CSA
CollegeStudent
ALLIANCE

Roadmap to Excellence

Understanding Quality Through Learning and Continual Improvement

Sean Woodhead

October 2009

College Student Alliance (CSA)
301-372 Richmond Street West
Toronto, Ontario, M5V 1X6

Roadmap to Excellence:
Understanding Quality Through Learning and Continual Improvement

Sean Woodhead
Research and Policy Analyst

October 2009

Letter from the President

When you visit any one of Ontario's twenty-four public colleges and ITALs, the people you meet will express a common belief: quality education must be a met expectation for students, parents, faculty, administration, government and taxpayers. These stakeholders must be assured that quality programs are being delivered by quality institutions.

While Ontario has an existing quality assurance system that is effective, with many elements conforming to international best practices, there is still room for improvement. A system that looks at quality in learning-centred terms with a clear outlining of quality control from quality assurance will produce stronger quality management.

The College Student Alliance would like to see Ontario's postsecondary education system and its colleges move beyond the existing metric of quality and adopt an even more rigorous Quality Management System. A new system aimed at defining, measuring, and improving quality can better support the strategic position of Ontario's postsecondary institutions and their need to attract new learners.

Furthermore, the College Student Alliance feels that all students who walk into a postsecondary institution deserve a quality education, so when they leave they are prepared to be successful in the workplace as well as in life itself. This paper speaks to the desire and needs of college students who wish not only to learn a vocational skill, but also to become strong, independent learners.

Regards,

Justin Fox
President

Letter from the Director of Advocacy

Consumers look for the highest quality in the goods and services they purchase, and students are no different. As consumers and clients of postsecondary education, students want assurances that they will be receiving the highest quality education possible. As learners, this is equally important.

The College Student Alliance (CSA) has always been interested improving quality within the college system, but with this paper, we are taking a more focused and in-depth look at what defines a quality education. We are satisfied that defining quality education in terms of learning and continual improvement will provide a substantive contribution to the discourse on the quality of the education provided by Ontario's twenty-four colleges.

Since the inception of the college system in Ontario, quality assurance has existed in some capacity. Given the changes and growth experienced in the system over the last decade, it is time to move forward with a more advanced system of quality management and data collection. A thorough quality management system (QMS) along with increased data collection are needed to establish accountability and instill further confidence in the system.

Given the current fiscal position of the province, it is important that all Ontarians have confidence in the quality of the education and training being delivered by our postsecondary educational institutions. *Roadmap to Excellence: Understanding Learning and Continual Improvement* should prove to further the understanding of why colleges exist, why quality matters and how to enhance the system.

Regards,

Tyler Charlebois
Director of Advocacy

Executive Summary

The establishment and maintenance of a quality management system (QMS)—consisting of quality assurance (QA), quality control (QC) and quality improvement (QI)—is vital to the performance and growth of virtually any large service. The value of quality management was reiterated in Bob Rae's review of Ontario post-secondary education (PSE) entitled *Ontario: A Leader in Learning*. Rae writes that 'defining, measuring and improving quality' is critical to the success of the Ontario PSE system. This paper examines how colleges, including the Ontario Colleges of Applied Arts & Technology and Institutes of Technology and Advanced Learning, can move forward with faith and certainty that these three objectives for the goal of achieving quality can be fulfilled.

In the 1960s, Ontario showed its support for the creation of colleges as a new level of PSE education. History has shown that college purpose is a derivative of government mandate, albeit a mandate that is frequently subject to review. Any measurement of college quality requires familiarity with college mandate and how well colleges perform in fulfilling this mandate.

The original mandate given to colleges was to provide career training to all eligible persons, becoming the PSE option of far greater accessibility and inclusiveness.[1] College programs were to be much more accessible than their university counterparts. Their program design would respond to industry needs while maintaining a sufficient academic facet for the learning experience.

In the 1980s, Vision 2000 was struck to articulate what the college system should look like in the year 2000. The body concluded that there was some detachment between original mandate and college practice. Vision 2000 further clarified the purpose of Ontario colleges. Vision 2000 determined that colleges ought to operate with greater responsiveness to the changing and emerging needs of employers, industries, communities and government. It was also determined that colleges required further accessibility, flexibility and sensitivity in order to fulfill mandate.

Even further clarity was statutorily provided for Ontario colleges, and it is through legislation and binding policy directives[2] that government mandate re-establishes college purpose. The Ontario Colleges of Applied Arts and Technology Act (2002) states that the objects of the college are to provide career-oriented training and education, to be sensitive to employers' needs and to support the development of the communities in which they reside. The Act lays out current college mandate.

Central to fulfilling the purpose of Ontario colleges, then, is a contemporary understanding of learning. Understanding learning is critical as an absence of achieved program-designed learning outcomes would imply an absence of learning. Learning is the acquisition of a knowledge or skill. For well over a decade, the learning-centred approach to education has become a well respected contribution to PSE discourse. Expectations formed from traditional learning focused predominantly on the acquisition of knowledge obtained from course material. Conversely, a learning-centred approach will identify the need for students to be engaged on a

---

[1] Enrollment standards for college programs required a secondary school diploma, amongst other requirements for certain programs.
[2] Most pertinent to this discussion is the Minister's Binding Policy Directive on *Framework for Programs of Instruction* and particularly the *Credentials Framework.*

deep level, expecting outcomes from learning that cover not just course material, but also various skills and abilities.

This paper advocates adoption of an innovative learning-centred approach by Ontario institutions. In this approach, focusing on what is being learned (how it is being learned, and how can this existing learning be proven) takes precedence over what is being taught. While curriculum is still considered a valuable component of program design, the most important element of the program is learner development.

The reason for utilising a learning-centred approach to education, as already provided by some colleges in Ontario, is to support students in becoming deep learners. Deep learners take from a program the skills necessary to be productive in work and personal life while also intrinsically valuing learning itself. A graduate who possesses deep, independent, lifelong learning capabilities is foundational to human progress and for Ontario's economic, social, political and cultural prosperity. This paper provides examples of tools used in learning-centred education including academic-business partnerships, individual learner profiles, continuous feedback throughout the course and instructor self-reflection. Instructors and institutions must empathise with the learner to enhance their learning experience. Research has shown that student-centred education produces greater achievement of learning outcomes rather than an orientation around curriculum and teaching.

All programs in colleges or universities are designed to allow students to show that they have achieved a series of learning outcomes as they exit. The existing program standards for Ontario colleges already provide many of the learning outcomes identified by this paper as being critical to a student's success beyond college life. What is less than clear is to what degree college programs provide strong knowledge and skills in theory; and hands-on experience with the natural, social and cultural realms of thought. Furthermore, it is unclear what value the program of instruction may possess in the social and cultural context of the outside world. General education is designed to provide many of these requisites. This paper asserts that more general education ought to be provided to college students.

What is absolutely needed in the Ontario college system then is a QMS that adequately defines, measures and improves quality in learning-centred terms—otherwise referred to as *learning quality*. Quality, or learning quality, implies the existence of a standard or grade of excellence of learning. Achieving quality requires the achievement of predetermined learning outcomes. However, what number or percentage of students achieving all learning outcomes marks a college as an institution of quality? This paper establishes the fact that criteria must be defined for a process of continual improvement to achieve the highest grade of excellence in learning.

Therefore, to define quality, policy makers must clearly illustrate the criteria to be used. The criteria ought to revolve around the learning-centred approach with an ultimate goal of providing perfect completion of learning outcomes, while quality is determined by the progression towards this ultimate goal for college programs and institutions. A quality institution is one that moves towards a greater and more successful facilitation of received learning outcomes as demonstrated by the student.

The paper outlines five quality frameworks: (1) design-oriented, (2) customer-oriented, (3) goal-oriented, (4) kaizen-oriented and (5) multi-dimensionally-oriented (MDO). Each quality framework holds a basic assumption about how to bring about

excellence. The design-oriented framework assumes that excellence is in conforming to design specifications; the customer-oriented framework, that the customer or recipient of a program or service must be satisfied; the goal-oriented framework, that achieving identified goals are necessary in growth; the kaizen-oriented framework, that incremental change is safe and stable; and the MDO framework, that there are valuable pursuits of quality in many identifiable factors. This paper supports the use of a kaizen-oriented quality framework on the grounds that continual, incremental improvements at the institution level are very important in supporting the dynamic nature of each college. However, comparability between institutions is lost with such an approach. Since parents and students often seek ways to compare the education process—or results—from each institution, it may prove useful for the government to explore the development of learning outcomes comparisons.

Along with these five quality frameworks there exist four approaches to quality measurement that this paper discusses. The four approaches value different perspectives on what ought to be measured: minimal standards, rankings/indicators, learning impacts and continual improvement. Some may suggest that any approach must also carry a value-added expectation to learning. While learning-centred approach focuses on what is being learned (through measurable achievement of learning outcomes and how students are learning), a value-added approach seeks to understand how much is being learned.

A value-added approach in its most basic form requires knowledge of what knowledge and skills a student possesses upon entry into the system. To assess how much is being learned, the student must be re-assessed upon exit. While the probability of developing a data set with significant correlates to properly measure value-added to the learner is daunting, a basic assumption can be made. The assumption is that program standards have been established to expect students to emulate skills and abilities conducive to employability in their field of study while also being capable of contributing to society at large.

That being said, value-added will undoubtedly be provided to the students by either enhancing their skills or, if they already possessed all learning outcomes upon entry, formally validating and accrediting their prior abilities through a college credential. To ensure students do not already possess all learning outcomes and simply enter a program to seek a validation of prior learning, prior learning assessment and recognition (PLAR) programs must be used to accommodate such students.

A conceptual framework that captures student movement through the system from entry to exit has been provided by Ross Finnie and Alex Usher. In the Finnie and Usher conceptual framework, a depiction of the student experience is provided as 'a story of inputs and outputs'. This framework views the student as moving along a continuum from the start of their experience ('beginning characteristics'), through the educational experience and the resources the institution uses to add to the academic learning and student development ('learning inputs'), to the skills with which a student leaves the system ('learning outcomes')[3] and the greater subsequent results from having achieved higher learning ('end outcomes').

