently participate in the NSSE, these universities report using their NSSE results to identify strengths and areas for improvement (Jones, 2007). However, some concern has been expressed about the lack of longitudinal data and the use of an instrument developed in the U.S. and applied in Canada with only minimal changes (Jones, 2007). In other parts of the world, the NSSE instrument has been used as the basis for the Australasian Survey of Student Engagement (AUSSE), which is discussed in a later section of this report.

8.1.7.   Utility at the Institutional Level

As part of participation in the NSSE, institutions receive detailed analyses and information tools including customized institutional reports, benchmark reports, an institutional data file, and an Accreditation Toolkit, among other options (NSSE, 2008). Each year, NSSE also releases a detailed annual report containing background information and selected national results (NSSE, 2007).

According to the NSSE website, results from the NSSE are expected to be useful to institutions in identifying and focusing on aspects of the undergraduate experience that can be improved. Schools are reported to be using their NSSE results in many ways, including for informational contribution toward:

- Assessment and improvement initiatives,

- Benchmarking,

- Accountability,

- Institutional research,

- Accreditation and self-studies,

- Retention efforts,

- Curricular reform,

- Level of academic challenge,

- Active and collaborative learning improvements,

- Student-faculty interaction improvements,

- Enriching educational experiences improvements,

- Supportive campus environment improvements,

- Alumni outreach,

- Grant writing,

- Recruitment,

- Faculty and staff development,

- Student satisfaction, and

- Performance indicators (NSSE, 2008).

In addition, a host of published articles report on how the NSSE results may be used effectively by participating institutions (Ahren, Ryan, & Massa-McKinley, 2008; El-Khawas, 2003; Hayek & Kuh, 2004; Kuh, 2005, 2007a; Umbach & Wawrzynski, 2005). For example, Ahren, et al. (2008) interviewed educators at several institutions who were responsible for administration of the NSSE and found that five themes arose related to successful understanding and use of NSSE results:

1. Ensuring collaborative relationships among faculty, student affairs educators, and institutional researchers so that findings can be communicated and addressed effectively;

2. Triangulating results to confirm that findings are consistent across multiple surveys and assessment methods and to provide a broader context for interpretation of results;

3. Learning more about students based on their survey responses; for example, looking at the results of particular sub-groups of respondents to provide insights into specific subpopulations;

4. Identifying strengths and weaknesses, forming objectives, and routinely assessing progress toward goals; and

5. Using data to assess and ultimately enhance the first-year experience in terms of student achievement, critical thinking, social development, and persistence.

Based on student engagement research, Kuh (2007) proposes six concrete steps that institutions can take to engage students who may face challenges to their persistence and success in college:

1. Teaching first-year students as early as possible how to use college resources effectively;

2. Making the classroom the locus of community;

3. Developing networks and early-warning systems to support students when they need help;

4. Connecting every student in a meaningful way with some activity or positive role model;

5. Making effective programs and practices widely available; and

6. Removing obstacles to student engagement and success.

Kuh advocates these strategies as means toward increasing the odds that students will "get ready, get in, and get through" (p. 6). In addition, in *Student Success in College: Creating Conditions That Matter*, Kuh et al. (2005) describe the results of case studies of 20 high-performing colleges and universities, including large, small, urban, and special mission institutions that had higher-than-predicted graduation rates and higher-than-predicted scores on the five NSSE clusters of effective educational practice. This "best practices" approach was part of collaboration between the National Survey of Student Engagement (NSSE) and the American Association for Higher Education (AAHE) and was called Project DEEP (Documenting Effective Educational Practice).

8.1.8. Predictive Value for Student Success and Persistence

It is widely reported that various positive outcomes are associated with higher levels of student engagement at the postsecondary level (Astin, 1993; Pace, 1984; Pascarella & Terenzini, 2005; Tinto, 1987), and research has specifically attempted to link the results of the NSSE to such desirable outcomes (Carini, Kuh, & Klein, 2006; Gordon, et al., 2008; Kuh, Cruce, et al., 2007; Kuh, et al., 2006; Kuh, Kinzie, et al., 2007; Kuh, et al., 2005). However, some research has failed to find such links between NSSE results and positive student outcomes, and closer examination of other research suggests that the effects may be somewhat modest. For example, Kuh, Cruce, et al. (2007) examined multiple sources of data including student responses to NSSE, campus institutional records including student academic and financial aid, and information about students' background and pre-college experiences including academic achievement. Results

generally supported only a modest positive effect of student engagement on grades in both the first and last year of college as well as on persistence to the second year at the same institution, even after controlling for specific pre-college characteristics and other variables. The effects of engagement were found to be generally in the same positive direction for students from different racial and ethnic backgrounds.

In other similar research, Carini et al. (2006) attempted to link results from the NSSE to student performance indicators, such as SAT scores, GPA, and a series of newly developed cognitive and performance tests. In general, although many of the observed relationships between measures of engagement and performance indicators were reported to be statistically significant, the magnitude of the effects was small. Thus, the authors conclude that although their research suggests that student engagement is positively linked to desirable student outcomes such as critical thinking and grades, the relationship is not as robust as they would expect. When Gordon et al. (2008) attempted to link results from the NSSE to student outcomes, including GPA, student retention, job attainment, and post-baccalaureate education plans, results revealed that the NSSE benchmarks provided very little predictive power on these outcomes. Specifically, both the NSSE benchmarks as well as Pike's scalelets provided only modest contributions to explaining student outcomes, although some individual NSSE items were found to be better predictors. Given that these results are limited to the data from one institution, further research is needed. However, the authors conclude that there may be limitations on using the NSSE benchmarks as indicators of institutional effectiveness, and that the NSSE benchmarks may be better conceived as descriptions of institutional character, not ability (Gordon, et al., 2008).

An additional finding from Carini et al. (2006) was that when students with the highest and lowest SAT scores were examined separately, stronger positive relationships were observed between engagement and performance measures for lower ability students as compared with higher-ability students. These authors conclude that low-ability students may receive the greatest payoffs from engagement, particularly in the areas of quality of relationships, a supportive campus climate, integration of diversity into coursework, student-faculty interaction concerning coursework, and reading and writing. Thus, the relationship between engagement and positive educational outcomes may be more complex, such that further research may be required to clarify and expand upon our current understanding.

8.2. Other Student Engagement Surveys Related to the NSSE (HSSSE, BCSSE, LSSSE, and FSSE)

Based on the success of the NSSE, the following four surveys have recently surfaced to gain an understanding of student engagement from the perspective of high school students, entering college students, law school students, and faculty. Note that a description of the application of the NSSE model to two-year community college institutions follows in a separate section.

The High School Survey of Student Engagement (HSSSE), started in 2004, is an annual survey designed to assess the extent to which high school students engage in educational practices associated with high levels of learning and development (HSSSE; Kuh, 2007b). This survey collects data on student characteristics, time spent on various activities, teacher-student contact, academics, experiences with diversity, perceptions of the school environment, student empowerment, and attitudes (HSSSE, 2005a). Results from the HSSSE can help high schools establish priorities in guiding their improvement efforts (HSSSE, 2005a; Yazzie-Mintz, 2007) and can identify the level of preparedness that high school students have for postsecondary school (Kuh, 2007b; McCarthy & Kuh, 2006).

The Beginning College Survey of Student Engagement (BCSSE), which was piloted in 2004, collects data about entering college students' high school academic and co-curricular experiences, as well as their expectations for participating in educationally purposeful activities during the first college year (BCSSE; Pike, 2004). The BCSSE is designed to be paired with a NSSE administration at the end of the first college year, thereby providing an in-depth understanding of first-year student engagement (BCSSE). Ninety-four institutions participated in the BCSSE in 2008 (BCSSE), and four Canadian universities have participated in the BCSSE to date (Carleton University, University of Calgary, York University, and University of Toronto) (BCSSE, 2007; University of Toronto, 2007b).

Also based on the NSSE, the Law School Survey of Student Engagement (LSSSE) was piloted in 2003 and is designed to provide reliable, credible information about the quality of the law student experience that can aid in improving education, enhancing success, informing accreditation efforts, and facilitating benchmarking efforts (LSSSE, 2004, 2007). The LSSSE survey focuses on the teaching and learning activities that involve all types of students at all types of law schools (LSSSE, 2004; O'Day & Kuh, 2006). Furthermore, this survey instrument provides a way of comparing law schools based on the quality of the educational experience and can shift the focus away from ranking schools, which is argued to have little to do with the actual quality of education (Kopolovic, 2007; LSSSE, 2008c; O'Day & Kuh, 2006). From 2004 to 2008, a total of 148 institutions have participated in the LSSSE, including 15 Canadian law schools (LSSSE, 2008b).

The Faculty Survey of Student Engagement (FSSE), also piloted in 2003, is designed to measure faculty expectations for and observations of student engagement in educational practices that are known to be linked with learning and development. The FSSE is a

companion survey to the NSSE, and when results of the two surveys are paired, it offers a comprehensive look at student engagement from both the student and faculty perspectives (FSSE). The FSSE categories are similar to the NSSE benchmarks: academic and intellectual experiences, evaluations of student performance, mental activities, educational and personal growth, enriching educational experiences, quality of student relationships, and institutional environment (Caulfied, 2005). In 2008, 160 institutions participated in the FSSE (FSSE, 2008a). Within the Canadian context, the University of Ottawa participated in the FSSE in 2006 (University of Ottawa, 2006). Institutions choose whether some of the survey questions are course-based or based on faculty perceptions of the typical student they teach, the latter of which allows for more comparable items with the NSSE.

