

July  
2010

# Program Evaluation In Ontario Community Colleges: Developing a Provincial Program Performance Scorecard

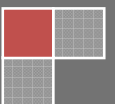
Research Report - Applied Project (APRJ – 699)

Submitted to: Dr. Arnold Love, Applied Project Supervisor  
Dr. Lindsay Redpath, Applied Project Coordinator

Word Count: 30,149  
Date: July 26, 2010

This study proposed to develop and evaluate the potential for system-wide acceptance and use of a standardized Provincial Program Performance Scorecard for the 24 Ontario Colleges of Applied Arts and Technology (CAATs). As required by the Program Quality Assurance Process Audit the proposed scorecard is intended to provide evidence of “regular program quality assessment” and the “provision of the systematic measurement of indicators that defined program outcomes have been met.” (OCQAS, 2009, p.15).

Diane Barrafato  
Graduate Studies – Masters of Business Administration  
Athabasca University, Alberta, Canada



## TABLE OF CONTENTS

TABLE OF CONTENTS .....	ii
ABSTRACT .....	v
ACKNOWLEDGEMENTS.....	vii
ACRONYMS .....	viii
<b>1.0 BACKGROUND AND INTRODUCTION .....</b>	<b>1</b>
1.1 Overview.....	1
1.2 Significance of the Study .....	2
1.3 Project Description.....	3
1.4 Background.....	3
<b>2.0 RESEARCH PURPOSE AND QUESTIONS .....</b>	<b>8</b>
2.1 Objectives and Assumptions.....	8
2.2 Research Questions.....	9
<b>3.0 LITERATURE REVIEW .....</b>	<b>9</b>
3.1 Conceptualizing Quality for Colleges .....	10
3.2 Approaches to Quality Measurement.....	13
3.2.1 “Minimum Standards” Approach .....	13
3.2.2 “Rankings/Indicators” Approach.....	14
3.2.3 “Learning Impacts” Approach .....	16
3.2.4 “Continual Improvement” Approach.....	18
<b>4.0 RESEARCH DESIGN AND DATA COLLECTION .....</b>	<b>23</b>
4.1 Theoretical Framework .....	23
4.2 Sample and Data Collection.....	24

---

4.2.1	Research Question #1.....	24
4.2.2	Research Questions #2 and #3.....	25
4.3	Data Analysis.....	26
4.4	Methods of Achieving Validity.....	27
5.0	DATA ANALYSIS AND RESULTS.....	27
5.1	Document Review: PQAPA Executive Summaries .....	27
5.2	Document Review: Program Review and Program Performance Models in CAATs.....	31
5.2.1	Comprehensive Program Review .....	32
5.2.2	Interim Program Review Processes.....	33
5.3	Proposed Program Scorecard .....	36
5.4	Feedback on Proposed Program Scorecard.....	42
5.4.1	Impact of the Quality Audit .....	42
5.4.2	Perceptions of Program Evaluation Approaches.....	44
5.4.3	Feedback on the Proposed Program Scorecard .....	47
5.4.4	Feedback on the Indicators.....	53
5.4.5	Feedback on the Proposed Data Sources .....	61
5.4.6	Feedback Related to Benchmarking.....	61
5.4.7	Overall Feedback on this Study and the Proposed Scorecard .....	62
5.5	Summary of Key Findings .....	64
6.0	DISCUSSION .....	70
7.0	RECOMMENDATIONS.....	73
8.0	CONCLUSION .....	75
	DEFINITION OF TERMS.....	II
	REFERENCES.....	V
	APPENDICES .....	IX

---

Appendix A: Project Information Sheet .....	X
Appendix B: Participant Informed Consent Form.....	XIII
Appendix C: Confidentiality Agreement .....	XIV
Appendix D: Document Review: PQAPA Executive Summaries .....	XV
Appendix E: Semi-Structured Interview Tool .....	XX

## ABSTRACT

Program evaluation and the management of programs of instruction in Ontario Colleges of Applied Arts and Technology (CAATs) are not simple matters. Academic programs offered by Ontario's 24 public colleges are diverse. They serve different purposes, communities and student groups, as well as multiple stakeholder interests. Approaches to program evaluation within the CAATs have received limited study.