Understanding the roles of the three components of the QMS is very important for students, colleges and government. QA, the component that focuses on processes to

---

[3] Finnie & Usher actually refer to this as "learning outputs", but with the same meaning.

prevent errors and inferior quality, already exists and continues to grow stronger. Particularly with the existence of program standards, the Credentials Framework, college self-audits and the external audits provided by the Ontario College Quality Assurance Service (OCQAS), QA is shown as a high priority in the college system. OCQAS provides meaningful and valuable review of QA for learning quality. By reviewing institutions' own processes, it is easier to move all colleges towards a more consistent understanding and measurement of quality, and specifically learning quality. OCQAS must be able to exercise more independent review of its QA. With a strengthened ability to independently review QA by expanding Management Board membership to more than just senior academic officers, even more sound reviews can be provided. However, since the assumption of existing quality is inherent in quality assurance, QC is needed for instances that QA fails.

QC, while it does exist in some ways, does not appear to be part of the system's vocabulary. Very little mention or writing of QC in the college system can be found. QC focuses on recognising what the system wishes to deliver and it detects products that deviate from this standard. QC must not just detect problems that arise from student intake up to and beyond graduate production, but it must also provide corrections. QC does exist in the form of the Credentials Validation Service (CVS) in ensuring proposed programs meet established criteria before being provided by colleges. Some QC can be argued as being provided by the Minister of Training, Colleges and Universities as the Minister has the ability to take over responsibility of operations in instances where public interest has been contravened. This oversight mechanism is necessary however an apolitical QC mechanism should also exist that reviews achievement of learning outcomes. QI, the third component of a QMS, focuses on reducing wasteful spending and making the entire system more effective and efficient. Specifically for QC and QI, a reliable data set is needed to understand possible solutions.

A data set should be constructed by the government to better understand the education process and to assist continual improvement through quality management. The use of the Ontario Education Number (OEN) beyond secondary school and into PSE is critical for better understanding the beginning characteristics of the student and their movement through PSE. This will allow government the ability to better target funding towards significant beginning characteristics-learning outcomes, inputs-learning outcomes and learning outcomes-end outcome correlates. More research should be performed into understanding where significant correlates exist.

Quality should espouse to achieve: (1) high quality teaching and learning, (2) the ability to complete a program of study in a reasonable amount of time, (3) program delivery and its outputs will be responsive to the needs of the Ontario labour market, and (4) responsiveness to community needs. These are reflective of the mandate established through the Act and supported by college history. Measuring quality should focus around these areas in a learning-centred approach.

This entire process, which comprises a quality management system (QMS), must also fulfill the political requirement of government to remain accountable. In doing so, key performance indicators must be met. These indicators ought to be used with some system-wide indicators chosen by government and remaining indicators chosen by each individual college tailored to fit their state of growth and community particularities.

Acknowledgements

Table of Contents

Introduction

The colleges of Ontario[1] have significantly grown in physical size, economic influence and participation in the higher education of citizens since their inception in 1965. The growth and maturity of the colleges require the creation of both indicators and metrics for better conceptualising and communicating their improvement and overall performance. This is perhaps no better highlighted than by the provocative and controversial paper released by the Ontario Ombudsman and its criticisms of what the Ombudsman feels to be a lack of quality management and government control. Conversely, this paper argues that effective quality management for Ontario colleges comes from an arms-length, but within hands-reach, quality management system (QMS) reflective of government mandate over college purpose and the fulfillment of such purpose.

There is no time more important than the present for a thorough and sound QMS—consisting of quality assurance (QA), quality control (QC) and quality improvement (QI) for colleges. As this paper will demonstrate, the performance of QA and QC ought to be recognised as two completely separate, yet necessary, functions. In the interest of preserving gained autonomy that colleges now enjoy, neither one of these two functions should be performed directly by government. The presence of the Ontario College Quality Assurance Service (OCQAS) is a vital support to the presence and practice of QA in Ontario colleges. This paper will further clarify the roles that QC and QI ought to play in the quality of colleges.

Without a clear distinction between these three components of a QMS, people must rely on their own subjective understanding of what constitutes quality. There are far too many existing indicators that could be indicators of quality, with different sets of indicators being valuable to different fundamental theories of how to arrive at quality. While being sensitive to particularities that exist within each community, a set of reliable indicators must be identified to guide college administrators and other PSE professionals in assessing where quality exists, measuring to which degree quality exists and evaluating the means by which quality has been assured.

A QMS is vital for all those who have a relationship with the college system. Parents and students must understand what constitutes a quality program or institution in order to know which college may provide the best experience tailored to their particular needs and desires. Colleges must understand quality in order to better benchmark their own performance and growth while also benchmarking their progress in relation to other colleges. Perhaps most importantly, government must understand quality in order to better understand the relationships between allocation of resources and return on these investments.

This paper will argue that central to understanding quality is the idea of fulfilling college purpose through government mandate. The mandate is essentially to provide vocational education and training to students, and the core aspect of this purpose is an ability to facilitate learning. Learning is the ability to advance one's knowledge and/or skill through means of study or practice. For Ontario colleges, learning requires the student to leave the college experience with more knowledge and skills than when the student enters the system. It can usually be inferred that learning occurs through the achievement of learning outcomes, as a student will undoubtedly enter a program not possessing all the knowledge and skills the

---

[1] Including Colleges of Applied Arts & Technology and Institutes of Technology and Advanced Learning.

program is designed to provide. If it were the contrary, the student would not enter the program and would instead look for employment.

Thus, the creation of a QMS for Ontario colleges will require the ability to apply learning-centred practices in each program. The use of a learning-centred approach will satisfy college expectations for quality. However, students and parents require some means of comparability to make choices about which school to attend. The use of a framework that measures the student's knowledge and skills upon entry and exit, such as a value-added approach, may be useful for providing an ability to compare. The challenge for policy makers then will be in the analysis of which learning inputs have a significant correlation with learning outcomes and end outcomes.

This paper shall assert that with learning as central to the college experience, a quality institution should be defined as (1) an institution where learning outcomes are being achieved or (2) an institution where measurable learning is taking place. The differentiation here is that the prior simply requires the institution to measure whether the student has indeed achieved learning outcomes; the latter requires the ability to measure the student upon entry and exit and evaluate the progress of student learning between these two points. For the latter approach to even be useful, which follows a theory of value-added, understanding what relationships exist between inputs and outcomes will be required in order to make change possible. If colleges use prior learning assessment and recognition (PLAR), then the inference can be maintained that students who enter a program do not have the learning outcomes expected of them to gain valuable employment or else the student would have received appropriate recognition at program entry, or soon thereafter.

This paper will provide the reader with a line of logic that originates from a question of why colleges even exist and what brought the college concept to fruition. From there, an analysis of its core purpose will be performed and will set up the explanation for what is most important to achieving quality for colleges: the fulfillment of its purpose. From there, the practical discussion around quality management will take hold and end with a description of a thorough QMS for Ontario colleges.

Using a sound and whole QMS will require the assistance of colleges and stakeholders with the continued support by government for greater college autonomy and self-regulation. Today there are more mouths to feed, so to speak, with a limited amount of money in government coffers to support existing appetites. Government faces the serious reality that greater burdens on the public system are to come, largely thanks to a retiring baby boomer generation. Ensuring that a strong QMS exists that is learning-centred will better fulfill college purpose and further ensure that the expectations of the post-secondary education (PSE) system are achieved.

1.   Purpose of Ontario Colleges

1.1   Ontario Colleges: A New Level of Postsecondary Education

Before the 1960s, colleges were largely established by municipalities, various non-profit entities and other groups with a vested interest in training people with skills for the workforce.[2] It was upon entering the 1960s that, as Maureen Callahan points out, Ontario public policy experienced a 'primary debate' in higher learning.

This debate was between two contrasting approaches to intellectual and economic development within the province: establishing more universities or differentiating Ontario PSE with the development of publicly-funded colleges.[3] With a growing percentage of the Ontario population looking for formal avenues of learning and with a government needing the economic edge from fulfilling such, colleges became a new level of postsecondary education that sought to provide an experience and service to society much different than their university counterparts.

William Davis, then Minister of Education,[4] and the Ontario government would have gone bankrupt if they had tried to meet the newly growing demands for education by building more universities. Davis announced the government's decision in 1965 as to what the reformed PSE system would look like: a binary PSE system with universities and colleges. The government mandate delivered to colleges sought to overcome economic and social hurdles, both current and pending.

According to Davis, these colleges would guarantee courses that were above and outside of the secondary school level; programs accessible to all secondary school graduates; and courses and programs available to all adults and youth who have fallen through the cracks of the secondary school system. Davis said these colleges were designed:

> For full-time and for part-time students, in day and in evening courses and planned to meet the relevant needs of all adults within a community, at all socio-economic levels, of all kinds of interests and aptitudes, and at all stages of educational achievement.[5]

Focusing on catering to a far greater number of citizens wishing to enter the system, colleges from their very birth received a natural and cultural inclination to be savvy and innovative. Not enjoying the history and tradition that both bless and hinder the quality of universities, colleges were truly a new level of PSE.

Deviating from the traditional university model that provided a one-size-must-fit-all pedagogical approach in molding future academics, colleges would have to find the

---

[2] Michael Skolnik, "Community Colleges and Further Education in Canada" in *Global Development of Community Colleges, Technical Colleges and Further Education Programs* eds. P.A. Elsner, G.R. Boggs and J.T. Irwin (Washington DC: Community College Press), document not numbered.

[3] Maureen Callahan, "Chapter 4: Goals for Post-Secondary Education" in *Achieving Government, Community and Institutional Goals through the Measurement of Performance: Accountability and Performance Indicators in Ontario Colleges and Universities* Ph.D. Thesis Submission (Toronto: OISE), document not numbered.