The BCSSE, LSSSE, and FSSE projects are coordinated by the Indiana University Center for Postsecondary Research, whereas the HSSSE is coordinated by the Indiana University School of Education, Bloomington. The target respondents and survey format of these instruments is outlined in Table 8-1 below.

Table 8-1 Survey Instruments Reviewed		
Survey	**Target Respondents**	**Survey Format**
HSSSE	High school students	Paper
BCSSE	Incoming first-year students prior to the start of fall classes	Paper, web-based, or both
LSSSE	All basic law degree students that have attended law school for at least one semester	Web-based survey
FSSE	Faculty of degree-granting institutions that are concurrently administering the NSSE or participated in the NSSE in the previous year	Web-based survey

Since these surveys are based on the NSSE survey, it can be assumed that they would share a similar level of reliability and validity as well as the same general concerns. For example, the surveys are designed to satisfy the conditions under which student self-reports are likely to be valid (LSSSE, 2008a). These survey instruments are also relatively new and therefore there is a paucity of information and research regarding the specific psychometrics of the HSSSE, BCSSE, LSSSE, and FSSE. However, with regard to the LSSSE, responses to the survey items were found to be approximately normally distributed and the patterns of responses were found to discriminate among students within and across institutions thus indicating that the survey demonstrates validity (LSSSE, 2008a). Furthermore, the items on the survey appear to be measuring what they are intended to measure and discriminate among students in predictable ways indicating that the instrument is reliable (LSSSE, 2008a).

The FSSE contains specific items related to student diversity. In particular, faculty members are asked to consider diversity in all aspects of their course, and whether they feel that their course is inclusive of diversity related issues (FSSE). Results using demographic information from these surveys can also reveal important issues relating to gender differences (Laird, 2007) and ethnic diversity. For example, one high school implemented multiple changes aimed at engaging minority students who indicated on the HSSSE that they did not feel that they fit in with their high school community (HSSSE, 2005b). Similarly, LSSSE data is also used to better understand whether race or ethnicity plays a significant role in student engagement (LSSSE, 2007).

Both the BCSSE and the FSSE were developed as companion surveys to the NSSE. Institutions that participate in the NSSE as well as the BCSSE or FSSE can receive special combined reports (BCSSE/NSSE report or the FSSE/NSSE report) that provide a more detailed and in-depth view of student engagement (FSSE, 2008b; University of Toronto, 2007a). High schools can compare their HSSSE results against all other participating schools (HSSSE, 2005c), and law schools can compare their results to identified peer schools (LSSSE, 2007, 2008c; University of Windsor, 2006). Additionally, special analyses for all four surveys can provide for more detailed comparisons between particular student (or faculty) groups, provided that respondent anonymity is not compromised. Table 8-2 outlines the utility of these survey instruments at the institutional level.

Table 8-2 Utility of the HSSSE, BCSSE, LSSSE, and FSSE Surveys at the Institutional Level
HSSSE
Compare individual school students with other HSSSE respondents
Identify student engagement features that affect outcomes
Useful as a complement to performance tests
Stimulate discussions on teaching and learning
Guide student improvement activities
BCSSE
Aid in the design of orientation programs, student services, and other programmatic efforts
Useful in shaping initiatives that align the first-year experience of students with recognized effective educational practices
Useful for student recruitment and retention
Useful for academic advising, faculty development, accreditation
Assessment, improvement focus, and curricular reform
Results can be compared with NSSE results
LSSSE
Assess institutional performance and guide improvement efforts
Useful for student recruitment and promotion
Useful for self-studies, accreditation, and curricular reform
Results may also be useful for alumni outreach and grant proposals
Benchmarking, or comparisons with other law schools
Making results public to increase the public's understanding of law school quality with regard to teaching and learning
FSSE
Guiding faculty development programs, workshops, and retreats
Scholarships of teaching and learning
Institutional research, assessment, and improvement
Useful for curricular reform, accreditation, and self-studies
Help professors enrich the college experience of their students
Results can be compared with NSSE results

8.3. Community College Survey of Student Engagement (CCSSE)

8.3.1. Background and Purpose

The Community College Survey of Student Engagement (CCSSE) was first established in 2001 by the Community College Leadership Program at The University of Texas at Austin. CCSSE works in partnership with NSSE (established in 1998), which is administered to first-year and senior-level students in four-year institutions. CCSSE was created to address the need for a student engagement survey specifically designed for community and technical colleges in order to assess quality in community college education (McClenney, 2006). According to the main website, CCSSE is grounded in research about what works in strengthening student learning and persistence (CCSSE, 2008b).

The headquarters of CCSSE are located at the Community College Leadership Program at The University of Texas at Austin. The National Advisory Board is chaired by Dr. Peter Ewell, Vice President at the National Center for Higher Education Management Systems. Members include representatives from key partner organizations, five community college presidents, and two state directors of community colleges (CCSSE, 2008b).

Community colleges distinguish themselves through their efforts in teaching and learning and putting students first. While community colleges often pioneer new strategies in curriculum, teaching strategies, and support services for students, they often don't have sufficient access to tools that help them assess their initiatives and measure their progress toward key goals specifically related to the characteristics of their diverse student populations (CCSSE, 2008b). The intention of CCSSE was to produce new information about the performance and quality of community colleges, to provide information to aid in improving student learning and retention, and to provide policymakers and the public with more appropriate ways to view the quality of undergraduate education. CCSSE results help colleges focus on student learning and retention and identify areas in which community colleges can improve their programs and services for students (CCSSE, 2008b).

The theoretical background of the CCSSE is based on the combined work of Pace's student effort and measuring the quality of the student experience (Pace, 1984), Astin's theory of student involvement (Astin, 1993), the principles of good practice in undergraduate education (Chickering & Gamson, 1987), and further development on the concepts of student engagement (Kuh, 2001; Kuh, et al., 1997; McClenney, 2007).

CCSSE's national benchmarks of effective educational practice focus on institutional practices and student behaviours that promote student engagement and are reported to be positively related to student learning and persistence. CCSSE's National Benchmarks of effective educational practice in community colleges are:

1. Active and Collaborative Learning,

2. Student Effort,

3. Academic Challenge,

4. Student-Faculty Interaction, and

5. Support for Learners (CCSSE, 2008b; McClenney, 2006).

These five benchmarks consist of 38 conceptually-related engagement items from the survey that reflect many of the most important aspects of the student experience (CCSSE, 2007). The benchmarks measure student behaviours that are contributors of student engagement; effective teaching, learning, and persistence (CCSSE, 2007; McClenney, 2006). Benchmark scores are standardized to provide individual colleges an easy way to compare their own performance across benchmarks and among groups of similar colleges (CCSSE, 2007; McClenney, 2006).

Since the CCSSE and NSSE work together in partnership, it is important to identify the similarities and differences between these two survey tools. The following points were derived from the main CCSSE website (CCSSE, 2008b).

Similarities between CCSSE and NSSE

- CCSSE and NSSE are both based on effective practice in undergraduate education research, and focus on educational practices and student behaviours that research shows are connected to desired outcomes of college.

- CCSSE and NSSE share a strong interest in institutional improvement and a strong companion interest in influencing the definition and public understanding of "quality" in postsecondary education.

- Both surveys rely on student reports regarding their undergraduate experience.

- There is intentional and substantial overlap in the content of the two surveys. The common items provide useful data for future research jointly conducted by CCSSE and NSSE.

- National benchmarks for student engagement have been developed for NSSE and are publicly available for CCSSE starting with 2003 data.

- The two initiatives have common funders (The Pew Charitable Trusts and the Lumina Foundation for Education) and co-sponsors (The Pew Forum on Undergraduate Learning and The Carnegie Foundation for the Advancement of Teaching). CCSSE and NSSE leaders participate on each others' advisory boards, and they are committed to collaborative work, both on common concerns and in locales where two- and four-year institutions are part of the same system.

Differences between CCSSE and NSSE

- The institutions served by CCSSE and NSSE are very different in terms of mission, student populations, and resources.

- Development of the CCSSE instrument involved the deletion of inappropriate items (for example, those that assume on-campus residency) and the addition of new items with emphasis on technical education, student and academic support services, and student retention.

- There are substantial differences in the sampling and survey administration procedures for the two surveys.

- There are anticipated differences in the substantive nature of national benchmarks derived from each of the surveys. While the NSSE survey randomly selects students, CCSSE draws a stratified random sample of credit classes at participating colleges, and the survey is administered during class sessions.

- Public reporting of survey results is a condition of participation for CCSSE but is at the discretion of participating institutions for NSSE.

8.3.2.   Target Respondent Group and Institutional Participation

The CCSSE instrument is intended specifically for community college students enrolled in a 2-year program. The 2007 CCSSE Cohort included more than 310,000 community college students from 525 institutions in 48 states and the Marshall Islands. Canadian participation includes Douglas College in Coquitlam, B.C. and Nova Scotia Community College (CCSSE, 2008a). Eighteen states have committed to using the CCSSE on a statewide basis, and, as of 2007, the CCSSE college membership represented approximately 50 per cent of U.S. community colleges (McClenney, 2007).

8.3.3.   Content and Length

The CCSSE survey instrument (also called The Community College Student Report) asks students about their college experiences such as:

- How they spend their time,

- What they feel they have gained from their classes,

- How they assess their relationships and interactions with faculty, counsellors, and peers,

- What kinds of work they are challenged to do, and

- How the college supports their learning (CCSSE, 2008b).

The survey asks questions about institutional practices and student behaviours that are reported to be highly correlated with student learning and retention. The survey contains

approximately 110 individual questions and the estimated completion time is 35-45 minutes (CCSSE, 2008b).