This study has provided a critical examination of the literature of current practices related to program evaluation and measurement of "quality" in postsecondary education in Canada. This study examined current approaches to regular program evaluation and review in the 21 Ontario colleges that participated in this study. Reflecting on these approaches and the available literature, a proposed College Program Scorecard was developed which offers a balanced, comparative and quantitative approach to regular evaluation of college programs. The suitability of the proposed College Program Scorecard, for use as a standardized program performance model for Ontario colleges, was investigated through semi-structured interviews with a convenience sample of six Vice Presidents Academic, who were chosen to reflect colleges located in urban, rural, large, medium and smaller college settings.

Regular program evaluation, for the purpose of this study, refers to the annual or biennial process used to evaluate all active programs that a college offers between the periodic comprehensive review processes. The findings from the research project indicate that the current approaches to regular program evaluation vary considerably among Ontario's colleges, and they do not allow for comparisons in the quality and performance across similar programs offered among the colleges in Ontario.

The findings from this study also reveal that regular program evaluation is considered important by the study participants and occurs in 18 of the 21 colleges participating in this study. Five of the six VPAs interviewed supported the concept of a common program evaluation model for use across the college system such as the proposed College Program Scorecard. Further, there was support for a program performance model that offers an annual mechanism to evaluate program performance using standardized performance indicators and system-level data wherever possible. However, there was concern expressed that program comparisons and benchmarking be flexible and allow for variations within the system. Due to the sample size, the support expressed must be viewed as very preliminary and certainly not representative of the larger group.

Although, this study was exploratory, the initial positive feedback provided by the VPAs who participated suggests a willingness to pursue further study and consultation on a possible standardized College Program Scorecard. Issues to be explored include the identification of system requirements, development and/or refinement of current and new data sources and indicators, the identification of the costs and resources needed for implementation and ongoing monitoring of the effectiveness of a College Program Scorecard and reporting system.

The proposed College Program Scorecard model is intended to serve as a guide for colleges that will foster further dialogue and collaboration to define a core set of quality and performance indicators appropriate for use by colleges to demonstrate economic and societal values of college programs. The proposed College Program Scorecard is intended to provide tangible evidence of “regular program quality assessment” and the “provision of the systematic measurement of indicators that defined program outcomes have been met”, as required by the Ontario College Quality Assurance Services (OCQAS) through the Program Quality Assurance Process Audit (PQAPA) (OCQAS, 2009, p.15).

## **ACKNOWLEDGEMENTS**

I would like to thank Athabasca University for offering the first on-line MBA program in Canada and making this opportunity to pursue a Master in Business Administration possible for those who need to continue to work and care for family. I would also like to thank all the online coaches for your commitment to the program and to its AU MBA students. Special thanks are extended to Dr. Arnold Love, my Applied Project supervisor. Your guidance and insight in the area of program evaluation has greatly enhanced my understanding of this complex topic..

Thank you to Mohawk College for providing tuition assistance and the time to pursue a professional development leave to complete this project. Thank you to Rosemary Knechtel for the opportunity to lead the Program Performance Indicators Working Group at our college. This experience fuelled my interest and provided the foundation to pursue this area of study for my Applied Project.

I would also like to express my gratitude to all the Ontario college personnel who either assisted with or participated in this study. Without your involvement this work would not have been possible.

Thank you to Tim Klassen who offered early advice on the study design, the proposed college scorecard and the final manuscript and extended the invitation, on my behalf, to the colleges to participate in this study. Special thanks are extended to Dr. Mary Brown for your assistance in reviewing the research proposal and numerous drafts of this manuscript. Your advice through this process has been most appreciated. Thank you to Ian LeTourneau for your assistance with the final editing of the manuscript.

Thank you to my husband, Paul, our children, Nicole, Peter and Patrick and many family and friends who have had to put our time together on hold to allow me to pursue this work. Your support and encouragement were deeply appreciated.

Finally, thank you to my parents. You have always modeled life-long learning and a sense that anything is possible to your children and grandchildren. We will miss you dad!