[4] In 1965, the Minister of Education had jurisdiction over PSE

[5] David Cameron and Diana Royce, "History of Postsecondary Education in Ontario," in Smith Commission *Report Excellence, Accessibility, Responsibility: Report of the Advisory Panel on Future Directions for Postsecondary Education*, (Toronto: Government of Ontario), document not numbered.

means to provide sensitive pedagogy committed to the ends of bolstering Ontario manpower quality. According to Skolnik and echoed by Dennison and Gallagher, colleges were created also due to projected increases in those seeking PSE and a need to create 'intermediate-level institutions'.[6]

On the contrary, the only thing intermediate about this new level of PSE was that there was a difference in enrollment standards between universities and colleges. These new institutions were not created to be inferior to universities or to be feeder schools, similar to the United States community college model. These new institutions provided necessary vocational and technical education to a large number of students who would not otherwise have accessed the PSE system; the colleges emphasised learning outcomes geared towards skills and abilities rather than a traditional, curriculum-based approach.

Creating colleges as feeder schools would have instantaneously created institutions of inferiority through a linear education pathway from high school to college to university. Providing real, employable skills and training was not incumbent upon universities in their program design. Creating a college system that addressed employer expectations and employable skills, rather than creating colleges as feeder schools, supported the needs of the labour market.

Therefore, the creation of the public college system in 1965 illustrated that government chose to articulate a mandate that was system-wide, advertently tying PSE to the labour market. In doing so, government responded to the need to create an institution to validate learning through a formal environment, as well as the need for virtually all types of students to be given an ability to succeed based on their own terms.

Ontario economic and social policies guided the evolution of college purpose throughout the 1960s and 1970s.[7] By 1968, twenty-two colleges were in operation. These colleges were subject to centralised authority, whereby a council of regents approved programs and board appointments.[8] In operation and practice, these colleges would be in stark contrast to the universities: an instrument of government mandate and policy rather than autonomous and serving one's own pursuit of truth.

1.2   Establishing a Core Purpose Through Renewed Government Mandate

Growth in Ontario PSE surpassed expert forecasts in the 1960s and 1970s. In the 1970s, Canada also developed student assistance, transfer payments, national training programs and federally-funded research programs. The aim of Canada at this juncture in PSE history was to be as involved as possible in education in order to, as best as possible, ensure the economic prosperity and cultural integrity of the entire country. Of course, this had to be done by federal government without the real or perceived exercise of political influence over institutions or provincial jurisdictional authority. Providing provinces with the ability to have jurisdictional authority over PSE was firmly supported by constitutional law under the separation of powers.[9]

---

[6] Skolnik.
[7] Ibid.
[8] Ibid.
[9] Section 91 & Section 92 of the Constitution Act.

4

Likewise, Ontario was committed to supporting the continued development of its colleges because it did expand access to education. Unfortunately, the PSE system as a whole was still somewhat piecemeal, with highly visible seams between secondary school, college and university. Throughout the 1970s, arms-length bodies were created to counsel government on PSE policy decisions and to consult with institutional leaders. For the college system, the arms-length body was the Council of Regents.

In the Council of Regents 1981 task force report, three components of the college mandate were outlined:

1) To service local and regional community needs and particularly to meet marketplace needs by providing qualified manpower capable of utilising new technologies;
2) To provide PSE to all non-university-bound students capable of profiting from a college experience;
3) To continually review college mandate through the Council and developing a method to evaluate college policies and funding.[10]

Through the 1980s, the Ontario government wanted the Council of Regents to conduct a complete review of the college system. Vision 2000 was a review requested by the Minister of Colleges and Universities[11] and was conducted by the Council of Regents. This review was intended to answer the question, 'What should Ontario's college system look like in the year 2000—and how do we get there from here?' The review would also come to address the two solitary entities of the Ontario PSE system: colleges and universities. With many concerns present at the college level, Dennison claims that:

One issue which arose during the Vision 2000 debate, and which was targeted for further attention, was the need for greater opportunities for advanced training for those graduates of the college system who wished to upgrade their skills and credentials'.[12]

Vision 2000 consisted of five study teams who undertook research and public consultations on virtually all aspects of the college system and experience. Also, Francophone consultation, environmental scan research, focus groups, public presentations and personal interviews were also conducted. Thirty-nine background papers were produced, which guided the Vision 2000 steering committee in their final report: *Quality and Opportunity: A Review of the Mandate of Ontario Colleges*.

Quality and Opportunity concluded in 1990 that Ontario colleges were originally mandated 'to provide career education for high school graduates, to provide training opportunities for adult workers, and to service a diversity of communities'.[13] While this does not mean that universities were incapable of fulfilling a purpose of providing training opportunities to citizens, surely it means that the value of its provision did not suffice to meet Ontario demands, nor would it be fair to expect

---

[10] Cameron and Royce.
[11] Now the Minister of Training, Colleges and Universities
[12] John Dennison, "Challenge and Opportunity," (Vancouver: UBC Press), 54.
[13] Charles Pascal et al, "Vision 2000: A Review of the Mandate of Ontario's Colleges" (Toronto: Ministry of Colleges and Universities), 8.

such. Colleges were an affordable means to securing ends of quality and quantity of labour.

The final report made a total of forty recommendations. These recommendations addressed:

- a lack of system-wide standards and planning;
- a lack of general education and focus on development of personal skills;
- barriers to accessibility;
- callousness to adult part-time learners;
- a lack of prior learning assessment recognition;
- unresponsiveness to changing labour market demands;
- attrition;
- visible seams (and in many cases a complete rift) between colleges and secondary schools and universities; and,
- perceived conflicts amongst quality, access, funding and labour-management relations.[14]

Vision 2000 concluded that a renewed mandate for the college system was necessary. This mandate would capture principles of accessibility, flexibility and sensitivity to student needs. Ontario responded positively to three specific recommendations of the call for mandate renewal:

1) A College Standards and Accreditation Council (CSAC) was established to oversee the development of system-wide college program standards;[15]

2) A Prior Learning Assessment Advisor and Coordinating Group was established for a three-year period to guide implementation of a system of prior learning assessment in the colleges, after which time each college would assume full responsibility for offering prior learning assessment services; and,

3) Government established a task force to review advanced training to determine the province's advanced training needs, investigating greater credit transfer between colleges and universities and whether the expansion of training opportunities would require a special type of education.[16]

One of the greatest contributions from Vision 2000 to the quality of the college system was the development of program standards. Providing greater consistency to expected learning outcomes, this addition to the learning experience of students subsequently produced an ability to better understand what constitutes a college credential.

Following the Vision 2000 report, the colleges continued to experience marked growth in enrollment as well as in the continued development of new programs designed to meet the emerging needs of Ontario's economy. With this growth in the college system came a need to more clearly define and update the college mandate.

---

[14] Cameron and Royce.
[15] Notable is that the CSAC was also mandated to create and implement an accreditation model for public colleges, but was indefinitely shelved by the Mike Harris government.
[16] Cameron and Royce.

The Colleges of Applied Arts and Technology Act (2002) clearly outlined the government-delivered mandate for colleges. The purpose of the college system, according to the Act, is:

> 2.(2) The objects of the colleges are to offer a comprehensive program of career-oriented, post-secondary education and training to assist individuals in finding and keeping employment, to meet the needs of employers and the changing work environment and to support the economic and social development of their local and diverse communities.
>
> 2.(3) In carrying out its objects, a college may undertake a range of education-related and training-related activities, including but not limited to,
> | | |
> |---|---|
> | (a) | entering into partnerships with business, industry and other educational institutions; |
> | (b) | offering its courses in the French language where the college is authorised to do so by regulation; |
> | (c) | adult vocational education and training; |
> | (d) | basic skills and literacy training; |
> | (e) | apprenticeship in-school training; and |
> | (f) | applied research.[17] |

Desiring to maintain a college system that would focus largely on career-oriented learning but would also vest more authority in College Boards of Governors, the government mandated the development of a self-regulatory system to ensure both the consistency and quality of college program delivery. A joint college-government Task Force developed a provincial Credentials Framework to articulate the level of learning associated with each credential and established an arms-length regulatory body, the Credentials Validation Service (CVS) to approve new programs and changes to current programs consistent with the framework. The government also mandated greater coherence in QA processes. After extensive research, the Program Quality Assurance Process Audit (PQAPA) was developed and implemented to provide institution level QA audit and review over college QA processes and self-audits.[18] These two services form the Ontario College Quality Assurance Service (OCQAS).[19]

From the Act and onward, greater accessibility and flexibility have been provided. The greater access to the system was granted through Ontario's *Student Access Guarantee* of which guarantees every willing and qualified student can enroll in a PSE program. Greater flexibility has been granted to colleges through enhanced autonomy, self-determination and self-regulation.

Vision 2000 sparked significant positive change in the way that colleges operate, specifically in the way these institutions view *learning*. Learning is the acquisition of knowledge or skill; the post-Vision 2000 college system experienced a paradigm shift that championed ensuring that learning takes place within the institution. A strengthened focus on learning is the means to achieve a greater sensitivity to student needs.

---

[17] Government of Ontario, *Ontario Colleges of Applied Arts and Technology Act*, 2002.

[18] Ontario College Quality Assurance Service (OCQAS) *Program Quality Assurance Process Audit Question and Answer*, as accessed by http://www.ocqas.org/pqapa-qanda-en.pdf.

[19] The OCQAS, which consists of the CVS and PQAPA, will be discussed in further detail in Section III of this paper.

1.3 Learning-Centred Approach to Education

There are both traditional and more contemporary ways to look at the education process. A traditional approach to education is highly teacher-centred: a focus on the teacher as being central to the education process with consideration given strictly to what is being taught.

The more contemporary "learning-centred approach" focuses on what is being learned. The learning-centred approach holds the assumption that all learning is personal and that new information is integrated into students' existing knowledge base. This approach has been represented through the Learning Revolution, a now twenty-year- old movement towards learning-centred education, with Canadian colleges striving to reassess and more deeply understand various perspectives on teaching–learning relationships.[20] Ontario colleges already emulate many of the characteristics embodied within this revolution.