8.3.4.　　　Administration

The CCSSE survey is administered directly to community college students in randomly selected credit courses during the spring term (March-April) (CCSSE, 2008b). The instrument is a paper survey that must be completed using pencils. The required number of course sections to be surveyed is determined by the total sample size needed to reduce sampling error and to ensure valid results.   Sample sizes range from approximately 600 to approximately 1,200 students, depending on institutional size. For colleges with less than 1,500 students, the targeted sample size will be about 20% of total credit enrolment. A college also may elect to increase its sample size to support analysis of particular areas of the college or issues of local interest (CCSSE, 2008b).

8.3.5.　　　Psychometrics

In 2006, CCSSE completed a major validation research study that examined the relationship between student outcomes and student engagement from three different datasets (McClenney & Marti, 2006). This research concluded that the CCSSE is a valid measure of institutional processes and student behaviours that impact student outcomes since there was strong consistency across the three studies (McClenney & Marti, 2006). The authors confirmed that student engagement was linked to positive academic outcomes in the community college context, and these findings were also consistent across the three datasets (McClenney & Marti, 2006). Confirmatory factor analysis showed that modeling the data from CCSSE can closely reproduce the empirical results, and that the survey instrument is stable from year to year (McClenney & Marti, 2006). In another study, factor analysis, repeat survey administration, and regressing grade point averages (GPA) on each of the latent constructs in the models were used to test measurement invariance, reliability, and validity, respectively (Marti, 2006). Results of this study indicated that the CCSSE instrument derives reliable and valid measures of student engagement within the two-year community college sector (Marti, 2006).

With respect to CCSSE's benchmarks, several limitations in using factor analysis to create benchmarks were identified, and to overcome these limitations, the final benchmarks were established by CCSSE's technical advisory panel, who took into account factor analysis, reliability results, and expert judgement (McClenney, 2006; McClenney & Marti, 2006). The benchmark scales were found to have reasonable reliability measures despite the limitations of using Cronbach's alpha as a measurement tool for benchmark reliability (McClenney & Marti, 2006). One study identified that the Support for Learners benchmark was consistently correlated with student persistence (McClenney & Marti, 2006). In another study, results from test models demonstrated that there was a positive relationship between GPA and four of the five benchmarks: Active and Collaborative Learning, Student Effort, Academic Challenge, and Student-Faculty Interaction; however the Support for Learners benchmark did not demonstrate a positive relationship with GPA (Marti, 2004). Engagement benchmarks were also shown to be predictably related to gain factors in academics, personal development, and career-related items (McClenney & Marti, 2006).

Although the three studies described above all demonstrated that the CCSSE was a reliable and valid instrument, it would be prudent to consider that there is an apparent lack of impartial, peer-reviewed literature examining the psychometrics of the CCSSE.

8.3.6. Validity as a Measure for Diverse Student Groups

Information related specifically to the validity of this instrument as a measure for diverse student groups does not appear to be available. However, some research has been conducted to examine CCSSE results among diverse student groups, and this research is summarized briefly below.

In contrast to university students, community college students tend to be non-traditional students with respect to age, responsibility level, and academic background. One study investigated the relationship between college student engagement and students who had factors making them "at-risk" of not completing their studies (where risk factors included: delayed entry into college, part-time student status, first-generation college student, working 30 or more hours per week, being academically under-prepared, and being financially independent) (DiMaria, 2006). Interestingly, this study found that students who were "at-risk" were *more* engaged in the college experience than their peers, and were also more likely to have lower educational aspirations and be generally less successful with respect to grades and persistence (DiMaria, 2006).

Another small study looked at adult college student engagement, where "adult" was defined as 18 years or older, working 25 or more hours per week, and/or being responsible for raising a child while in college. A conceptual model of adult student engagement was tested with data from the CCSSE, and results found that adult community college students need opportunities to experience belonging, competency, and autonomy in order to engage and succeed.

Although the CCSSE survey is typically administered in the United States, two Canadian colleges have used this instrument. Feedback from the first administration of the CCSSE at Nova Scotia Community College was generally positive, although some concerns were expressed with regard to the need for changing some demographic questions to better reflect a Canadian context (S. Drapeau, pers. comm.). Therefore, with alterations to some survey questions, it is likely that the CCSSE is a relevant tool for community colleges outside of the United States.

8.3.7. Utility at the Institutional Level

In addition to individual college participation, a group of colleges with common interests, characteristics or locations may join together to form a CCSSE consortium. Each college in a consortium receives an institutional report showing the college's performance compared to other members of the consortium in aggregate and to the *CCSSE* Cohort of colleges. The designated consortium leader receives institutional reports for each institution in the consortium, which provide benchmarks, frequencies, and means with comparisons to benchmark and item data for other members of the consortium in aggregate and to the *CCSSE* Cohort of colleges. With a written data-sharing agreement between colleges, electronic versions of the consortium report may be provided to each

college in the consortium. Each consortium may add up to 15 unique multiple-choice questions to the survey, and CCSSE will report the frequency data for these additional questions. Participants may also request reports tailored to their requests, special consultation, workshops, and technical assistance from CCSSE (CCSSE, 2008b).

Results of the CCSSE are public, and include national benchmarks and institutional benchmark scores for five key areas of engagement. The CCSSE website stresses that each community college's performance should be considered in terms of its mission, institutional focus, size, programs, and student characteristics, and clearly states comparison of survey results between individual institutions is not recommended as it would likely be misleading (CCSSE, 2008b; McClenney, 2006). The main CCSSE website offers the following suggestions regarding how the CCSSE can be useful to individual institutions:

- Benchmarking, or establishing national norms on educational practice and performance.

- A diagnostic tool that can help to identify areas in which a college can enhance students' educational experiences.

- A monitoring device that can document and improve institutional effectiveness over time.

- Assessing institutional quality as it directly pertains to the student learning experience. Participating colleges are using the concrete feedback provided by the survey to identify and implement needed changes in policy and practice.

- CCSSE's national and consortium benchmarks make it possible for community colleges to compare their own performance and practice to that of other similar colleges — large or small, and urban-, suburban-, or rural-serving.

- Some states and community college systems already are adopting CCSSE as part of statewide performance, quality improvement, and/or accountability systems.

- Regional accrediting associations are making their institutional members aware of the value of the survey as part of institutional self-study and quality improvement.

- Researchers at The University of Texas at Austin and elsewhere will have unprecedented opportunities to describe and analyze the performance of U.S. community colleges and their impact on students.

- The combined databases from CCSSE and NSSE will eventually provide important insights about the higher education system within states and nationally.

Furthermore, individual institutions can use the results of the CCSSE to intentionally structure the college learning experience with student engagement in mind (CCSSE,

2007; McClenney, 2004, 2006; Reynolds, 2007). One CCSSE article gives specific examples of how some colleges have made changes that address weaknesses identified in the survey (CCSSE, 2007). In particular, CCSSE findings from the first five years of data suggest the following five strategies to improve student engagement at the institutional level (CCSSE, 2007):

- Set High Expectations and Clear Goals: Students will be inspired to work hard to achieve high expectations. Providing specific academic advice, planning, and support can help students set appropriate goals and a clear direction on how to attain their goals.

- Focus on the Front Door: Since community colleges typically lose students in their first semester of college, a focus on helping students succeed through their first semester can improve student retention.

- Elevate Developmental Learning: Providing appropriate levels of student support by means of early intervention and remediation specifically to academically under-prepared students can help students succeed in their classes.

- Use Engaging Instructional Approaches: Improving on the in-class opportunities for student engagement such as working with other students, class discussions, and using engaging instructional strategies can help with successful student engagement.

- Make Engagement Inescapable: Such varied initiatives as required student-faculty interaction, group projects, and learning communities will encourage student engagement from all angles of the college experience.

8.3.8. Predictive Value for Student Success and Persistence

Although research relating to CCSSE results as related to student outcomes is limited, engagement benchmarks have been shown to be related to gain factors in GPA, personal development, and career-related items, as discussed above (Marti, 2004; McClenney & Marti, 2006). Results from the CCSSE can also determine what services students need but are not receiving early on in college, which can help institutions to improve the accessibility of these services during the first few weeks of the college experience (Ashburn, 2007).

8.4. Survey of Entering Student Engagement (SENSE)

8.4.1. Background and Purpose

In 2007, CCSSE extended its commitment to helping community and technical colleges improve student outcomes with the Survey of Entering Student Engagement (SENSE), which focuses on areas strongly affecting student success in the earliest weeks of college (SENSE, 2008). SENSE was developed by educational leaders from the Community College Leadership Program at The University of Texas at Austin and a Technical Advisory Panel of nationally recognized experts (SENSE, 2008). Student persistence, particularly in the first semester of college is a significant concern for community colleges. Thus, if colleges can help their students succeed through the first semester, the chances that those students will continue to succeed and ultimately attain their educational goals would be greatly enhanced (SENSE, 2008). The SENSE initiative can help community colleges focus on what entering students see, hear, and do during the first few weeks of their college experience so that colleges can use this information to increase engagement and produce more successful outcomes for larger numbers of students (SENSE, 2007, 2008).

To assist individual institutions in their efforts to better understand and improve upon the early student experience, survey data is collected, analyzed, and reported back to participating colleges. Data can be useful for improving course completion rates and rates of student persistence beyond the first term of enrolment (SENSE, 2008).

SENSE is designed to provide a clear picture of student behaviours in the first few weeks of college and the institutional practices that affect students during this critical time. According to the main website (SENSE, 2008), SENSE is a research-based tool with the following uses:

- Diagnosis: Identifying the areas where students are thriving and those in which they are struggling, so colleges can target improvement efforts.

- Benchmarking: Examining college results in light of national benchmarks for effective educational practice with entering students.

- Monitoring: Documenting and improving institutional effectiveness over time and helping colleges examine the impact of interventions aimed at improving students' earliest college experiences.