---

## ACRONYMS

CAAT	- Colleges of Applied Arts and Technology
CAE	- Council for Aid to Education
CCVPA	- Coordinating Committee of Vice Presidents Academic
CCLA	- Community College Learning Assessment
CCSSE	- Community College Survey of Student Engagement
CLA	- Collegiate Learning Assessment
COP	- Council of Presidents
CSIN	- College Student Identifier Number
CVS	- Credentials Validation Services
ENQA	- European Association for Quality Assurance in Higher Education
ES	- Executive Summary
FFS	- Faculty Feedback Survey
FITS	- Freshman Integration and Tracking System
FTE	- Full Time Equivalent
GSA	- Graduate Skills Assessment
HEQCO	- Higher Education Quality Council of Ontario
IBP	- Internal Business Processes
I&L	- Innovation and Learning
INQAAHE	- International Network for Quality Assurance Agencies in Higher Education
KPIs	- Key Performance Indicators
MTCU	- Ministry of Training, Colleges and Universities



MYAA	- Multi-Year Accountability Agreement
NASF	- Net Assignable Square Feet
NSSE	- National Survey of Student Engagement
OCAS	- Ontario College Application Service
OCQAS	- Ontario College Quality Assurance Service
OECD	- Organization for Economic Co-operation and Development
PIR	- Performance Indicators Report
PLO	- Program Learning Outcomes
PPD	- Provincial Program Descriptions
PPIs	-Program Performance Indicators
PPS	- Provincial Program Standards
PPM	- Program Performance Model
PO	- Program Outcomes
PQAPA	- Program Quality Assurance Process Audit
TCH	- Teacher Contact Hours
VPA	- Vice President Academic



## **1.0 BACKGROUND AND INTRODUCTION**

### ***1.1 Overview***

This study proposes to develop and evaluate the potential for acceptance and use of a standardized Program Performance Model (PPM). The PPM suggests a set of core program performance indicators for the regular evaluation of academic programs offered in Ontario's 24 colleges. The model is intended to serve as a guide for colleges that will foster further dialogue and collaboration to define a core set of quality and performance indicators appropriate for use by colleges to demonstrate economic and societal value of college programs. Furthermore, as required by the Ontario College Quality Assurance Services (OCQAS) through the Program Quality Assurance Process Audit (PQAPA) the proposed model is intended to provide tangible evidence of "regular program quality assessment" and the "provision of the systematic measurement of indicators that defined program outcomes have been met" (OCQAS, 2009, p.15).

Program evaluation and management of programs of instruction in Ontario Colleges of Applied Arts and Technology (CAATs) are not simple matters. Academic programs offered by Ontario's 24 public colleges are diverse; they serve different purposes, communities and student groups, as well as multiple stakeholder interests. Approaches to program evaluation within the CAATs have not received much study. Further formal program review processes in the colleges are focused almost exclusively on how well program learning outcomes are met. The need to expand the definition of program quality to include other important performance indicators has been realized by college management in response to the continuing demand for accountability from their Boards of Governors, the Provincial Government and most recently the introduction in 2006 of the external audit process for CAATs known as the Program Quality Assurance Process Audit (PQAPA). For example, in business and industry most organizations have developed a set of performance indicators and measures to regularly evaluate how their products or services are doing. The question arises whether it is possible and/or desirable to define a set of core program performance goals and indicators at the system level – a "Program Performance Model" – that will facilitate the systematic and regular assessment of quality and effectiveness of Ontario programs.

This study is exploratory in nature and will attempt to determine the interest, support and next steps to move colleges forward in this direction.

The researcher has gained significant knowledge of quality assurance in the college system and programs, program accreditation and the Ontario PQAPA process. Between July 2008 and December 2009, reporting to the VPA, she was responsible for program quality including assisting her college with the PQAPA preparations and on-site visit. Also during this time she was and continues to be responsible for leading a cross-functional working group to research, recommend and develop a tool to be used college-wide to support the annual evaluation of academic programs. This work culminated in the development of five program performance indicators and the production of individual Program Performance Indicators Reports for each program for fiscal years 2007-08 and 2008-09. During the PQAPA on-site visit, the auditors commented on the anticipated value of this tool to provide an annual mechanism for the timely review of programs as part of the college's quality assurance framework. However, it is recognized that this tool is relatively new and that further modifications and improvements are and will be required to realize its full potential as a program performance evaluation model. This study is being conducted to further explore the topic of regular program evaluation in Ontario colleges and to meet the Applied Project requirements for completion by the researcher of a Masters in Business Administration degree program through Athabasca University in Alberta, Canada.

## ***1.2 Significance of the Study***

Oldford (2006) commented on Canada's lack of a consistent and comprehensive approach to quality assurance, and the lack of assessment at the institutional level. The PQAPA academic audit model initiated in 2006 begins to address this gap in higher education by providing a consistent, comprehensive, institutional-level approach to assessing quality, at least in Ontario's college sector (Saari, 2009).