This movement was rooted in a desire to understand the mechanical aspects of learning and addressing learning as a personal and active exercise—derived from the *constructivist* school of thought.[21] Constructivism, a prevalent theory in college program design and culture, establishes that learners will connect new knowledge or experience with existing knowledge or experience. In doing so, learners continually revise their perspective of the environment that surrounds them.[22] Notwithstanding the behaviourist school of thought that focuses on physical behaviours and students as passive objects,[23] many of the learning theories place students as very active agents in the process. Making sure that colleges support active learners by focusing on how students learn and how to motivate learning is critical for the competitive advantage of colleges in the PSE system.[24]

Terry O'Banion, a leading scholar on the learning-centred approach, describes four key characteristics of a college that is learning-centred ('the learning college'):

- The learning college engages learners as full partners in the learning process, assuming primary responsibility for their own choices;
- The learning college creates and offers as many options for learning as possible;
- The learning college assists learners to form and participate in collaborative learning activities; and,
- The learning college defines the roles of learning facilitators by the needs of the learners.[25]

It is quite clear that O'Banion is stating that college students are active agents in their own learning; best equipped to have access to a wide array of media to receive information and that the educational experience engages students through various

---

[20] Kristine Fenning, Cohort Based Learning: Application to Learning Organizations and Student Academic Success, *College Quarterly* 7(1): Winter 2004.

[21] For an interesting review of teaching and learning theory, read http://www.collegequarterly.ca/2005-vol08-num02-spring/frank.html

[22] Fenning.

[23] Behaviourism has been the dominant theory in instructor lecturing styles throughout the twentieth century

[24] For a great example of a learning-centred framework visit
http://outcomes.bcstats.gov.bc.ca/Libraries/DACSO_Papers/issue_Learning_pdf.sflb.ashx

[25] Christine Frank, Teaching and Learning Theory: Who Needs It?, *College Quarterly* 8(2): Spring 2005.

methods.[26]   What does O'Banion mean by learner 'needs' as it relates to learning facilitation?

Student, or learner, needs hold the achievement of learning outcomes as central to in-program success. Learner success after the program is the receipt of a formal credential that adequately communicates to the outside world what the graduate is expected to have learned and acquired in skills and knowledge. Likewise, success after the program is also the development of deep learning and an ability to become a driver of one's own learning.

Therefore, to address learner needs the program must provide a learning environment supportive of, and conducive to, success. Ascertaining the gap between existing student knowledge, skills and abilities and what is expected from learning outcomes can give the instructor an understanding of what type of progress is required to achieve the desired result: accomplished *learning outcomes*. Learning outcomes are the skills, ability and obtained knowledge that a student retains, marked upon completion of a course or program. The use of learning outcomes is very useful in ensuring students exit a course or program in adherence to expectations.

Yet, it is an oversimplification to suggest that we understand learner needs as just the achievement of learning outcomes. What tools exist for instructors to assist students in achieving learning outcomes? Carolin Rekar Munro provides a framework for sound practices in teaching and learning which include needs analysis through academic-business partnerships and learner profiles; effective feedback; and engaging in personal reflection.[27]   Munro's argument is that learning-centred education must be in tune with labour market expectations; instructors must have access to complete learner biographies that account for values, needs, expectations and prior performance; continuous feedback must be incorporated into program design; and instructors must reflect on who they are as teachers.[28]

Academic-business partnerships already exist in the college system predominantly through program advisory committees at the program level and through the Board of Governors at the institutional level. The development of learner profiles is a very interesting proposition. Granting instructors the ability to better understand their students on an intimate level would warrant further investigation. While privacy issues surface immediately as a concern, if instructors were formally trained to better understand teaching and learning theories and how to pedagogically apply them this issue may be more easily overlooked.

Munro suggests that instructors need to have intimate knowledge of the learner to best facilitate learning. Of course, the self-identified needs of each learner can be additionally understood through effective feedback, whereby each class concludes with what Munro calls a 'final check-in'. In doing so, individual or classroom-wide issues and concerns can be addressed and resolved during the program and not upon its conclusion, as with year-end evaluations. However, final check-ins after each class would take away from limited contact time. Check-ins may more reasonably be applied once a week.

---

[26] Methods of student engagement can include student-instructor engagement and peer-peer contact through the forming of social networks around similar intellectual interests.
[27] Carolin Rekar Munro, "Best Practices" in Teaching and Learning: Challenging Current Paradigms and Redefining their Role in Education, *College Quarterly* 8(3): Summer 2005.
[28] Ibid.

Addressing how students learn also requires a distinction between *surface* and *deep* learners. The surface learners 'are primarily motivated to meet minimum task requirements (e.g. to get through the course and pass the exam)', without interest in the meaning of learned information.[29] The deep learners pursue the 'meaning and understanding for its own sake, and deep learners appear to be intrinsically motivated'[30].

Christopher Knapper provides an explanation of some very important research in terms of how learning-centred approaches to education produce deeper learning:

> Kember [has shown] links between the orientation of individual teachers and a change in their students towards deeper learning approaches. Kember developed a scale to measure teaching values and beliefs, and distinguished, following Barr and Tagg (1995), between 'subject-orientation' at one end of a continuum, and 'student- or learning-orientation' at the other. Teachers holding more learning-centred orientations, and who encourage more active learning and interaction with students, appear to promote deeper learning than teachers who hold more subject-centred values (Kember & Gow, 1994).[31]

All of this seeks to establish the quality of the student-instructor contact, and particularly an instructor's ability to empathise with students and student experiences, as an important factor in learning quality. Instructors who enable their students to better achieve learning, based on educated and evidence-based decisions by instructors about students, are indeed instructors who are more likely to produce students who achieve predetermined learning outcomes.

While this paper has explained the value of an institution being learning-centred and supporting student-centric instruction methods, what are the necessary learning outcomes for Ontario colleges? This question requires the paper to go back to the Act for clarification. The Act stipulates two other purposes that complement career-oriented training and education. Colleges are to offer programs that meet employer expectations and the changing work environment, and they are to support economic and social development of communities. It follows that all learning outcomes must fall within at least one of these three areas.

Ontario currently has standards for college programs of instruction, first introduced by the government in 1993. Currently, program standards are produced with the help of 'employers, professional associations, universities, secondary schools, program graduates working in the field, students, faculty and college administrators'.[32] The established standards are also under frequent review. These program standards are broken down into: a) vocational standards; b) essential employability skills; and, c) general education requirements.[33] These learning outcomes correspond to the three components of the Act: career-oriented training, employer expectations and community support.

---

[29] Christopher Knapper, "Changing Teaching Practice: Strategies and Barriers," (Kingston: Queens University), 2.
[30] Ibid.
[31] Ibid, 4.
[32] Government of Ontario, *What Does A Program Standard Contain?* accessed by http://www.edu.gov.on.ca/eng/general/college/progstan/contain.html? on August 7, 2009.
[33] Government of Ontario, *College Diploma and Certificate Program Standards*, accessed by http://www.edu.gov.on.ca/eng/general/college/progstan/intro.html on September 3, 2009.

The Ontario college program standards establish system-wide vocational standards for each program of instruction. However, each college determines the means by which to facilitate the outlined standards and the need for additional criteria to address particular needs of the community. The essential employability skills that Ontario uses (Table 1) are as follows:

Skill Category	Defining Skills	Learning Outcomes
Communication	- Reading - Writing - Speaking - Listening - Presenting - Visual literacy	- Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. - Respond to written, spoken, or visual messages in a manner that ensures effective communication.
Numeracy	- Understanding and applying mathematical concepts and reasoning - Analysing and using numerical data - Conceptualising	Execute mathematical operations accurately.
Critical Thinking & Problem Solving	- Analysing - Synthesising - Evaluating - Decision making - Creative and innovative thinking	- Apply a systematic approach to solve problems - Use a variety of thinking skills to anticipate and solve problems
Information Management	- Gathering and managing information - Selecting and using appropriate tools and technology for a task or a project - Computer literacy - Internet skills	- Locate, select, organise, and document information using appropriate technology and information systems. - Analyse, evaluate, and apply relevant information from a variety of sources.
Interpersonal	- Team work - Relationship management - Conflict resolution - Leadership - Networking	- Show respect for the diverse opinions, values, belief systems, and contributions of others. - Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.
Personal	- Managing self - Managing change and being flexible and adaptable - Engaging in reflective practices - Demonstrating personal responsibility	- Manage the use of time and other resources to complete projects - Take responsibility for one's own actions, decisions and consequences

[Table 1 – Ministry of Training, Colleges and Universities, "Essential Employability Skills", 2005]

General education courses are courses that 'contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience' and of the society in which they live and work. Specific themes for general education

courses to cover include arts in society, civic life, social and cultural understanding, personal understanding, and science and technology.[34]

The inclusion of these three layers of learning outcomes illustrates that Ontario has done an exceptional job of developing and maintaining program standards for the college system. While some colleges have moved towards learning-centred approaches, what is vitally important is that Ontario commit to ensuring all colleges focus on a mission of providing learning-centred education and incorporate this mission into program practice.

Ontario might consider placing an even greater emphasis on the general education of students. The learning of theory and hands-on experience with the natural, social and cultural realms of thought are critical—connecting college diplomas and degrees to exposure to business, liberal arts, political and scientific information.

Likewise, Ontario may also consider creating standards around student engagement practices that facilitate equal contact time in classroom, community, and international community—albeit international exposure can only realistically occur vis à vis the Internet. Also important is the translation of knowledge learned and skills developed into what economic, social and cultural value these may possess. Preparing students in this way can further ensure the recognition of their civic responsibilities and an understanding of how they can contribute to the community at large.

Therefore, the value of formal credentials can be maintained and even strengthened with a system that:

- Keeps academic programming technologically relevant and up-to-date
- Matches teaching and learning styles after assessing which styles exist in the classroom
- Remains accessible and flexible to respond to varying student identities
- Supports and expands student affairs on campuses to successfully create a social community
- Realises that if students enter a program, they have a desire to learn
- Engages each student by any means necessary
- Creates more out-of-class assignments, on-line classrooms, year-round enrollment, more evening and weekend classes, et cetera
- Sets a target stipulating that each graduate will possess the learning outcomes as outlined in this section.