- Accountability: Demonstrating institutional results and progress in supporting entering students. Institutions may choose to use SENSE data to respond to accrediting agencies' calls for institutional self-study and quality improvement strategies.

In addition to the quantitative data from the survey, qualitative data is also collected from entering students through the Starting Right initiative by means of focus groups and

interviews. Thus, the SENSE survey data helps colleges to understand what is happening, and information from the focus groups and interviews can help to explain why it is happening (SENSE, 2007).

8.4.2. Target Respondent Group and Institutional Participation

The survey targets new students in their first term from randomly selected classes. In the fall 2007 academic term, SENSE was administered at 22 pilot colleges, and in 2008, SENSE was field tested with 92 colleges in the United States (SENSE, 2008). It is anticipated that the survey will be administrated nationally in the United States in 2009 (McClenney, 2007).

8.4.3. Content and Length

The SENSE survey includes approximately 98 separate items eliciting the following information from students (SENSE, 2008):

- First impressions of the college,

- Intake processes such as admissions, registration, assessment, placement, orientation, and financial aid,

- How students spend their time as they begin college,

- How students assess their earliest relationships and interactions with instructors, advisors, and other students,

- What kinds of work they are challenged to do, and

- How the college supports their learning in the first few weeks.

In addition to the core SENSE survey, colleges have the option to add special focus items. For example, the fall 2008 field test has the following three sets of special focus items available (SENSE, 2008):

- Student Motivation, Commitment, and Support,

- Student Experiences with Student Success Courses/Programs, and

- Student Experiences with Financial Assistance.

8.4.4. Administration

SENSE is administered annually during the fourth and fifth weeks of the fall academic term. Students respond to the paper survey in-class in randomly selected courses from those most likely to enrol entering students (SENSE, 2008).

8.4.5. Psychometrics

Because SENSE is a new survey initiative, there is no specific information or research available on the psychometrics of this instrument. An examination of the survey itself, however, revealed that some sections of the SENSE (e.g. college experiences, college services, relationships, and demographics) contain questions that are either identical or very similar to the CCSSE, and therefore one would assume that the reliability and validity of the SENSE would be similar to the CCSSE at least for those survey sections.

8.4.6. Validity as a Measure for Diverse Student Groups

The SENSE is targeted specifically for all students that are early in their first semester of college. The Starting Right initiative aims to learn about the challenges students, faculty, and staff face in reaching out to and meeting the needs of an incoming and diverse student population (SENSE, 2008).

8.4.7. Utility at the Institutional Level

Colleges that participate in the SENSE program receive survey reports, including data and analysis, that they can use to improve their programs and services for entering students, and improve course completion rates and persistence beyond the first semester (McClenney, 2007; SENSE, 2008). Data from the pilot survey suggested that colleges should focus on reaching out to their students in areas such as orientation, academic advising, financial aid, and by facilitating learning communities (Sander, 2008).

8.4.8. Predictive Value for Student Success and Persistence

Since community colleges typically lose about half of their students during the first year of college, studying student attrition is key in understanding why some students succeed, and how to reach out to those who are at-risk of not completing their studies (SENSE, 2007). The CCSSE collects information about students who are in their second term of studies, or rather, only those students who had high enough engagement levels to persist beyond their first term (SENSE, 2007). The SENSE, on the other hand, aims to understand the very first college experiences of students and identify areas in which student engagement can be addressed during the first month of college, thus purportedly improving student persistence (Ashburn, 2007; Sander, 2008; SENSE, 2007).

8.5. Community College Faculty Survey of Student Engagement (CCFSSE)

8.5.1. Background and Purpose

Offered as a companion to the CCSSE, the Community College Faculty Survey of Student Engagement (CCFSSE) was created with the assistance of an advisory committee representing CCSSE colleges (McClenney, 2007) in response to demand from the community colleges (CCFSSE, 2008). The CCFSSE was piloted in 2004, and elicits information from faculty about their teaching practices, their perceptions regarding students' educational experiences, and the ways they spend their time in-class and out of class (CCFSSE, 2008).

Colleges can compare faculty expectations and perceptions of student engagement with student responses from the CCSSE, which could help colleges identify areas of strength and, more importantly, recognize areas for improvement (CCFSSE, 2004). While the CCSSE asks students to report on their perceptions and experiences throughout the academic year, the CCFSSE, in contrast, asks faculty to describe their practices in a specific course, and report on their general perceptions of student experiences in the college (CCSSE, 2005, 2006). The CCFSSE can be used to promote faculty involvement and target areas for faculty development programs (CCFSSE, 2004; CCSSE, 2005, 2006).

8.5.2. Target Respondent Group and Institutional Participation

Colleges that participate in the CCSSE are also invited to participate in the CCFSSE. All faculty members whose courses were selected for the CCSSE survey administration may participate in the CCFSSE (CCFSSE, 2004).

A total of 86 institutions participated in the 2004 pilot survey (CCFSSE, 2004). Since the pilot, institutional participation has been somewhat varied: 39 colleges participated in the 2005 survey, 65 colleges in 2006, 150 colleges in 2007, and 130 colleges in 2008 (CCFSSE, 2008).

8.5.3. Content and Length

This is a web-based survey that takes approximately 20-25 minutes to complete. The CCFSSE consists of 31 numbered questions, many of which have sub-questions. In total, the survey contains approximately 152 individual questions (CCFSSE, 2008). Contents of the survey include:

- Information specific to the selected course (e.g., class size),

- Level of student engagement in the selected course (e.g., class discussions, communications, class projects),

- Specifics of the course work (e.g., applications, level of student challenge, etc.),

- Perceptions of the college's outreach to students,

- Perceptions of the amount of time students spend on various activities (e.g., study, working, etc.),

- Perceptions of student relationships,

- How their selected course contributes to students' knowledge and development,

- Opinions on college services,

- Perceptions of what makes students at-risk of not completing their studies,

- How much time is spent on various teaching and advising activities, and

- Demographics (e.g., full-time or part-time, academic rank, experience, gender, etc.).

8.5.4.   Administration

Faculty members are invited to participate in the online survey via an e-mail invitation sent by the CCSSE staff (CCFSSE, 2008).

8.5.5.   Psychometrics

As this is a relatively new survey instrument, there is currently no information on the reliability or validity of the CCFSSE.

8.5.6.   Validity as a Measure for Diverse Student Groups

This survey is targeted specifically for faculty members who taught the courses that were randomly selected for student participation in the CCSSE.

8.5.7.   Utility at the Institutional Level

Individual institutions can use the results of the CCFSSE to engage faculty in discussions and solicit suggestions on how to address issues of concern to faculty (CCSSE, 2005, 2006). For example, preliminary results indicate that faculty members typically perceive that students are more engaged than the students themselves report (McClenney, 2007). These differing perceptions between students and faculty can be useful in discussions of how faculty can strive to improve student engagement (McClenney, 2007).

The CCFSSE also allows colleges to examine differences between their full-time and part-time faculty, and other demographic differences. For example, the Santa Fe Community College used results from the CCFSSE to address specific needs of their

part-time faculty in order to increase their level of engagement in the college, thereby helping to increase the engagement for their students (Reynolds, 2007).

8.5.8.   Predictive Value for Student Success and Persistence

The CCFSSE survey can help colleges to focus on faculty involvement and development programs (CCSSE, 2006) with the understanding that listening to faculty and improving faculty engagement could lead to better student engagement and the assumed positive outcomes of student engagement in terms of persistence and success.

9. Canadian Student Surveys

9.1. Ontario College Student Engagement Survey (OCSES)

9.1.1. Background and Purpose

The Ontario College Student Engagement Survey (OCSES) is managed by Mohawk College, and the project is overseen by Dr. Peter Dietsche, with funding provided by the Ministry of Training Colleges and Universities. The OCSES is based upon theories brought forth by Tinto (Dietsche, 2007), and is intended to help Ontario colleges improve the student learning experience so that students may be more successful (Mohawk College, 2007). The precursor to OCSES was the Pan-Canadian Study of College Students, which was also led by Dr. Peter Dietsche. The Pan-Canadian Study of College Students has two components, the Survey of Canadian College Student Characteristics and the Survey of the Student Experience in Canadian Colleges and Institutions (Mohawk College, 2007). Data from the OCSES can be used to link student characteristics and student experiences with outcomes such as grades or departure decisions (Hook, 2007).

9.1.2. Target Respondent Group and Institutional Participation

Institutional participation in the OCSES is mandatory for all Ontario colleges within the Ministry of Training, Colleges and Universities (as stated in the Multi-Year Accountability Agreements (MYAA's) for Colleges, Ministry of Training, Colleges and Universities); however, participation is voluntary for individual students (Mohawk College, 2007). Another role of the institution is to provide the researchers with the first-term overall average and enrolment status for all students in the second semester (Mohawk College, 2007). The survey is available to all students in any year of study who, at the time of the survey, are residing in Ontario, and are enrolled full-time or part-time in a postsecondary program offered at a publicly funded Ontario College of Applied Arts and Technology or Institute of Technology and Advanced Learning (Mohawk College, 2007).

9.1.3. Content and Length

The OCSES is a two-part web-based survey, with each part taking 25-30 minutes to complete (Mohawk College, 2007). The first survey contains questions related to students' background and entry characteristics, while the second survey focuses on students' perceptions and experiences during the college term (Dietsche, 2007). Part one of the OCSES contains approximately 150 questions with topic areas including:

- Academic status,

- Demographics and family background,

- Academic background,

- High school behaviour,

- Occupational uncertainty,

- Expectations of college, and

- Financial concerns (Dietsche, 2007).