With the first round of audits almost completed, 20 of 24 colleges have been through the process; it is apparent that the majority of colleges, 12 of the 20 audited, encountered difficulty with Criterion 5. Criterion 5 is concerned with how the college ensures regular program quality assessment. Most colleges have a program review process that provides a comprehensive review of all programs on a five or six year cycle. However, it does not appear that most colleges have established a documented process for a regular review of programs between the formal review processes to allow for the timely monitoring of program quality using relevant performance measures. This study will inform colleges, the provincial government and the OCQAS management board of some of the program evaluation approaches now in use by Ontario colleges. This study will also inform colleges, government and the OCQAS management board of the perceptions of the VPAs participating in this study concerning their support and desire

for a standardized PPM model, such as the one proposed in this study, to provide an annual program evaluation process to assist colleges in meeting PQAPA requirements and possibly to improve the quality processes that inform internal management decisions in Ontario colleges.

### **1.3 Project Description**

This study will provide a critical examination of the literature of current practices related to program evaluation and measurement of “quality” in postsecondary education in Canada with comparisons between jurisdictions. This is followed by a review of the current approaches to regular program evaluation and a review of the Ontario colleges that consented to participate in this study. Reflecting on these approaches and the available literature, a model is proposed which offers a balanced, comparative and quantitative approach to regular evaluation of college programs. The study goes one step further and presents the feedback offered on the proposed model from a sample of six VPAs, who each consented to participate in this study. Finally, recommendations are provided for next steps and suggestions are offered for further research.

### **1.4 Background**

Since 2006, the quality assurance practices of Ontario’s 24 colleges are subject to external review by the *Ontario College Quality Assurance Service (OCQAS)*, an arms-length and independent body. Through the PQAPA function, OCQAS coordinates regular, external, and independent audits assessing the effectiveness of the colleges’ quality assurance processes against a set of pre-defined requirements. As of the end of 2009, 20 of the 24 colleges have completed the audit process. The audit is based on a total of five broad criteria that are further broken down into 34 requirements.

Linda Saari (2009) explores the impact PQAPA has had on colleges and points out that the focus of the Program Quality Assurance Process Audit (PQAPA) is on college-wide policies and practices rather than individual programs. “Throughout the audit process, the institution’s program review practice and its implementation are examined, to validate that continuous improvement processes exist and results of the process are acted upon to assure program quality” (Saari, 2009, p. 5).

PQAPA has established a 5-year cycle of audits for Ontario colleges. The audit begins with a self-study by the college; this report is provided to a three-person panel (the audit panel) in advance of the site visit by the audit panel. The audit emphasizes continuous

improvement based on self-reflection rather than simple compliance with pre-determined standards (Saari, 2009).

The self-study process requires each college to determine how its operation is meeting or exceeding the following five defined exemplary quality criteria:

The following five (5) criteria define institutional policies and practices that a college will have developed and implemented to ensure the quality of their programs. It is assumed that all colleges will extend their tradition of openness and transparency to these processes.

- Criterion 1. Admission, credit for prior learning, promotion, graduation, and other related academic policies support program development and student achievement of program learning outcomes.
- Criterion 2. Programs conform to the *Framework for Programs of Instruction* and the *Credentials Framework*, are consistent with accepted college system nomenclature / program titling principles, and maintain relevance.
- Criterion 3. Methods of program delivery and student evaluation are consistent with the program learning outcomes.
- Criterion 4. Human, physical, financial, and support resources to support student achievement of program learning outcomes are available and accessible.
- Criterion 5. Regular program quality assessment that involves faculty, students, industry representatives, and others as appropriate for the purpose of continual improvement is in place and happens. (OCQAS, 2009, p. 7)

TABLE 1 shows that as of the end of 2009, most colleges were able to meet the first four criteria. However, the majority of colleges encountered difficulty in providing sufficient evidence to achieve a “met” decision on criterion 5. In fact, only 8 colleges of the 20 during the first round of audits “met” criterion 5. The other 12 colleges “partially met” criterion 5.