If one pinnacle goal can be isolated amongst all others in the need for an understanding of learning and an application of this understanding, it is that learning in college ought to guide students to become the drivers of their own learning. Creating people who develop a love for learning is what the education system is best poised to do, above and beyond the fulfillment of mandate from the Act. Institutions and government must continue to appreciate the diversity of students and the ways in which students incorporate curricula into their own knowledge and experiences.

Developing the means to place students at the centre of the educational process is imperative for a system that prides itself on naturally being innovative while

---

[34] Minister's Binding Policy Directive 3.0 Framework for Programs of Instruction, Appendix C: General Education Requirement.

purposefully being strategic. College instructors must understand learners as unique, understanding the strengths and needed improvements of each learner, and incorporating the use of feedback into daily or weekly routines. A learning-centred approach produces a greater likelihood of deep learning, and deep learning promotes independent, self-motivated learning.

The college must not lose sight of its mandate in providing career-oriented learning as the basis of its curriculum. This paper has attempted to establish that career-oriented learning and training encompass a multitude of necessary knowledge sets, skills and abilities, with some that are career-specific and others that are more general. In order to better meet the needs of employers, students must possess a wide range of employable skills that allow them to be durable employees capable of adapting to rapid change.

Likewise, students must be in touch with the outside world in order to be of greater service to their communities. By further ensuring that these students have the tools to learn outside of the classroom and college, then government can better ensure a more educated and prosperous citizenry fully engaged in its responsibilities to personal, professional and civic life.

It is the achievement of these learning outcomes which are included in the college program standards and the use of these means of instruction that best conceptualise the definition of quality by this paper.

2.   Understanding Quality

2.1   Quality and the Rae Review

As Vision 2000 was arguably one of the most significant documents for the Ontario college system in the 1990s, Bob Rae's review has received much of the same acclaim for this decade. A significant player in framing discourse for enhancing the Ontario PSE system, Rae provides some key input into the topic of quality. In Rae's 2005 Ontario PSE review, entitled *Ontario: A Leader in Learning*, Rae outlines goals for reform which include 'great education' and 'a secure future for higher education'.[35] As Rae makes note, these goals for reform are necessary for Ontario to be a leader in learning.[36]

The insight and recommendations provided by Rae throughout the paper focus primarily on 'defining, measuring and improving quality',[37] for the 'quality of the student experience'[38] as central to the quality of institutions. Rae illustrates through his 'Framework for Reform' that great education needs a clear understanding of the mission and purpose of PSE, along with the pursuit of 'quality and innovation' for a 'rewarding and successful' student experience.[39]

The previous section of this paper clearly identified college mandate as providing career-oriented education and training to its students, which is supported by the Act. Likewise, Ontario being a leader in learning would require the complete incorporation of a learning-centred approach to education into pedagogy[40] and program design. What is further required is the use of a QMS[41] that can, as Rae called for, define, measure and improve the quality of learning in college programs.

2.2   Defining Quality & Quality Management

Quality infers the existence of a standard or grade of excellence. Every day, people use already constructed ideas of quality to assess and evaluate the world around them. People will use the term 'quality' as a way to conceptualise the good, the satisfying, the efficient, and/or the effective. In matters of personal preference, using one's own constructed understanding of what constitutes quality is fine. Yet in matters of public policy, the need for a reliable QMS is imperative. Defining quality is the first—and perhaps most—critical step in making this achievement a possibility.

The standard or grade of excellence to be established for colleges ought to be a fulfillment of its mandate. For a college program of instruction to be of quality, it must provide career-oriented education and training.[42] This education must be compatible with needs of employers and industry standards for employment.

---

[35] Honourable Bob Rae, "Ontario: A Leader in Learning," (Toronto: Government of Ontario), 9
[36] Ibid, 29.
[37] Ibid, 2.
[38] Ibid, 17.
[39] Ibid, 28.
[40] However, it is important to note that learning-centred approach is not pedagogical in nature. Pedagogical methods can be derived from the learning-centred approach.
[41] Quality Management System
[42] Although imperative, this is only one half of college quality.

Likewise, the education must permit students the ability to understand their role in nature, society and culture.

There are both external and internal motivations for colleges to support the defining of quality education. External motivations to construct and agree upon such a definition comes from an upcoming shortage of skilled workers, the market demand for higher education credentials amongst the workforce, an increasing strain on government coffers and the relief that can arise through multiplier effects from a more educated citizenry.

Internally, colleges are interested in defining quality to better market themselves to prospective students and their parents, to justify the continuation of public support in their endeavours, benchmarking institutional progress along its own development continuum and benchmarking institutional progress in comparison to other institutions. Perhaps most importantly, colleges will inevitably or already do compete against other providers of PSE. Understanding and improving one's quality gives a competitive advantage to those who do not understand quality and/or have static or decreasing quality performance.

Ontario's economic competitiveness and our social development will partly rest upon the ability of the province and/or each college to define and appropriately measure learning quality. Since all persons are inherently subject to their own notions and presuppositions of what constitutes quality, then the development of some objective definition is a noble, yet necessary, pursuit.

A complete QMS should maintain faith of the learning quality of programs and institutions. Students, along with taxpayers, spend a considerable amount of money on Ontario PSE. While assuring quality is an effective way for institutions to understand their performance, understanding quality ought to inform students and taxpayers about the value of their investments—do the investors get a return on their financial contribution?. Quality management of colleges will seek to address that, at the very least, there is a return on the investment.

Quality management is a concept consisting of *QA*, *QC* and *QI*. Particularly with QA and QC, the terms are often mistakenly used interchangeably. QA refers to the planned and systematic actions undertaken in order to be confident that the program, and particularly the learning experience, is of quality and adheres to requirements. This component of the QMS will seek to further ensure that the learning outcomes are being achieved and that institutions are continually improving. QA of the highest integrity uses both internal and external audits.

As QA is process-driven in an attempt to prevent error, QC is driven by the need to detect errors in instances that QA fails. This component of quality management will use QA process, policy and procedure to determine if it is followed properly and if the deliverable product (i.e. a graduate with learning outcomes) has actually been produced; if correction is required, it will also tie the means (through QA) to end outcomes desired by the quality management process.

What this all establishes is that quality does not come from inspection and conformity to standards, but from a process of QI. This process of improvement gradually brings all colleges together in a unitary understanding of quality and the best means to achieve excellence in learning. Within the kaizen-oriented quality framework, QI seeks to bring all layers of the institution together in a common

pursuit of continual improvement. All people within the institution are capable of recommending change and when errors are discovered, no one attempts to place blame on any one party.

2.3   Quality Theory

E.G. Bogue establishes three core theories of quality management: elitism, quality within a mission and value-added (Table 5).[43] It is important to understand these three theories for what a QMS would produce:

Quality Theory	Definition
Elitism	Belief that each institution is to be graded based on standardised ranking system and placed accordingly from first place to last place
Quality within a Mission	Belief that if a Board of Governors fulfills its mission, it has achieved quality
Value-Added	Belief that if graduates exit the institution with more and better characteristics and skills than they entered with, the institution has achieved quality

[Table 5 – Bogue, Three Theories of Quality Manamgement in *Quality Assurance in Higher Education: The Evolution for Systems and Design Ideals*, 8]

Important questions must be answered about whether or not measuring quality will be in the form of a ranking system as found in elitism, or whether quality is tied to a mission as part of kaizen-oriented quality (explained further), or whether or not a value-added approach is used to determine quality (Finnie–Usher model, also explained further).

The elitist theory of quality management is by far the most widely used manner by which people look at quality within a sector or field. As previously mentioned, PSE ranking systems such as those found in *Maclean's* and the *Globe and Mail* have gained notoriety. It is human nature to want to know who or what is the best, and who or what is the worst. Using elitism provides us with a way to assess our environment and make sound decisions by ranking performance. In a very "black-and-white" manner, elitism seeks to list in order of winners to losers, or best to worst.

There are the other two theories as well: quality within a mission and value-added. Quality within a mission is often fixated on having the core mission focused on continual QI; however, it can utilise any other understanding of quality. Value-added theory, on the other hand, simply theorises that if a program or service creates greater value for the person or entity that goes through the system, then this means the system is of quality.

There are different means by which one can define quality. The lists below are a summary of some of those definitions (Table 2) along with their greatest benefits and drawbacks (Table 3):

---

[43] E.G. Bogue, QA in higher education: The evolution for systems and design ideals, *New Directions for Institutional Research*, 7.

Quality Framework	Defining Quality
Design-Oriented	Meets design specifications
Customer-Oriented	Satisfies the customer's expectations and self-identified standards
Goal-Oriented	Achieves individually- or institutionally-established goals
Kaizen-Oriented	Makes continual and incremental improvements
Multi-Dimensionally-Oriented	Satisfies established standards that focus on many types and/or factors in quality management

[Table 2 - Based on the definitions of quality encountered by Bogue (1988), pg 8]

There are benefits and drawbacks associated with each notion of quality. Coupled with the many choices the researcher or professional has when determining which quality framework should be used, there is little consensus across the sector. As illustrated in the chart above, this paper makes mention of five well-known quality frameworks: (1) design-oriented, (2) customer-oriented, (3) goal-oriented, (4) kaizen-oriented and (5) multi-dimensionally-oriented (MDO).

One may assume learning-centred education would equate to consumer-oriented quality. Rae focused a great deal on placing students as central to education and this paper has highlighted the value of providing a student-centric, learning-centred experience. However, does this mean that as long as students feel happy and satisfied, colleges are of quality? After all, if student satisfaction remains high, the students must feel they are receiving good value for their investment. Would not a student-centric perspective then define quality as student satisfaction? Student satisfaction can be easily affected by other factors outside of the education system and, while important, cannot be the be-all-and-end-all to defining quality.

Other frameworks, such as design-oriented quality and goal-oriented quality are both important in the development and maintenance of the Ontario college system. If the Ontario government designs a plan to which colleges should adhere and then they subsequently conform to this plan, those colleges could be said to be of quality. Yet, what if the design is inherently flawed or imperfect in some way? Goal-oriented quality is important as it takes into account the need for institutional self-determination; valuing the right of institutions to chart their own course of growth. There are problems with using a quality framework exclusively focused on establishment and achievement of pre-established goals.