Part two of the OCSES contains approximately 206 questions with topic areas including:

- Academic status,

- Demographics,

- Financial concerns,

- Perceived academic needs and difficulties,

- Faculty and peer interactions,

- Extracurricular involvement,

- Service use,

- Perceptions of faculty, and

- Perceptions of the institution (Dietsche, 2007).

When comparing the two OCSES survey instruments to their precursors, the two Pan-Canadian survey instruments, the survey questions are the same both in number and content except for some minor wording differences in the introduction and an open-ended question which differs between OCSES part one and the Pan-Canadian Survey of Canadian College Student Characteristics. The Pan-Canadian Survey differs from OCSES in that it is a national survey targeting first year students, and was only performed once in 2005, whereas OCSES has been conducted within the province of Ontario over multiple years since 2006.

9.1.4. Administration

The first part of the OCSES (student characteristics) is administered online in September of the survey year and the second part (student experiences) is administered online in November of the survey year (Dietsche, 2007). OCSES is administered via a website, which students are directed to by their college. As part of the survey process, students are asked to select their college and campus from a list and provide their e-mail address and date of birth, as well as enter their student identification number so that their

identification number can be used to link their responses with their college outcomes. Incentives are advertised and provided to encourage student participation in the survey.

Colleges are responsible for informing students about the survey and publicizing the questionnaire website (Mohawk College, 2007). This can be achieved by whichever means the institutions deem appropriate, such as handouts at orientation, advertisements in handbooks, posters, links on student portals, and information e-mails. Colleges are also responsible for adding students' first-term overall average and second semester enrolment status to the database of questionnaire results, and colleges are provided with a software tool to facilitate this process (Mohawk College, 2007).

9.1.5.   Psychometrics

No information regarding the overall reliability or validity of the OCSES was discovered during the search for this review. This could be due to the relatively recent provincial implementation of this survey project or because such information has not been made publicly available at this time. However, it has been noted (Dietsche, 1990) that research has supported the validity of the constructs underlying Tinto's theoretical model.

9.1.6.   Validity as a Measure for Diverse Student Groups

The OCSES was designed in a Canadian context and is currently used with all Ontario college students (Mohawk College, 2007).

9.1.7.   Utility at the Institutional Level

Institutions participating in the OCSES receive the following:

- Student Information Database - each institution receives a Microsoft Access database containing the information obtained from students at their college who completed each questionnaire (student characteristics and student experiences). Information to multi-campus colleges is provided individually for each campus. In addition to institution-specific results, colleges are scheduled to receive provincial-level aggregate information as it becomes available.

- Reporting/Graphing Software - a software tool is provided which was designed to allow college staff to create basic reports related to student characteristics, experiences, services use, etc. for the whole college or individual program groupings (Mohawk College, 2007).

Institutions can use the data from the OCSES to better understand their students. The OCSES provides institutions with a comprehensive profile of student characteristics which is then paired with information given by the students about their experiences over the term. Additionally, data from the OCSES can be used to provide support for at-risk students as well as benchmarks for institutional performance and to highlight areas for improvement in learning processes, faculty development, and engagement strategies (Hook, 2007).

9.1.8. Predictive Value for Student Success and Persistence

The inclusion of student success and persistence data in the form of first-term grades and enrolment status allows for the examination of the predictive value of this instrument for student success and persistence. Based on grades and enrolment status, Dr. Peter Dietsche formulated a profile of four types of students (using the overall provincial dataset): successful persisters, successful leavers, unsuccessful persisters, and unsuccessful leavers (Dietsche, 2007). Using these profiles, institutions can identify their own students who may or may not be at risk of leaving or being unsuccessful.

9.2. Freshman Integration and Tracking System (FITS, FastTrack)

9.2.1. Background and Purpose

The Freshman Integration and Tracking System (FITS) is a student success and retention system (Humber College, 2008) that was developed by Dr. Peter Dietsche at Humber College (Hook, 2007). The overall goals of FITS include: increasing student retention and success, understanding the role of the college in first-term student success, and encouraging the effective use of college resources (Humber College, 2008). In addition, the system assists college staff in identifying self-esteem, self-concept, and/or financial concerns among first-year students (ACCC, 2005).

The background for FITS is based upon Tinto's "person-environment fit" model which suggests that student success and retention are a function of the fit between the characteristics of the student (i.e., background, academic interests, and skills) and the learning environment of the institution they attend (Humber College, 2008). Previous research by Dietsche has indicated that it is possible to predict dropout and persistence by gathering information on freshman student characteristics and combining this with information on student attitudes and behaviour (such as commitment to their education and interaction with their institution) during the first half of the first semester (Dietsche, 1990). In his 1990 research paper, Dietsche examined freshman attrition among college students using two survey instruments that measured various aspects of student background characteristics, entry-level variables, interaction variables, and outcome variables. Overall, he found that "[t]hose variables which measured the nature of the student-institution interaction accounted for a greater amount of the variance in persistence/withdrawal than did the background and entry-level characteristics of the students alone" (Dietsche, 1990, p. 65). Thus, he concluded that students who drop out of their studies before completing their program do so because of a poor "fit" between their characteristics and the characteristics of their institution. The FITS survey tools purportedly help institutions in finding this "fit". Additionally, FITS is used to identify students with a high likelihood of failure or voluntary departure (Mandarino, 2006), which can be useful for institutions to focus their efforts on student retention.

FITS has also been launched as FastTrack, a product and service available from Polaris Research Associates along with the Educational Policy Institute (Educational Policy Institute, 2008; Polaris Research Associates, 2008).

9.2.2.   Target Respondent Group and Institutional Participation

As implied in its name, the Freshman Integration and Tracking System is intended for freshman or first-year community college students. According to the FastTrack webpage, this system has been used in over 25 postsecondary institutions since 1995, including data from over 50,000 first-year students (Educational Policy Institute, 2008; Polaris Research Associates, 2008).

Examples of Canadian institutions that are using the FITS/FastTrack system include, but are not necessarily limited to: Humber College, Mohawk College, and the College of the North Atlantic in Newfoundland.

9.2.3.   Content and Length

The FITS was originally paper-based but is now an online survey system (ACCC, 2005). The FITS consists of two surveys, the Partners in Education Inventory (PEI) and the Student Experience Inventory (SEI) (Dietsche, 2002).

The paper-based version of the PEI consists of 95 numbered questions, some of which have sub-questions. In total, the PEI contains approximately 135 individual questions with the option of including up to 10 extra questions. Contents of the survey include the following topics:

- Demographic profile,

- Academic background,

- Recruitment report,

- Customer service report,

- Perception of college,

- Student goals, and

- Entry attitudes profile (Dietsche, 2002).

The paper-based version of the second survey, the SEI, consists of 97 numbered questions, some of which have sub-questions. In total, the SEI consists of 136 individual questions with the option of including up to 10 extra questions. Contents of the survey include the following topics:

- Academic profile,

- Difficulties with college,

- Perceptions of college,

- Perceptions of the program,

- Co-curricular activity,

- Interaction with faculty,

- Interaction with peers, and

- Mid-term attitudes profile (Dietsche, 2002).

The FITS survey instruments appear to be precursors to the OCSES survey instruments. Specifically, a comparison of the paper-based FITS survey instruments with the OCSES survey instruments indicated that approximately 59 of the FITS PEI questions appear conceptually similar to questions on OCSES part one, and approximately 98 of the FITS SEI questions appear conceptually similar to questions on OCSES part two, although it should be noted that the specific wording and response scales differed for some of the similar questions between the survey tools. In addition, approximately 43 items appeared conceptually similar among all four survey tools (please see the Student Engagement Survey Question Comparison report for specific wording differences among the survey questions).

9.2.4.   Administration

As mentioned in the previous section, the FITS was originally paper-based but is now an online survey system (ACCC, 2005). The FITS consists of two separate surveys, with each survey taking students approximately 25-30 minutes to complete (Educational Policy Institute, 2008; Polaris Research Associates, 2008). The first survey, the PEI, is administered at college entry while the second survey, the SEI, is administered at mid-term (Dietsche, 2002; Polaris Research Associates, 2008). As well, selected high school grades and basic skills/aptitude test scores can be attached to the student results (Dietsche, 2002; Polaris Research Associates, 2008). Note that the administration of the FITS and OCSES (see section 9.1.4) appears to be very similar in nature.

9.2.5.   Psychometrics

Although no specific information regarding the overall reliability or validity of FITS/FastTrack was discovered during the search for this review, the Educational Policy Institute website refers to the validation of the system over the past 15 years (Educational Policy Institute, 2008; Polaris Research Associates, 2008).

9.2.6.   Validity as a Measure for Diverse Student Groups

The FITS was originally developed in a Canadian context in Ontario, and is targeted specifically for first-year college students.

9.2.7.   Utility at the Institutional Level

It is reported that the information captured by the FITS can be used to:

- Describe the characteristics of entering students,

- Identify individual student needs,

- Describe how students choose their college,

- Describe how students view their college upon entry,

- Provide information on student interaction with staff during the entry period (application, admissions, orientation, and registration),

- Provide information on students first-term experience,

- Identify students who are considering leaving at mid-term,

- Identify individual student support services needs (Educational Policy Institute, 2008; Polaris Research Associates, 2008).

Data collected from the first FITS survey (PEI) can be used to develop a 'Personalized Learning Plan' for each participating student which can match the appropriate college service based on students' self-identified needs (Mandarino, 2006). Also, the reports from this survey can be used by the appropriate college staff for a proactive advising system (Mandarino, 2006). Data collected from the second FITS survey (SEI) can be used to create a 'Mid-term Personalized Learning Plan' and to identify students with a high likelihood of failure or voluntary departure, and/or students who have experienced dramatic changes in their attitudes about college since registration (Mandarino, 2006). In terms of administration, within the introduction on the first page of both FITS survey instruments, it states that "your responses to this survey will then be used to create your own Personalized Learning Plan, a customized report providing information on those services that match your specific needs". The final page of the survey instruments asks students to provide their e-mail address or phone number and their consent to provide them with this personalized service.