<b>TABLE 1: OVERALL FINDINGS OF PQAPA AUDIT PANELS BETWEEN 2006 - 2009</b>			
<b>Criterion</b>	<b>Number of Colleges that “Met” the criterion.</b>	<b>Number of Colleges that “Partially Met” the criterion.</b>	<b>Number of College with “Not Met” the criterion.</b>
<b>Criterion 1</b>	18	2	–
<b>Criterion 2</b>	14	6	–
<b>Criterion 3</b>	16	4	–
<b>Criterion 4</b>	17	3	–
<b>Criterion 5</b>	8	12	–

The significance of these results is that during the first round of quality audits the majority of colleges were unable to fully meet criterion 5 requirements and could not provide sufficient evidence to the audit panel that regular program quality assessment for the purpose of continual improvement was in place and was happening. These results demonstrate that most colleges do not have a satisfactory process in place for the regular program quality assessment. This study reviews the current program evaluation approaches used by Ontario colleges, and this information may help colleges to improve or initiate the appropriate regular program evaluation processes.

The PQAPA Orientation Manual provides further explanation about what is expected of colleges to meet criterion 5. Permission was given by OCQAS to reproduce the table from page 15 of the PQAPA Orientation Manual which describes the three requirements specific to Criterion 5. This information is provided in this paper below in Table 2.

	<b>Requirement</b>	<b>Explanation</b>
<b>5.1</b>	<p><i>The college has implemented a program quality management system that identifies and rectifies weaknesses, and facilitates the evolution of the program to maintain its relevance. This includes:</i></p> <p>a process</p> <ul style="list-style-type: none"> <li>○ <i>to review programs, courses, and academic standards,</i></li> <li>○ <i>to monitor improvement following review, and</i></li> <li>○ <i>to determine continuation or suspension of courses or programs;</i></li> </ul> <p><i>provision for the systematic measurement of indicators that program outcomes have been met;</i></p> <p><i>assurance that the views of learners, employers, professional and trade bodies, and academic communities are taken into account;</i></p> <p><i>changes to programs and courses are managed to keep them current with provincial standards and relevant professional body requirements; and,</i></p> <p><i>processes to ensure that recommendations arising from previous reviews have been considered and addressed.</i></p>	<p><i>To meet the changing demands of the workplace and international standards, career education must be subject to processes that objectively measure, assess, and, whenever necessary drive, program change.</i></p>
<b>5.2</b>	<p><i>Documentation and other evidence arising from program quality management processes is maintained and used in on-going quality management.</i></p>	<p><i>Successful program quality assurance processes result in continuous improvement, and tangentially produce documentation that can be used.</i></p>
<b>5.3</b>	<p><i>Graduates, employers, students, and other stakeholders indicate satisfaction with the program.</i></p>	<p><i>Satisfaction may indicate that expectations of the various stakeholder groups have been met, and where improvements can be made.</i></p>

Permission to reproduce above figure from PQAPA Orientation Manual, 2009, p.15, was given by OCQAS.



It is of interest to colleges and the system at large to examine how colleges are responding to the above requirements and what evaluation processes are being used to demonstrate that regular and systematic evaluation of programs is occurring. For example, prior to one college's audit, the Program Development and Renewal Committee of the Board of Governors identified the need for a college-wide program report card to demonstrate the annual systematic review of program performance and quality. In September 2008, a cross-functional working group was charged with the task to research, recommend and pilot an annual program performance reporting model. This led to the development of a college-wide annual reporting mechanism named the "*Program Performance Indicators Report*", or in short the "*PPI Report*."

Most colleges use a system of periodic review of programs or program clusters usually on a cycle of every five or six years. This periodic review is often referred to as a comprehensive program review or renewal process, which examines program data usually over a five or six year period, obtains stakeholder feedback on key aspects of the program and provides recommendations for program improvement. Although comprehensive, the process has received criticism because the program review process is not tied to a process of annual systematic evaluation of all programs that reports on program performance and promotes continuous improvement in the years between the program review cycles. The example provided in the previous paragraph shows how one college responded to this criticism by implementing a process that provides evidence that program performance is consistently monitored and reported on annually using a core set of performance indicators. The annual production of the PPI reports is intended to compliment and support the findings and recommendations of each cycle of the comprehensive review process and also serves as a flagging system to move lower performing programs up in the program review schedule when deemed necessary. In fact, evidence that such a mechanism was being piloted by this college was viewed as sufficient by the visiting audit panel to accord the college with a "met" decision for criterion 5.