If colleges set less challenging goals in a strategic plan, then an easier accomplishment of quality can be achieved—despite the fact that an ability to perform at a higher level was possible. Would this institution still be of good quality, especially if its progress paled in comparison to that of the whole system? These examples illustrate the complexity in having various understandings of quality without much consensus.

A kaizen-oriented quality framework appears to be one of the more supported methods of defining quality. Following the principle of kaizen, defining and measuring quality can be sensitive to institution-defined goals and objectives. The distinction between kaizen-oriented and goal-oriented quality is that the prior is focused on defining goals and objectives in the context of continual improvement and eliminating wasteful use of resources while the latter is held to no philosophical predisposition. Also, kaizen is a continual, daily process and philosophy empowering each participant in the system as being capable of affecting positive change. Likewise, and as seen in other sectors such as the Japanese automotive sector,

kaizen-oriented quality unifies all layers of the organisation in the service of shared goals and ideals.

As the golden mean is often found somewhere in the middle amongst a multitude of choices, this would imply that MDO quality is the most ideal. In theory, it supports the values of each framework of quality as being legitimate while not excluding any belief as being incorrect or inappropriate. In practice, respecting the beliefs on quality of all those involved in the system may better support what quality means to each player in the field.

Quality Framework	Greatest Benefit	Greatest Drawback
Design-Oriented	Can clearly determine whether the product/service is up to specifications	Design and specifications can be flawed or less effective
Customer-Oriented	Easy to establish customer satisfaction; if customer is satisfied than value (and quality) is implied	Customer expectations can be influenced by popular culture, emotional reactions, biases
Goal-Oriented	Individual or institution can determine the reasonable goals and objectives capable of achievement	Like design-oriented quality, the created mission and goals can be flawed or designed to underperform
Kaizen-Oriented	Excellent relationships developed between all layers of organisation, all striving towards same ideals; best understands context for own improvement	Continual improvement does not always equate to achieving excellence; people and organisations can improvement likely to eventually plateau; lack of institution comparability
Multi-Dimensionally-Oriented	Attempting to find a 'golden mean' that harmonises all approaches to quality	Confusing and contradicting philosophies on quality can hinder a sound definition of quality and what is of most important value

[Table 3 – Greatest benefits and drawbacks to various quality frameworks]

With these quality frameworks used for defining quality, putting the definition into practice requires the use of an approach. The distinction then between quality *framework* and *approach* is that the former is the core belief or assumption as to how one can conceptualise quality, while the latter is the means used to put the conceptualisation of quality to practice.

Finnie and Usher identify four approaches to quality (Table 4). These four approaches include:

Approach	Agenda	Methodology	Unit of Analysis
Minimum Standards	Accountability to government	Mostly qualitative	Usually departments
Rankings/Indicators	Accountability to government & transparency	Quantitative	Usually institutions
Learning Impacts	Internal accountability	Quantitative	Institutions
Continual Improvement	Accountability to government & internal accountability	Qualitative	Usually institutions

[Table 4 – Finnie and Usher, Four Approaches to Quality in *Measuring the Quality of Post-Secondary Education: Concepts, Current Practices and a Strategic Plan* April 2006, 6]

These four approaches all have different value to the system being measured, and each approach has basic assumptions rooted in a quality framework. The *minimum standards approach* is often termed as a program review process. It is beneficial because it often allows for the inclusion of information and feedback from various sources. However, self-audits are obviously not objective in the sense that institutions assess and/or assure their own quality.[44] This approach is best used for those following a goal-oriented framework.

The *rankings/indicators approach* has gained a considerable amount of popularity in recent years, particularly due to the *Maclean's* ranking of universities in Canada. Focused on using indicators of quality, the ranking system ranks institutions primarily based on resources accessible to the school and the type of students entering the institution.[45] This approach is flawed by assuming that institutions with greater resources produce better systemic outputs and learning outcomes, which in practice cannot be guaranteed. *Maclean's* is an interesting example as it seeks to be a driver of increasing customer-oriented quality.

Examples of customer-oriented quality and its ties to the rankings/indicators approach for colleges can be found in Ontario's use of Key Performance Indicators (KPIs). KPIs focus on graduate rates and time spent achieving credential, along with the satisfaction of students, graduates and employers. While KPIs do show data reflecting the satisfaction of students, graduates and employers, it does not prove the extent to which learning outcomes have been achieved.[46] Particularly with reference to employer satisfaction rates being in the 90%-plus range, the employers will undoubtedly be satisfied with the college graduates they hire. However, employers should typically be satisfied with any employee who has passed through the vetting process of shortlists and interviews, regardless of what PSE credentials and employable skills the employee may possess. Therefore and with particular reference to graduate and employer satisfaction, a high KPI score proves very little about quality. Nevertheless, the use of KPIs are an important accountability process to ensure the public has a sufficient degree of satisfaction regarding the college education service.

An approach more friendly to this paper's emphasis on learning as being central to achieving college mandate, the *learning impacts approach* analyses the learning process within a program or institution and assesses whether learning is taking place. The National Survey of Student Engagement (NSSE) and its community college counterpart, the Community College Survey of Student Engagement (CSSE), are widely used in the United States and see some involvement in Canada.[47] These two student engagement surveys measure student engagement, an integral part of the learning process. However, for such an approach to be useful for the Ontario college system, the results of the survey would have to be publicly accessible, and neither NSSE nor CSSE currently have transparent results.[48]

---

[44] Ross Finnie and Alex Usher, "Measuring the Quality of Post-secondary Education: Concepts, Current Practices and a Strategic Plan," (Ottawa: Canadian Policy Research Networks Inc.), 7-8.
[45] Ibid, 8.
[46] Graduation rates would better illustrate completion of learning outcomes if students transferring out of the institution would not be considered a 'drop-out'
[47] Ibid, 13.
[48] However, Humber ITAL participated in the 2009 CCSE. Humber ITAL is the only PSE institution in Ontario to have participated in CCSE. For information on participating institutions, visit http://www.ccsse.org/survey/profiles.cfm?sortby=state

Lastly, the *continual improvement approach* is one that seeks to produce continual and incremental change in the institution. While it takes some of the self-auditing practices from the minimum standards approach, this approach adds to it an incentive for improvement. One of the ways this approach has been used is for performance benchmarking, whereby the institution uses a more desirable institution to be emulated as its benchmark for growth and improvement.[49] An example of this approach is ISO 9000.

The ISO 9000 is maintained by the International Organization for Standardization. ISO 9000 focuses on a customer's requirements of quality and regulatory requirements in an attempt to maximise customer satisfaction and always focus on continual improvement. Quality is not an end or product to be achieved. Rather, quality is the process of being committed to continual improvement. While comparability, and thus transparency, between colleges is arguably lost through this method, such comparisons are no longer necessary since quality is defined by the process of continual improvement and not through comparable results.

Interestingly, applying a continual improvement approach to the Ontario college system is extremely valuable. Using ISO 9000, or the principles found within ISO 9000, guarantees colleges the ability to exercise autonomy over their directions while allowing them to be sensitive to the particular needs of their communities. Under such an approach, each college is responsible for its own audit process through self-reporting. A very similar approach currently exists in the college system under the OCQAS.

This paper suggests that it ought to be a kaizen-oriented approach for continual improvement of programs and institutions and the use of QA, QC and QI are three important elements to maintain in a QMS. Continual improvement supports innovation and frequent change, not being held to the confines of tradition and an accepted practice. In continual improvement there exists no 'best practices', only 'sound inventions of practice until new and better ideas emerge.'

On the contrary, it is in our nature to want to use a ranking system to conceptualise quality. Parents and students will seek to compare institutions in an effort to make the best decision about where a student should attend college. This researcher suspects that, inappropriately, KPIs are used as a comparability system by some parents and students. The creation of a value-added based framework will seek to provide assurances to students and parents that their choices are right ones; that other students have had value-added to their skill sets. While this is not part of this paper's definition of quality, investigating the worth of such a system is useful.

2.3 'Conceptual Framework' of Value-Added to Student

Tradition often overlooked the value of enhancing the student experience to include individual development beyond learning course material. More contemporary pedagogical approaches have found that embracing learning quality means teaching with a learning-centred method of delivery, resulting in 'better short-term retention, improved understanding, and more expert approaches to learning and beliefs about knowledge and discipline'.[50]

---

[49] Finnie and Usher, 15.
[50] Higher Education Quality Council of Ontario, Second Annual Review, (Toronto: HEQCO), 77.

In the Finnie and Usher research report, a 'conceptual framework' is constructed, depicting the student experience 'as a story of inputs and outputs'.[51]

Phase of Student Experience	Description
Beginning Characteristics (Entry)	The skills, abilities and knowledge of incoming students which will play a role in both their PSE experience and the outcomes they receive
Learning Inputs (Continuation)	All the resources the institution and system invest into the student experience
Learning Outcomes (Graduation)	The skill set product upon graduation that is a result of the combination of foundational/beginning characteristics coupled with learning inputs
Final Outcomes (Post-Graduation)	The vast array of ends produced by the education system benefitting graduate, economy and society at large

[Table 6 – Finnie and Usher, "Conceptual Framework"]

In the Finnie-Usher conceptual framework, the student enters the system with a set of skills, abilities and knowledge. Based on prior successes in learning (both formal and experiential), the amount and level of beginning characteristics will vary from student to student. Examples of beginning characteristics would include things such as general cognitive function, problem solving ability, effective communication and attention span.

After students enroll in a college program and throughout the duration of their studies, they will receive the advantages—or disadvantages—associated with the amount of resources the college invests into the institution. These resources, also known as learning inputs, would include things such as student–faculty ratios, infrastructure, access to academic materials and various technologies. As long as each input could be shown to have a positive effect on students, it would then follow that the more inputs into the Finnie–Usher model, the greater effect on students' learning outcomes, and thus better end outcomes.