Furthermore, according to previous research by Dietsche which used a similar system, the data collected could be used to provide college administrators with information on what is actually happening to freshmen within their college (Dietsche, 1990, 1995). Specifically, Dietsche proposes that the creation of a student-focused database (such as FITS) with information regarding students' backgrounds, entry-level characteristics, interactions with the academic and social systems of the college, and outcomes (such as success and persistence) provides the foundation for the delivery of quality education and could provide the means for reducing student attrition and failure (Dietsche, 1995).

Humber College has also used the data collected by their use of the FITS to do a comparison of first-generation and non-first generation freshman students' second semester persistence rates (Mandarino, 2006).

9.2.8.   Predictive Value for Student Success and Persistence

One of the main goals of the Freshman Integration and Tracking System is to increase student retention and success (Humber College, 2008), and one of the ways it does that is by identifying students with a high likelihood of failure or voluntary departure (Mandarino, 2006). FITS can purportedly predict with 80 per cent accuracy students who will leave their program by mid-term (ACCC, 2005; Canada Millennium Scholarship Foundation, 2008; Polaris Research Associates, 2008), although any publication of the specifics of this research claim was not discovered during this literature review.

9.3. Youth in Transition Survey (YITS)

9.3.1. Background and Purpose

The Youth in Transition Survey (YITS) is a longitudinal survey that is intended to gather information about major transitions in the lives of young people, including education, and is an initiative of Human Resources and Social Development Canada (Government of Canada, 2007). As the name of the survey implies, this is not specifically a student engagement survey, although it does contain a postsecondary engagement module. During the development of the postsecondary school engagement module, consultations were held with Dr. Sid Gilbert of the University of Guelph and Dr. Peter Dietsche of Humber College (at the time) (Statistics Canada Applied Research Branch, 2000).

There are 10 objectives of the YITS, some of which are applicable to student engagement, including:

- To better understand educational and labour market pathways and the factors influencing these pathways;

- To examine the incidence, characteristics, factors, and effects of leaving school,

- To gain a better understanding of the determinants of postsecondary entry and postsecondary retention, including education financing;

- To better understand the role of educational and labour market aspirations and expectations in investment in further education and career choice; and,

- To explore the educational and occupational pathways of various sub-groups, particularly "youth at risk" (Government of Canada, 2007; Statistics Canada, 2005; Statistics Canada Applied Research Branch, 2000).

Development of the YITS began in 1996 (Bowlby & McMullen, 2002; Statistics Canada, 2005) in order to better understand the experiences of youth in the context of an ever-changing social and economic environment (Bowlby & McMullen, 2002), as well as to help Canadian policy makers adapt to the dynamic needs of the Canadian and global labour markets (Statistics Canada Applied Research Branch, 2000).

9.3.2. Target Respondent Group and Institutional Participation

The YITS target respondent group consists of two distinct cohorts, with the first being 30,000 youth aged 15, and the second being 23,000 youth aged 18 to 20 (Bowlby & McMullen, 2002; Government of Canada, 2007; Statistics Canada, 2005; Statistics Canada Applied Research Branch, 2000; University of Toronto, 2007c).   The initial plan was to survey each cohort every two years, for a period of several years (Government of Canada, 2007; Statistics Canada Applied Research Branch, 2000).   Additionally, one parent of each 15 year-old youth took part in order to provide family background information (Government of Canada, 2007; Statistics Canada, 2005; Statistics Canada

Applied Research Branch, 2000), and the principals or head administrators of participating schools also completed a survey (Statistics Canada, 2005; Statistics Canada Applied Research Branch, 2000).

9.3.3.   Content and Length

The content of the YITS varies depending on the cohort (15 year-olds vs. 18-20 years-olds) and, being a longitudinal survey, when the cohort is being surveyed (Statistics Canada Applied Research Branch, 2000). The following refers only to the youth cohorts being surveyed, and excludes the Parent and School surveys.

The original survey for the 15 year-old cohort measures information that may influence future transitions including: school experiences, early labour-market experiences, volunteer activities, peer influence, educational and labour-market aspirations, and family background (Statistics Canada Applied Research Branch, 2000).

The survey completed by those aged 18-20 years old include areas related to: educational and occupational expectations/aspirations/plans, influences on education and career choice, participation in programs for preparation for work, postsecondary participation, educational program and specialization, first year experiences in postsecondary education, barriers to participation in postsecondary education, postsecondary financing, labour-force participation, career/job-related training, and personal income (Statistics Canada Applied Research Branch, 2000). The survey for the 17-20 year olds contains the postsecondary engagement module that consists of 24 individual survey items. These questions relate to postsecondary academics, how students spend their time, and student attitudes about their educational program.

To collect the longitudinal data, the same individuals are surveyed every two years. The survey completed by those respondents from earlier cohorts (now aged 21-29) contains items from the 17-20 year old survey, but expands on items related to: perceived value of postsecondary education, career/job-related training, and job quality indicators. It also introduces items related to life-long learning, marriage/family plans and household formation, and examines the work-family balance (Statistics Canada Applied Research Branch, 2000).

The postsecondary engagement module contained in the 17-20 year old survey asks respondents various questions including:

- Whom they lived with during their first year of postsecondary education,

- Class sizes,

- Hours spent doing school work,

- Thoughts of dropping out,

- Extra-curricular activities,

- Personal relationships, and

- Career certainty.

9.3.4. Administration

Data collection for the 15 year-old cohort is paper-based and occurs in the student's school (Statistics Canada, 2005) with subsequent surveys being done over the phone (Government of Canada, 2007). Data collection occurred for the first time in 2000, with plans to survey both cohorts every two years (Government of Canada, 2007).

9.3.5. Psychometrics

Validity and reliability testing of the YITS was done by categorizing the survey into scales and performing factor analysis, measuring Cronbach's alpha and the index of reliability, and correlation analysis (Statistics Canada, 2005). Results indicate that the Youth in Transition Survey has acceptable levels of validity and reliability (Statistics Canada, 2005). Overall, there appears to be six scales in the 15 year-old cohort survey including: high school engagement, self-efficacy, social support, self-esteem, mastery, and parenting practices (Statistics Canada, 2005).

9.3.6. Validity as a Measure for Diverse Student Groups

This survey was created in a Canadian context to gather information about the changes in the lives of young people in Canada, including the effects on and of education in young people's lives.

9.4. Other Canadian Surveys (CUSC, CEGEP, CEQ, KPI)

9.4.1. The Canadian University Survey Consortium (CUSC)

The Canadian University Survey Consortium (CUSC) is a group of Canadian universities that collaborate to gain a better understanding of the university undergraduate population, specifically with regard to student characteristics and experiences (CUSC). There are three CUSC surveys in total that are designed to target different groups of undergraduate students. Unlike the NSSE survey, the CUSC surveys focus mostly on student satisfaction rather than student engagement (Macleans Magazine, 2008; York University Office of Institutional Research and Analysis, 2006), although the CUSC surveys do contain questions related to student engagement.

CUSC began in 1994 with eight participating institutions (CUSC, 2007a). Any degree-granting institution within the Association of Universities and Colleges of Canada is able to participate in these surveys, and in 2007, a total of 35 institutions participated (CUSC). A random sample of 1,000 students is selected from each institution annually to participate, and as of 2009, CUSC will be offered only as a web-based survey (CUSC).

In general, topics within the CUSC surveys include (CUSC):

- Student demographics,

- Involvement in academic and extra-curricular activities,

- Skill growth and development,

- Student satisfaction with their institution,

- Education financing and debt, and

- Future education and employment.

The surveys target specific sub-samples of the undergraduate populations on a three-year cycle that alternates between first-year students, all undergraduate students in years 1 through 4, and graduating students who expect to graduate at the end of the current academic year, and a different questionnaire is used for each of these student groups (CUSC, 2007b). The first-year student survey explores reasons why students chose to attend university, why they selected their particular program, their reactions to the orientation process, and their perceptions of university life (University of Calgary, 2007). The undergraduate survey collects information on student plans, goals, and finances, and their reactions to the university experience, while the graduating student survey assesses student satisfaction, and student perceptions of their university experience (University of Calgary, 2007). Although CUSC was not designed specifically as a student engagement survey, it appears that some of the questions are similar in nature to items found on other

engagement surveys, such as items concerning: university orientation programs, academic advising, making practical, academic, and personal adjustments, and the use and satisfaction with the institution's facilities and services (CUSC, 2007b). All three surveys also collect demographic information.

Participating universities are divided into one of three peer groups based on the size of their student population type of degrees offered. Individual institutions can then compare their results to other institutions within their peer group as well as their own results from previous years (Carleton University office of Institutional Research and Planning, 2007; CUSC, 2007b; University of Windsor Office of Institutional Analysis, 2006; York University Office of Institutional Research and Analysis, 2006).

9.4.2. The CEGEP Experiences Questionnaire (CEQ)

Compared to the other provinces, the province of Quebec has a unique educational path for students after secondary school. Similar to community colleges, Quebec's Colleges of General and Vocational Education (or Collège d'enseignement général et professionnel, CEGEP) are postsecondary institutions that prepare students for university (a two-year CEGEP program) or to enter a technical profession (a three-year CEGEP program) after high school. Usually, at least two years of a CEGEP program are required to enter university.