The other main function of OCQAS is to provide program level quality assurance through the Credentials Validation Services (CVS). The mandate of the CVS (as defined in the Binding Policy Directive) is to:

- provide reasonable assurance that all postsecondary programs of instruction leading to one of the Ontario College Credentials (Certificate, Diploma, Advanced Diploma, or Graduate Certificate), regardless of funding source, conform to the Credentials Framework and are consistent with accepted college system nomenclature / program titling principles; and,

- maintain the integrity of the credentials offered by the system and protect the interests of students and employers who require a reasonable guarantee of consistency and quality in postsecondary programs of instruction offered by the colleges of applied arts and technology in Ontario. (OCQAS, 2010, para. 4)

The significance of the Framework for Programs of Instructions is that it requires that all college programs comply with the appropriate Provincial Program Standards or Provincial Program Descriptions, general education and essential employability skills outcomes. This standardization of program outcomes for like programs of instructions (programs designated with the same MTCU code), should allow for appropriate comparisons and benchmarking of programs of instruction with the same MTCU code if a standardized program performance model is adopted by all 24 colleges.

## **2.0 RESEARCH PURPOSE AND QUESTIONS**

### ***2.1 Objectives and Assumptions***

The main objectives of this research project are:

- Objective 1: To conduct a review of the literature to document the various approaches to program evaluation in post-secondary education in Canada and other jurisdictions.
- Objective 2: To collect and analyze current approaches used by Ontario colleges to measure program “quality” and to document the performance characteristics being measured and the performance indicators selected for this purpose.
- Objective 3: To develop a standardized Program Performance Model that provides a framework for a balanced, consistent and comparative systems approach to program evaluation for the Ontario public college system.
- Objective 4: To obtain feedback on the proposed Program Performance Model and its potential to be utilized as a system model for the regular evaluation of college programs?

A number of assumptions have been made to provide context for this research project. It is assumed that:

- Ontario publicly funded colleges will continue to be subject to an external audit process that requires colleges to meet the five criteria as indicated in the PQAPA Orientation Manual.
- The sample size of 6, representing 25% of the 24 vice-presidents responsible for the academic leadership and program quality in Ontario publicly-funded colleges, is sufficiently representative to inform this study.
- An examination of current program performance models and indicators may help to inform the discussion on the evidence that will help colleges meet PQAPA requirements as they relate to criterion 5 and offer insight into a possible system-wide set of indicators and program performance model.

## **2.2 Research Questions**

This study will attempt to answer the following questions:

1. What approaches to post-secondary program evaluation are currently utilized in Canada and other jurisdictions?
2. What current approaches/methods are being utilized by Ontario CAATs to measure program quality and what performance indicators are utilized?
3. What are the perceptions of the VPAs participating in this study of the impact the PQAPA process has had on their college?
4. What is the opinion of senior college administrators (e.g. VPAs) on the suitability of the model PPM proposed by this study and its potential for system utilization in the CAATS?

## **3.0 LITERATURE REVIEW**

The literature review for this qualitative study examined several themes including, program review and evaluation, quality assurance, accountability, performance measurement, key performance indicators as they pertain to higher education in Ontario, Canada and other jurisdictions. The focus of this study is to document current approaches to regular program evaluation for Ontario Colleges and to suggest a model for the system. As such, literature related to the college experience in Ontario was of

particular interest to informing the study at hand. Much of the available literature in Canada and other jurisdictions is focused on higher education within the university. However, this literature offers valid insight into issues that are common and pertain to both colleges and universities.

### ***3.1 Conceptualizing Quality for Colleges***

The literature on quality in higher education reveals several distinct approaches to conceptualizing quality (Astin, 1980; Skolnik, 1989). Until just recently, the main approaches have addressed inputs, educational processes, outcomes, and value added. During the past decade, another approach that has been receiving attention is the student experience. However, most studies on quality in higher education in Canada, and specifically in Ontario, have focused largely on the university sector rather than the college sector. A similar pattern occurs in the literature related to accountability measures and specifically the use of performance indicators in higher education.

Trotter, Cutt and Lee (1966), comment on the need for universities and hospitals in British Columbia to respond to the call for improved accountability reporting. The authors describe the climate in the 1990's in the following quotation:

*Increasingly scarce public resources and public frustration with the reluctance of institutions to provide persuasive evidence of value for money have eroded the tradition of self-regulation whereby institutions receive funds and the autonomy to use them as they saw fit. The reluctance or inability of public institutions to deal with broader accountability has led not only to general funding restrictions, but also to increasingly detailed specific restrictions, including conditions on funding – in short, to the erosion of autonomy. Reasonably enough, hospitals and universities have argued that they require autonomy to pursue their mandate, but the current fiscal and political climate in Canada in the early 1990s is such that the continued enjoyment of what remains of the self-regulatory model appears to depend on a willingness by universities and hospitals to take the initiative with respect to accountability; in short, autonomy is to accountability as rights are to responsibilities, and improved accountability is now the price of autonomy. (Trotter et al, 1996, p.1981)*