End outcomes are the final products from the learning outcomes. Desired outcomes are often assumed to be from positive learning outcomes, while undesired outcomes are assumed to result from negative learning outcomes.

However, there are many challenges associated with using this model, and these challenges are ones not overlooked by Finnie and Usher. Firstly, there is an enormous amount of possible indicators of quality within any level of the framework. Secondly, it is difficult to determine whether or not the development of student characteristics from system entry to exit is significantly correlated with inputs, or if

---

[51] Finnie & Usher, iii.

student characteristic growth is a result of nature. In other words, would the growth of their characteristics have continued had the students never entered the system?

Some safe assumptions may be made regarding this matter. Conditional upon the practice of a PLAR, students should be assumed not to possess all the necessary knowledge, skills and abilities if they enter into a college program—otherwise, they would go directly to employment. Secondly, students will surely acquire some learning in a program of study. This emphasizes the importance of PLAR and that students must have existing learning outcomes assessed if they feel they already possess most or all of the expected learning outcomes from a course or program.

That being said, the worth of a value-added system would definitely ensure a better measurement of the quantity of learning taking place. In an era of limited government spending, the enormous cost of developing and maintaining a data set, researching the relationships between all four phases of the conceptual framework, and the risk associated with not finding any significant correlations all beg the question whether such risk is even worth the resources needed.

The question must be asked as to whether or not quantity of learning is important to measure. Up to now, this paper has established the need for a learning-centred approach. Is there a way to remain consistent that learning outcomes are what is important, while also satisfying the parents and students' needs for elitism through comparability?

One option government may wish to look at is creating a comparability system based on learning outcomes achievement. If an institution is to satisfy the government's access agenda, than are learning outcomes achievement at risk? The only way to properly ensure that this does not occur is with more informed instructors that also have an ability to identify at-risk students early, through the use of learning profiles and effective feedback as mentioned in the previous section.

3.   Practicing Quality

3.1   Ontario's Quality Model

In 2005, Ontario officially established the expectation that colleges of this province must provide a quality experience to students. This experience must then also produce valuable and needed ends for these students. The Higher Education Quality Council of Ontario (HEQCO) lists three components that can be derived from this expectation: (1) high quality teaching and learning, (2) the ability to complete a program of study in a reasonable amount of time, and (3) program delivery and its outputs responsive to the needs of the Ontario labour market. In keeping with this message of this paper another component should be added: (4) responsiveness to community needs.[52] These four components all are applicable to the Ontario college experience. In adapting a continual improvement approach to quality, these four components ought to be the goals around a learning-centred approach to quality. Likewise, both the QA and QC of program and institutional quality must take into account these four expectations.

High quality teaching and learning is the cornerstone of the education experience. As already discussed, high quality learning would be indicated by the high success rate of students completing learning outcomes. A high quality instructor or teacher in the college context would be one who acts as a critical support to high quality learning, but who would also employ ways to foster an environment that encourages students to engage each other and to find the internal motivation to engage with course material. In support of kaizen, a high quality instructor would also continue to provide new ways of enhancing the learning experience in an environment supportive of these recommendations.

The ability to complete a program of study in a reasonable amount of time is important for both the operations of the college, the return on investment to the individual, and the return on investment for society at large. Colleges are best to ensure expedient completion of courses in order to keep class sizes predictable and consistent. Return on investments also depends on quick course completion— theoretically, the faster the students graduate, the faster they will enter the workforce.

Ensuring responsive program delivery to match well with labour market demands has been a continuing theme in college mandate, from 1965 through Vision 2000 and the Act up to present day. When colleges were created, they were created with an expectation that they would enjoy an even greater relationship with local communities and industry through Program Advisory Committees.

Understanding that all PSE institutions exist within a context greater than just education is imperative in recognising the colleges' potential and their responsibility. Outside of labour market demands, colleges ought to also satisfy social, cultural and political demands from within the community. As Vision 2000 articulated, Ontario colleges ought to provide more than just vocational skills and training. Ontario colleges must also prepare their students to have knowledge, skills and a deep understanding that is transferable into personal, social and civic duties.[53]

---

[52] HEQCO, 58.
[53] Section I.

3.2 Existing QA and QC of Ontario Colleges

Recall in the previous section the distinction between QA and QC as the prevention of error and the detection of error, respectively. OCQAS[54] is the combination of two QA services for Ontario colleges: the Credentials Validation Service (CVS) and the Program Quality Assurance Process Audit (PQAPA), with the former being operational in 2005[55] and the latter in 2007.[56] The development of the OCQAS is in line with the Minister of Training, Colleges and Universities' Binding Policy Directive 'Framework for Programs of Instruction'.

The mandate of the CVS is a front-ended QC mechanism that is to assist in providing and maintaining the consistency and integrity of college programs while protecting 'the interests of students and employers who require a reasonable guarantee of consistency and quality'.[57] The Credentials Framework that guides the CVS through its mandate is an example of front-ended QA. Essentially a set of standards are used to determine whether a proposed program meets accepted criteria. It is incumbent upon QC to use a blueprint of what the absence of error looks like—the accepted standards. This is the only way that QC can accept a product as being the desired deliverable.

The PQAPA, on the other hand, is a back-ended review of QA processes at each individual college and is by no means a QC process. This audit process focuses on assessing the QA processes of each college.[58] The purpose of the PQAPA, then, is to ensure college QA processes conform to sound practices, that PQAPA audits be subject to external review and that there be an appeal process against the results of any audit.[59] The PQAPA seeks to establish institution-level QA. Both of these two mechanisms, the CVS and the PQAPA, were provided under the greater autonomy given to colleges by the Act.

Continual improvement is the approach that guides the current QA environment. The OCQAS supports college self-determination and facilitates what they establish as 'international best practices,' but as this paper has argued is rather a facilitation of 'currently sound practices' until better ones surface. Supporting the innovation of college program delivery is important and continual improvement is the vessel that will best support continued innovation of learning-centred education.

The greatest question is to whether or not OCQAS, through its partially independent Management Board, provides QC at the back-end to ensure learning quality is taking place. While OCQAS facilitates knowledge to colleges on sound practices, audits college QA processes, provides advice on recommended corrections to QA and has an appeal process, the terminology *QC* does not appear once in the material available on the OCQAS website nor does QC seem to be part of the nomenclature associated with quality through the college system. This does not necessarily mean QC ceases to exist, but rather re-emphasizes the need for our quality education professionals to take notice of the distinction between these two very important components of a QMS.

---

[54] Ontario College Quality Assurance Service
[55] OCQAS, "OCQAS - Credentials Validation Service" accessed by http://www.ocqas.org/cvs.html on August 17, 2009.
[56] OCQAS, Program Quality Assurance Process Audit Orientation Manual, 3.
[57] OCQAS, CVS.
[58] OCQAS, PQAPA Manual, 4.
[59] Ibid, 5.

3.3   Creating a Complete Quality Management System

Central to a complete QMS for Ontario colleges must be the belief that quality is found through the achievement of fulfilling the college mandate and verifying quality through QA, QC and QI. However, the actual definition of quality must be focused on the fulfillment of a process of continual improvement towards excellence in learning. In other words, meeting college mandate is the first phase of being a high quality institution. However, it is the process of continual improvement and not the attainment of some desired end that *is* college quality. The operation model for a complete QMS should consist of: (1) vast and accessible data, (2) kaizen-oriented continual improvement and (3) performance indicators. Likewise, the end product of education should satisfy the four expectations found within the HEQCO quality model and the fourth expectation provided by this paper.

Currently there is a patchwork of quality management that exists in the Ontario college system. While this author does not feel that quality management currently flows through one QMS, only some change is necessary to achieve such. Front-ended QA comes from the Credentials Framework, Program Advisory Committees, and the development of college policies and practices regarding learning and course reviews. Back-ended QA is derived largely from college self-audits and OCQAS external reviews of college QA practices. QC exists in the front-end with the use of the CVS. However, the existence of QC is questionable at the back-end. An important component of QC is to be able to intervene in instances that the system stops producing the desired deliverable. At an institutional level, QC does broadly exist through the Act. The Minister may intervene in college affairs and assume responsibility over college operations if it is found that a college is not acting in the public interest.[60]. Upholding matters of public interest is a guarantee of accountability. An apolitical QC mechanism would intervene if this paper's definition of quality is not being followed. As a learning-centred approach gains more support, Ontario may wish to consider including the practice of this approach into the definition of public interest.

To practically apply a strong QMS, Ontario colleges must continue to conduct their own assurance processes. With the PQAPA continually providing sound practice ideas to college QA processes, continual improvement becomes a greater possibility. In fulfilling public interest in external QA reviews, OCQAS has a Management Board that is not subject to undue influence of colleges or government, yet it is not truly independent by definition of European Association for QA in Education specifications. Management Board membership currently includes the senior academic officers of Ontario colleges. The Management Board should become completely independent for the purposes of external QA audits. However, OCQAS has successfully provided transparency in continual improvement by posting executive summaries and follow-up reports online. These documents are relatively easy to read and, since online, are highly accessible to the public.

The QC process of a QMS must be more clearly identified, as previously mentioned. One such method for fulfilling this need is the review of learner performance throughout the duration of a course and intervening with proven practices. Program reviews offer some degree of QC, and the ability to interject and make immediate changes—or stop program delivery altogether—is a necessary component of QC that must always accompany these reviews. For programs, better understanding should

---

[60] CAAT 2002.

be gained regarding why students prematurely exit due to inability to achieve learning outcomes. This use of QC would provide help for QI. An important ingredient of QC is the use of data for proposing corrections when errors are made.

Data collected throughout the system has significant importance to making sound policy decisions. The ability to identify significant correlates within the framework can create better understanding of value-added to the student experience. The development of a data set will allow government to make more fiscally prudent investments in quality education and which investments would reap the greatest returns. However, this proposition is very expensive and may not be imperative for quality. Data on quality requires the measurement of achieved learning outcomes. The achievement of learning outcomes by students will satisfy colleges and government, as it is proof of the fulfillment of mandate. What is left as a void is the need for comparison by prospective students and the transparency that elitist ranking systems are believed to provide. While the use of a value-added system of measurement, such as the Finnie-Usher conceptual framework, could prove useful for such comparability, comparing college program success in facilitating learning outcomes achievement may prove more in line with this paper's tone.