The CEGEP Experiences Questionnaire (CEQ) evaluates personal and environmental factors that CEGEP students with disabilities may view as a help or hindrance to their academic progress (Fichten, Jorgensen, Havel, & Barile, 2005). Of the 31 items on the survey, 25 are applicable to all students, and six are applicable only to students with disabilities (Fichten, et al., 2005). The questions are organized into three categories: personal situation, CEGEP environment, and government and community supports and services (Fichten, Jorgensen, Havel, & Barile, 2006). Studies suggest that the CEQ has acceptable reliability and validity (Fichten, et al., 2005, 2006). Results of the survey can allow for comparison between students with and without disabilities in addition to those who were registered as having a disability and those who were not registered, but identified themselves as having a disability on the CEQ (Fichten, et al., 2005, 2006; Jorgensen, Fichten, & Havel, 2007). In addition, Fichten et al. (2006) identify several other ways in which the CEQ can be used within CEGEP institutions including:

- Evaluate obstacles for students with and without disabilities,

- Evaluate how students with disabilities are faring at the CEGEP,

- Provide information on the current situation of students with disabilities,

- Help to improve services by incorporating students' views,

- Track changes over time,

- Evaluate the impact of improvement efforts, and

- Provide evidence to facilitate decision making by administrators.

9.4.3.   Key Performance Indicators (KPI)

Another current program of research in Ontario is the Key Performance Indicators (KPI) project. Although KPI measures student satisfaction rather than student engagement per se, a brief description is included in this report because KPI is an ongoing project within the college system in Ontario. The Ministry of Training, Colleges and Universities (MTCU) introduced the KPI initiative to measure performance in Ontario's Colleges of Applied Arts and Technology beginning in 1998 (Colleges Ontario). The KPI project is a collaborative effort between the colleges and the MTCU. All colleges within Ontario are mandated by the Ontario government to report on their performance in five areas:

- Student Satisfaction,

- Graduate Satisfaction,

- Graduate Employment,

- Graduation Rate, and

- Employer Satisfaction (Colleges Ontario).

Of these five areas, graduate satisfaction, graduate employment, and employer satisfaction are currently linked to performance-based funding which is distributed to colleges based on a formula that takes into consideration the college's size and its KPI score (Northern College, 2008).

As part of the formal KPI project, community college students (excluding first-semester students and those not enrolled in a postsecondary program) complete the paper-based KPI Student Satisfaction survey in class. The distribution model for this census survey involves the packaging and labelling of blank surveys which are sent to all colleges in Ontario during the months of May, October, and January for the Summer, Fall, and Winter data collection times, respectively, with the Winter data collection being mandatory. The colleges are responsible for the distribution of surveys across selected courses as well as the collection and return of completed surveys to the external consulting company which is responsible for the data collection.

The Student KPI Satisfaction Survey asks students about their satisfaction with their program and college services (Northern College, 2008). Specifically, the survey asks students to respond to questions in the areas of learning experiences, teachers and courses, and facilities and services, using importance, usage, and satisfaction rating scales, as appropriate. The survey also has space available for colleges to include their own college-specific questions to address issues that are of particular importance to them. There are a total of 52 items on the survey, not including additional college-specific questions that may be added.

Graduate employment, graduate satisfaction and employer satisfaction data are collected through a telephone survey which is completed six months after students graduate (Northern College, 2008). The employer satisfaction survey is completed eight weeks after the graduate surveys, provided that the graduate gives their employer's contact information and permission for contact (Northern College, 2008). These post-graduation surveys collect information on the graduate's satisfaction with their college education, and their employer's satisfaction with the college's preparation of graduates in order to meet the needs of the employer (Northern College, 2008). External survey consultants administer the Graduate and Employer surveys, tabulate the data, analyse the results, and produce reports for the MTCU and the colleges.

A variety of benchmarks for these surveys are possible at the college, campus, division, and program levels (Ontario Colleges of Applied Arts & Technology, 2008). The information collected from students, graduates, and employers allows individual colleges to identify their strengths and achievements, and provides a focus for improving their programs and services (Sheridan College). Information from these surveys can also be helpful to prospective students as they choose their postsecondary program and institution (Canadore College).

The KPI surveys were developed from surveys formerly used within the college system, with adjustments and modifications made by the provincial KPI Steering Committee (Durham College, 2008). The surveys also meet conventional standards with respect to "satisfaction surveying" or "opinion polling" (Durham College, 2008).

10. Other International Student Surveys (CEQ, SCEQ, AUSSE, NSS)

10.1. Course Experience Questionnaire (CEQ)

The Course Experience Questionnaire (CEQ) was designed as a performance indicator of teaching effectiveness at the degree level in postsecondary education and was based on the work of Paul Ramsden and his colleagues (Ramsden, 1991; Wilson, Lizzo, & Ramsden, 1997). The aim of the CEQ is to determine what graduates thought of the coursework program that they had recently completed, including their attitudes towards the skills they acquired and the quality of teaching provided during their program. Thus, the CEQ asks postsecondary graduates to reflect on their student experience and respond to a series of statements about their perceptions of their undergraduate student experience.

The theory behind the CEQ is that students' *perceptions* of their course content, instruction, and assessment are key determinants of their approaches to learning and the quality of their learning outcomes (Ramsden, 1991; Wilson, et al., 1997). The CEQ focuses on aspects of the classroom teaching environment which research shows are linked to deep and surface approaches to learning (Chalmers, 2007). Thus, the CEQ survey examines students' perceptions of their learning context which can provide information that may be indicative of students' future outcomes (Higher Education Academy, 2007). Unlike most other surveys, the CEQ provides clear connections between student perceptions and student experience (Chalmers, 2007). The CEQ was first administered throughout Australia in 1993, and the survey instrument has since been substantially expanded to include more dimensions of the student experience including learning resources and learning communities (C. McInnis, Griffin, James, & Coates, 2001; University of Tasmania). With the additions to the survey, the CEQ contains a total of 50 items (C. McInnis, et al., 2001).

Graduate Careers Australia (GCA) administers the Australian Graduate Survey (AGS), which is an umbrella term for three surveys: the Graduate Destination Survey (GDS, which is a study of the activities of new graduates), the Course Experience Questionnaire (CEQ), and the Postgraduate Research Experience Questionnaire (PREQ, which investigates graduates' perceptions of their research program) (Graduate Careers Australia, 2006). The GCA also collates and analyses the data and makes the results available on their website (University of Tasmania). The AGS series of surveys are administered as paper or online surveys (Graduate Careers Australia, 2006), and all graduates of Australian universities are invited to respond to the CEQ and either the GDS or the PREQ approximately four months after completing their studies (Monash University; Universities Australia). Specifically, the scope of the CEQ is all graduates who completed an undergraduate or postgraduate coursework program at an Australian university during the previous year (e.g., the scope of the 2008 survey is graduates who completed their program in 2006) (The University of Adelaide).

The CEQ survey is designed to specifically examine the student experience from various perspectives. The CEQ contains a total of 28 items (University of Tasmania) grouped into the following scales:

- Good Teaching Scale,

- Generic Skills Scale,

- Clear Goals and Standards,

- Appropriate Assessment,

- Appropriate Workload,

- Student Support Scale,

- Learning Resources Scale,

- Learning Community Scale,

- Graduate Qualities Scale, and

- Intellectual Motivation Scale (Higher Education Academy, 2007; The University of Adelaide; Universities Australia).

Two of the above scales, the Generic Skills and Good Teaching scales, in addition to the Overall Satisfaction question, are considered key performance indicators for teaching and learning and are used as part of the National Learning and Teaching Performance Fund (Chalmers, 2007; Symons, 2008). The CEQ has moderate to high levels of consistency for all scales and is considered a valid, reliable, and stable instrument (Ramsden, 1991; Richardson, 1994; Wilson, et al., 1997). Research suggests that the newly added scales do not impact the existing CEQ scales, and that the new scales provide valid, reliable and stable estimates of student perceptions (C. McInnis, et al., 2001). Eley (2001), however, suggests that a systematic trial of alternative question forms could result in improved performance of the CEQ instrument, although this author does acknowledge that conceptual structure underlying the survey is sound.

The CEQ is useful for making informed judgements on course quality, provides comparative data for all institutions in Australia, and provides time-series data which can help to monitor change over time, allow for inter-institutional benchmarking for best practices, and provide internal feedback (Ramsden, 1991; Wilson, et al., 1997). One criticism of the CEQ is that its long lag time may act as a limiting factor for improving the quality of student learning since several years may pass before the experiences of one graduating class are analysed and improvements implemented for incoming students (Ginns, Prosser, & Barrie, 2007). This lag time exists because recent graduates are reflecting on their experiences when they were students, thus, the student experiences of these graduates occurred prior to the survey. This survey tool can be useful in providing

a more global index of perceived teaching quality that can be used in non-Australian institutions (Richardson, 1994).

10.2.   Student Course Experience Questionnaire (SCEQ)

In 1999, the University of Sydney introduced the Student Course Experience Questionnaire (SCEQ), which is administered to a random sample of currently enrolled undergraduate and postgraduate coursework students (Symons, 2004; The University of Sydney, 2008). The Institute of Teaching and Learning at the University of Sydney analyses the results from the SCEQ (Symons, 2007). The SCEQ is designed to collect quantitative and qualitative data about students' perceptions of the quality of teaching and learning at the degree level (rather than the course level) in their institutions as well as their perceptions of the student administration and support services (Ginns, et al., 2007; Symons, 2004; The University of Sydney, 2008). This survey instrument is based on items included in the CEQ, with the addition of questions related to faculty services and facilities (Symons, 2004). Approximately 31 survey items are grouped in the following scales of teaching and learning derived from the CEQ:

- Good Teaching Scale,

- Clear Goals and Standards Scale,

- Appropriate Assessment Scale,

- Appropriate Workload Scale,

- Generic Skills Scale,

- Learning Community Scale, and

- Overall Satisfaction (Ginns, 2003; Symons, 2004).