Trotter et al. (1996) provide an illustrative framework of performance information on patient care and teaching which hospitals and universities, respectively, might collect and report consistently as a first step to influencing the accountability agenda both within their institutions and externally. The authors suggest that the proposed framework is potentially generic to public departments and institutions, and also to a wide range of non-profit organizations that receive public subvention of one sort or

another. In this light, the proposed framework could potentially be applied to the public college system as well. They suggest that performance measurements in patient care and teaching can be seen within a matrix framework of process measures (input, process, output, and outcome) and attributes (desirable characteristics of the system, such as access, and quality). After consultation with the Ministry of Advanced Education, Training and Technology in Victoria, Trotter et al. (1996) propose the following seven attributes of performance for the teaching function: access, client satisfaction, efficiency, equity, quality, quantity and relevance.

The combination of the longitudinal categories of the process model and the seven negotiated attributes provided in matrix form a framework within which information needs about teaching can be defined. **Table 3**, below, illustrates the Trotter et al. (1996) proposed framework of information on teaching performance. Although information could be collected on all possible 35 cells, the framework allows for the users to determine and select only those cells which are of primary relevance to what is being measured. The authors negotiated 21 cells with staff in the Ministry of Advanced Education, Training and Technology as primary relevance to a framework of performance accountability for teaching in BC universities.

Attributes of Performance	Input	Process	Output Inter.	Output. Final	Outcome
Access	X	X			
Client Satisfaction			X	X	X
Efficiency	X	X	X	X	
Equity	X		X	X	
Quality				X	X
Quantity	X	X	X	X	
Relevance	X			X	X

Permission given to reproduce above figure from Trotter, L., Cut, J. & Lee, C. E., (1996). Public Accountability in Higher Education and Health: An International Perspective. *Int'L.J. OF PUB. ADMIN.*, 19(11&12), Figure 7, p. 1999.

**Figure 3** shows in 1996 the practice of BC universities was to report or collect data on only 6 (those cells shaded grey) of the 21 cells. The paper provides an appendix which suggests performance indicators for each of the 21 information cells.

The authors note that

The irony is that the failure to collect and report this information need not imply that the information is actually bad; indeed, the story may frequently be very impressive, and the failure to tell it is as much a marketing disaster as incomplete accountability. (Trotter et al, 1996, p. 1999.)

Although, the framework is offered to address the external need for accountability, the authors also defend the reporting framework simply on the grounds of internal accountability reporting. They argue that the matrix of information is necessary for managers at all levels in public institutions to do their jobs effectively and efficiently, and the collecting and reporting of information to internal constituencies such as staff and governing boards should be seen as the basis of informed and participatory decision-making.

The Trotter et al. paper raises the question about whether accountability concerns have been adequately addressed today in universities and colleges in Canada and specifically in Ontario. Recently, the Premier of Ontario, Dalton McGuinty weighed in on this issue in an article reported by Karen Howlett, on April 9, 2010 in The Globe and Mail, titled, "McGuinty gives Ontario colleges and universities an F in new spending" (Howlett, 2010). Mr. McGuinty stated, that "Ontario's colleges and universities need to be more accountable for the taxpayers' dollars that support them" (Howlett, 2010, para. 2).

As Premier, McGuinty has made education one of his highest priorities during his six years in office, directing billions in new funding to Ontario college and university campuses. In spite of this investment, he has indicated that he is not satisfied with their performance. He is quoted as saying,

Can I honestly say that I have got qualitative improvement as a result of these investments? I don't think so, and we need to talk about that. We have not demanded the same kinds of accountability that we have with our hospitals and elementary and secondary schools. (Howlett, 2010, para. 5)

Howlett (2010) reports that McGuinty says he needs to have "honest conversations" in the coming months with university and college campus leaders about what they can expect in return for the funding they receive.

On the issue of autonomy he is quoted as saying,

There is this issue of academic independence,...I think we are going to have to come to grips with that in a 21<sup>st</sup>-century kind of way if we are going to continue to

be the principle funders for our colleges and universities. (Howlett, 2010, para. 15)

Clearly, Ontario's colleges and universities cannot ignore the need to work with government to determine what is expected and how performance should be measured and reported.