The basis of any data set for following a student is the development of a numerical tracking system whereby a number is assigned to each student. In Ontario, this number exists in the K-12 system and is known as the Ontario Education Number (OEN). This number is a randomly assigned number given to each student entering Ontario schools under the jurisdiction of the Ministry of Education and is the number that identifies the student's Ontario Student Record (OSR) folder. Currently, this number ceases to travel with the student after completion of secondary school.

The utility of the OEN is mostly in data collection, which is a theme in the topic of measuring quality. The Ministry of Education uses the OEN system to track:

- Student attendance and achievement
- Course choices
- Special needs
- Systemic improvements
- Areas for further improvement
- Trend analysis.[61]

The PSE sector, and most importantly, the Ministry of Training, Colleges and Universities (MTCU), would require information contained within a domestic student's OSR folder to properly assess the beginning characteristics of the student upon intake. Yet, there are challenges to the maintenance of privacy that are to be raised if such a plan were to be implemented. Checks would have to be put in place to ensure that a meaningful learner profile could be created for each student, while not feeding into the development of positive or negative instructor biases based on prior academic performance. Significant privacy concerns would surely be raised, including access to information of past academic performance. A great deal of collaboration would have to be achieved through the Ministry of Education and the MTCU, along with necessary legislative change.

---

[61] Government of Ontario, "Ontario Education Number (OEN)" accessed by
http://www.edu.gov.on.ca/eng/document/brochure/oen/index.html on August 17, 2009.

The QMS requires more than just continual improvement based on college-defined goals, objectives and benchmark targets. As mentioned earlier in this paper, students and taxpayers invest a lot of money into colleges, and government must be able to continue to establish performance targets that are system-wide. Government must ensure that these targets do not disadvantage smaller- and medium-sized institutions. A fair compromise may lay in developing a performance framework where government identifies a few KPIs that are necessary to ensure accountability (such as those which already exist) and a specified number of remaining indicators can be chosen by colleges for their own, individual assessment and evaluation. However, this will require the creation and pooling of a greater number of potential performance indicators. The use of KPIs indeed satisfy needs for government accountability, however they do not satisfy needs for comparability.

30

Future Recommendations and Conclusion

Haunting the PSE system for some time has been an inability to answer: "what is the definition of quality?" This paper has clearly stated that college quality is learning-centred and is the process of continual improvement towards excellence. This paper has also defined excellence as the absolute achievement of learning outcomes by all students, of which prepares them to be drivers of their own learning. The reason this paper asserts that continual improvement is the best quality approach is because it supports frequent innovation and does not seek to conform to, and conserve, an established tradition. Continual improvement is not skeptical of change, but embraces it.

Undoubtedly, the time has come to utilise a QMS that takes into account the needed growth of Ontario's colleges in a learning-centred context of continual improvement. Traditionally, learning has been synonymous with comprehending and retaining information contained within course syllabi and programs. This paper has suggested that the learning-centred approach has become a significant factor in college culture and program delivery. While some colleges have willingly become learning-centred in both mission and practice, it is imperative that all colleges adopt these means to produce deeper learners, better capable of achieving independent, lifelong learning.

Government may prove to be most interested in developing and utilising a system such as this if they are able to maintain the ability to lay out what they feel are the indicators of a quality college. However, this is complicated by colleges moving towards greater autonomy and needing to find the means to best achieving learning quality on their own terms and in consideration of the particularities in their own communities.

A focus on continual improvement must be the cornerstone to any pursuit for self-reported institutional quality. Rewarding the growth of institutions according to their own starting points is the best way to move forward. Some good practices to consider at the program level for becoming more learning-centred have been identified as the use of academic-business connections (as already achieved through program advisory committees), creation of learner profiles, reception of effective feedback throughout the duration of the course and instructor self-reflection.

As long as the relationships can be significantly established between beginning characteristics, inputs, learning outcomes and end outcomes, a pool of quality indicators can be created to also provide a value-added understanding to the learning experience. This will require a commitment to using research resources to establishing the significant correlations and may prove to be too expensive. Likewise, if government believes that learning outcomes are the focus required rather than the quantity of learning by each student, the value-added approach is not necessary.

Colleges face a great deal of pressure in achieving performance targets set forth by government. However, the existence of performance targets will never be eliminated from the political system and its relationship with education as these are vital to maintaining accountability. In an era where government must be more prudent with coffers, the public service will certainly look at ways in which the public at large can be assured that investments produce worthwhile returns. To date, the achievement of targets has been one of the best ways for government to remain

accountable to their electorate. Accountability and quality are two separate, yet mutually important, concepts.

The inclusion of a QMS that focuses on the achievement of learning outcomes by students as central to student development is important for moving towards excellence in college education. A QMS will seek to ensure that students are becoming deep learners through the achievement of learning outcomes and that colleges are continually moving towards complete achievement of learning outcomes by all students.

This quality framework must be prepared to properly measure and evaluate the quality of learning taking place in Ontario colleges. The continuation of the existing QA process is imperative as it fits the description of best QA practices described in this paper. Added to this must be a clarified understanding of the QC function and strengthening it through the education process and particularly at the back-end. Since QA assumes the existence of quality, QC must be present and used for times that QA fails.

A data set must be created that uses the OEN to track students through the system. This data set should track beginning characteristics of each student, learning inputs, outcomes, and the end outcomes associated with educational achievements in college. This data set is important for colleges to monitor their progress and to make corrections to errors of the education process. Particularly important, a data set with significant correlates will better assist government in making the best use of investments into education—also satisfying accountability to the public.

To ease the tensions between a government's need to remain accountable to Ontario and a college's need to exercise self-determination in order to best utilise their unique and intimate understanding of their communities, indicators of performance ought to be decided by both colleges and government. An equal number of indicators chosen by both government and each college is the best manner in which to move forward for purposes of accountability. While government indicators would be standardised, they would have to be indicators that would not put specific colleges at an immediate disadvantage to performing well (e.g., smaller faculty-to-student ratios may be easier to achieve in northern Ontario colleges as opposed to urban institutions).

While colleges and government will be satisfied in understanding quality through continual improvement and key performance indicators, parents and students require some means of comparability. While this paper offers very little in suggestions for how to provide comparability, the paper does elude to creating comparability of achieved learning outcomes at each institution and program. However, this may act as a disincentive to colleges expanding the access of their programs to students at greater risk of not completing a program.

Balancing the needs of students, colleges and government is the only answer in addressing the quality issue. In attempting to produce students who are drivers of their own learning, what is most critical is developing a QMS without the slow creeping of government authority and control back over a college system that has earned the trust of government and now enjoys the exercising of greater autonomy and self-determination. Likewise, any QMS must be able to frequently determine what the improvement means to the life of the institution and, more importantly, what it means to the ability for students to achieve learning outcomes.

Bibliography

Bogue, E.G. "QA in higher education: The evolution for systems and design ideals" *New Directions for Institutional Research*.

Callahan, Maureen. "Chapter 4: Goals for Post-Secondary Education" in *Achieving Government, Community and Institutional Goals through the Measurement of Performance: Accountability and Performance Indicators in Ontario Colleges and Universities*. Toronto: OISE.

Cameron, David and Diana Royce. "History of Postsecondary Education in Ontario" in *Excellence, Accessibility, Responsibility: Report of the Advisory Panel on Future Directions for Postsecondary Education*. Toronto: Government of Ontario.

Council of Regents. "Vision 2000: A Review of the Mandate of Ontario's Colleges". Toronto: Ministry of Colleges and Universities.

Dennison, John. *Challenge and Opportunity*. Vancouver: UBC Press.

Fenning, Kristine. "Cohort Based Learning: Application to Learning Organizations and Student Academic Success" *College Quarterly* 7.

Finnie, Ross and Alex Usher. "Measuring the Quality of Post-secondary Education: Concepts, Current Practices and a Strategic Plan" Ottawa: Canadian Policy Research Networks Inc.

Frank, Christine. "Teaching and Learning Theory: Who Needs It?" *College Quarterly* 8.

Government of Canada, The Constitution Act 1982.

Government of Ontario, "College Diploma and Certificate Program Standards" http://www.edu.gov.on.ca/eng/general/college/progstan/intro.html

Government of Ontario. Ontario Colleges of Applied Arts and Technology Act 2002.

Government of Ontario, "Ontario Education Number (OEN)" http://www.edu.gov.on.ca/eng/document/brochure/oen/index.html

Government of Ontario, "What Does A Program Standard Contain?" http://www.edu.gov.on.ca/eng/general/college/progstan/contain.html?

Higher Education Quality Council of Ontario, Second Annual Review, Toronto: HEQCO.

Knapper, Christopher. "Changing Teaching Practice: Strategies and Barriers" Kingston: Queens University.

Munro, Carolin Rekar. '"Best Practices" in Teaching and Learning: Challenging Current Paradigms and Redefining their Role in Education.' *College Quarterly* 8.

OCQAS, "OCQAS - Credentials Validation Service" http://www.ocqas.org/cvs.html

Ontario College Quality Assurance Service (OCQAS). "Program Quality Assurance Process Audit Question and Answer" http://www.ocqas.org/pqapa-qanda-en.pdf.

OCQAS, Program Quality Assurance Process Audit Orientation Manual.

Rae, Bob. "Ontario: A Leader in Learning," Toronto: Government of Ontario.

Skolnik, Michael. "Community Colleges and Further Education in Canada" in *Global Development of Community Colleges, Technical Colleges and Further Education Programs* (eds.) P.A. Elsner, G.R. Boggs and J.T. Irwin. Washington DC: Community College Press.

College Student Alliance
301-372 Richmond Street West
Toronto, Ontario, M5V 1X6
Tel: 416.340.1212
Fax: 647.438.1979

www.collegestudentalliance.ca

October 2009