Students are also asked several open-ended questions regarding what they thought was best and in need of improvement with regard to their degree course and the university services (Symons, 2004). Both the CEQ and the SCEQ provide feedback on university and faculty initiatives so as to improve the overall student experience of teaching and learning (Symons, 2004; The University of Sydney, 2008). In addition, the open-ended questions on the SCEQ add value to the quality enhancement process and ensure the implementation of evaluation and feedback (Symons, 2006a, 2006b). Qualitative data from the open-ended questions is analysed, evaluated, and reported back to faculty, administration, and management, and dissemination of results is accomplished through university reports, presentations, meetings, and the university website (Symons, 2006b). The SCEQ can also provide more timely indicators of teaching and learning quality than the CEQ (Ginns, 2003; Ginns, et al., 2007). The SCEQ is used by the University of Sydney for performance-based funding and for national and international benchmarking (Ginns, et al., 2007).

Since the SCEQ is based on the CEQ, it is assumed to have similar psychometric properties (Ginns, et al., 2007). Reliability analyses demonstrate good psychometric properties for the SCEQ, and research has provided evidence of the validity of the instrument (Ginns, 2003; Ginns, et al., 2007). The SCEQ is a paper-based survey (Ginns, 2003) and is administered to students biennially (Symons, 2007).

10.3. The National Student Survey (NSS)

The National Student Survey has been used by all publicly-funded universities in England, Wales, and Northern Ireland, as well as in eight Scottish universities since 2005 (The Higher Education Academy). It is commissioned by the Higher Education Funding Council for England (HEFCE) and is administered by Ipsos MORI (The Higher Education Academy). The conceptual foundation of the NSS comes from the CEQ, thus it emphasizes student perceptions of their learning environment and the subsequent impact on learning outcomes (Chalmers, 2007). Unlike the CEQ, the NSS is administered to all students in their final year of undergraduate studies (Higher Education Academy, 2007).

The NSS aims to help inform the choices of prospective students, contribute to public accountability, and provide useful data to institutions to guide their enhancement and planning initiatives (Higher Education Academy, 2007). Additionally, institutions can compare their performance with other institutions while controlling for student characteristics, courses, and institutional characteristics (The Higher Education Academy, 2008). Prosser (2005) suggests that when interpreting results of the NSS, the focus should not be in terms of student *satisfaction*, but rather results should be interpreted as indicators of student *experiences* in the context in which their teaching and learning occur, which would be more productive in improving these experiences.

The main NSS questionnaire consists of 22 questions that are divided into the following sub-headings:

- Teaching on my course,

- Assessment and feedback,

- Academic support,

- Organisation and management,

- Learning resources,

- Personal development, and

- Overall satisfaction (The National Student Survey).

Space is also provided on the survey for students to write open-ended comments, and institutions can choose to include additional questions from two scales: Learning Community and Intellectual Motivation (Hanbury, 2008; The National Student Survey).

The NSS can be administered online, on paper, or over the telephone in order to optimise response rates (The Higher Education Funding Council for England). The main section of the survey takes approximately five minutes to complete and the additional questions should also take five minutes (The National Student Survey).

Results from the NSS are made publicly available online and are published in reports by the Higher Education Academy. To foster student engagement in the process of the NSS, it is recommended that improvement initiatives undertaken as a direct result of student feedback on the survey are clearly communicated to students (Williams, 2008).

Since the NSS is based on the CEQ, it has similar psychometric properties and a large body of research supporting its theory-base (Higher Education Academy, 2007). The additional optional survey scales were also found to demonstrate satisfactory reliability (Hanbury, 2008).

10.4. The Australasian Survey of Student Engagement (AUSSE)

The Australasian Survey of Student Engagement (AUSSE) (also titled the Student Engagement Questionnaire, SEQ) was developed in 2007 and is managed by the Australian Council for Educational Research (ACER) (Australian Council for Educational Research). The AUSSE is based on the NSSE and focuses on student engagement in activities linked with high-quality learning (Australian Council for Educational Research, 2008b; Chalmers, 2007). Some items are new and others are redesigned for the Australasian context from the original NSSE questionnaire (Australian Council for Educational Research, 2008b). The new items focus on attendance, individual intentions, competing work/family commitments, and work-related learning, plus open-ended questions which were also added to the instrument (Australian Council for Educational Research, 2008b). These new items were validated by a range of psychometric and conceptual analyses, and this work builds upon the extensive validation of the NSSE (Australian Council for Educational Research, 2008b).

Similar to the NSSE, the AUSSE data can be used to attract, engage, and retain students and to focus on improving the quality of student learning experiences and outcomes (Australian Council for Educational Research, 2008a). The AUSSE can also allow for cross-national comparisons between Australasia and the United States and Canada that can highlight gaps and areas in need of improvement, while giving a global perspective on higher education (Australian Council for Educational Research, 2008a). Data from the AUSSE is also considered to be sensitive to institutional diversity (Australian Council for Educational Research, 2008a).

The AUSSE uses five NSSE benchmarks of educational effectiveness as their summary scales and one additional scale developed specifically for the AUSSE (Work Integrated Learning):

- Active Learning,

- Academic Challenge,

- Student and Staff Interactions,

- Enriching Educational Experiences,

- Supportive Learning Environment, and

- Work Integrated Learning (Australian Council for Educational Research, 2008b).

The survey contains approximately 100 items, can be administered either on paper or online and is estimated to take under 15 minutes to complete (Australian Council for Educational Research, 2008b, 2008c). First-year and later-year (preferably third-year) students at participating higher education institutions are invited to respond to the AUSSE (Australian Council for Educational Research, 2008b).

Results from the first year of the AUSSE survey showed positive (although modest) correlations between satisfaction and engagement scales, thus providing some evidence that engaged students are more satisfied with their study (Australian Council for Educational Research, 2008c). The strongest relationship was between satisfaction and the Supportive Learning Environment scale (Australian Council for Educational Research, 2008c). Thus, more engaged learners tend to be more satisfied, and by enhancing student engagement, institutions can also enhance satisfaction (Australian Council for Educational Research, 2008c).

The Australian Council for Educational Research has also implemented the Staff Student Engagement Survey (SSES) which is based on the FSSE and mirrors the AUSSE (Australian Council for Educational Research). This instrument targets university staff of institutions that participated in the AUSSE, is an online survey, and takes under 15 minutes to complete (Australian Council for Educational Research). The SSES focuses on teacher perceptions of student engagement, the importance placed on various areas of learning and development, the nature and frequency of staff-student interactions, and how teachers organize their time (Australian Council for Educational Research).

11.   Survey Question Comparison

As a compliment to the above literature review, a question-by-question comparison of several surveys was compiled and is available as a stand-alone report (see *Student Engagement Survey Question Comparison*).   Specific surveys were chosen for comparison based on several criteria, including: (1) applicability to Ontario colleges, (2) applicability to the community college context, (3) relevance to student engagement, and (4) availability of the survey instrument. Thus, this comparison contains survey questions from nine student surveys:

1. OCSES Part One,

2. OCSES Part Two,

3. FITS (PEI),

4. FITS (SEI),

5. CCSSE,

6. SENSE,

7. CSEQ,

8. KPI, and

9. The postsecondary school engagement module and demographics section of the YITS.

Although very relevant for our current purposes, the CCSEQ was not available for public viewing, therefore the CSEQ was used in this comparison because there is a significant overlap between these two instruments. Additionally, as the full YITS survey is not focused on student engagement, only the engagement module and the demographics section of this survey were used in this exercise, which are the most relevant parts of the survey for current purposes. Also of note, the paper-based versions of the FITS PEI and SEI surveys were used in this analysis, thus if there are any differences between the paper and online versions, they would not be reflected here.

The following table (Table 12-1) outlines the number of questions in each survey specific to different topic sections. In general, all surveys were compared to one another based on the order and topic sections of the OCSES Part One. The full text of each question is presented in the stand-alone report, and where questions are conceptually similar across surveys, they are presented in the same row.

Table 12-1
Summary of the Student Engagement Survey Question Comparison

	Approximate Number of Survey Questions Within Each Topic Section*								
	OCSES Part One	OCSES Part Two	FITS (PEI)	FITS (SEI)	CCSSE	SENSE	CSEQ	KPI	YITS**
College and Respondent Identity and Academic Status	13	7	10	9	12	10	4	5	-
Demographic and Family Background	19	16	10	2	11	8	7	3	27
Academic Background and Preparation	9	7	1	0	1	1	0	1	-
Secondary School (Academics)	12	0	5	0	0	3	0	0	1
Sources of Information	0	0	11	0	0	0	0	0	-
Orientation	0	0	4	0	1	14	0	0	-
Post Secondary (Academics)	0	52	2	19	59	37	98	19	13
Career Preparation, Selection and Certainty	10	5	8	7	3	1	3	3	4
Expectations of College	50	31	35	21	0	0	0	0	-
Financing College	13	4	1	2	8	7	2	0	2
Attitudes	24	56	47	55	2	2	3	2	2
Conversations	0	0	0	0	0	0	20	0	1
Facilities/Services and Extracurricular Involvement	0	28	1	21	13	11	29	20	-
TOTAL SURVEY QUESTIONS	**150**	**206**	**135**	**136**	**110**	**94**	**166**	**53**	**50**

*Note that the approximate number of survey questions reflects the most recent version of the survey publicly available at the time of this report.
**Note that only the Engagement Module and Demographics Sections of the YITS were included.

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