### ***3.2 Approaches to Quality Measurement***

Finnie and Usher (2005) provide an excellent and thorough account on the issue of the measurement of "quality" in post-secondary education. It should be noted that the discussion of quality in post-secondary education in this paper focuses primarily on the quality of the education provided by universities to its students, and does not touch directly on the college experience nor on how universities perform in terms of their research mission. They indicate, that in broad terms, there are four approaches to quality measurement in OECD countries: specifically minimum standards, rankings/indicators, learning impacts, and continual improvement. Each of the approaches is described next in further detail.

#### **3.2.1 "Minimum Standards" Approach**

The minimum standards approach employs a mostly qualitative methodology and is the foundation of the periodic review process (often called "cyclical reviews" or "program review"). It is most common throughout the OECD and used in all Canadian universities with the 'unit of analysis' being the departmental level. This approach has also been largely adopted by Canadian college sector and certainly by all 24 Ontario public colleges where the unit of analysis is a "program of instruction" (a specific program or a program cluster). The minimum standards process usually begins with a self-audit conducted by the unit under review. Some countries have either regional or national organizations which have put in place certain recommended standards; the institution or unit must use these data to self-assess whether or not it is meeting these standards. Finnie et al. (2005) note that in many countries, the self-audit is then followed up with some form of external examination. In Canadian universities, this is done simply by inviting colleagues from other institutions to participate in the self-audit. In Ontario colleges this is usually not done. However, some colleges have added an external review component to their program review process.

Finnie et al. (2005) point out some limitations of the minimum standards approach, which are:

- The approach's reliance on a self-examination is less than objective, and outside experts, either from within the same institution or within the same discipline, may hesitate at making tough statements to avoid a critical review in future at their own institution.
- The approach tends to generate reports which may be useful as an internal management tool but are of little use to outsiders, such as government, and do little to foster "transparency".

The authors make an important point that in jurisdictions where government has a role in the review process the lack of transparency is offset by the fact that at least one major external stakeholder understands the process and has some "ownership" in the results. They also note that in North America, however, where government is not involved in these processes, the "minimum standards" process is both opaque and exclusive. The outcome in North America they note has been that the desire for more transparency and easily understandable measures of quality have been greatest, and it is in North America where the greatest interest has been shown in quantitative indicators and easy to understand rankings.

### **3.2.2 "Rankings/Indicators" Approach**

The "Rankings/Indicators" approach emerged during the 1980s through the early 1990s in response to the needs of educational consumers (mostly parents) and governments (funders of educational institutions) wanting more comparative information regarding educational institutions and a need to demonstrate "value for money" to evaluate the effectiveness of their spending (Finnie et al., 2005). The authors note that these rankings in many countries are prepared by private-sector publishers; however, their usefulness is limited in that the information focuses almost entirely on input measures reported at an institutional level. Examples of such "rankings" are U.S News & World Report in the USA and Maclean's in Canada, the Times Higher Education supplement in the UK, and Asiaweek for East and South-east Asia.

Finnie et al. (2005) note,

Thus while these rankings may be an excellent exercise in transparency (although there are certainly arguments to the contrary, as stories surface from time to time about institutions devoting considerable human resources to manipulating the data provided to the body doing the ranking) – above all else, they provide handy, easy-to-understand quantitative capsules that may be used by non-specialists. Indeed it is precisely the ease with which rankings systems are understood that is their greatest strength; above all else, they bring transparency to institutions. (p.9)



Finnie et al. (2005) note that with indicators, such as Key Performance Indicators (KPIs), governments took the opposite approach and focused on reporting output measurements. They note also that by 1996, 36 US states had tied some institutional funding (usually a very small portion) to Key Performance Indicators. Also not all states that used performance indicators used them as a funding tool and not all of them applied performance indicators at the institutional level. California, New Jersey and Ohio collect performance indicator data but publish it only at the system level, not the institutional level. In Canada, performance indicators have had a shorter and more varied history. Some institutions (e.g. University of Calgary, University of New Brunswick, Conestoga College, Malaspina College) have informally used different types of performance indicators internally. British Columbia, Quebec and Newfoundland, to varying extents, collect and publish performance indicator data. Alberta and Ontario are the only provinces where institutional performance indicators are actually tied to a small portion of overall funding envelope (two percent or less). Finnie et al. (2005) observe that among those jurisdictions that publish institutional performance indicators, institutional graduation rates (additional variations on this theme are retention and persistence) appear to be the only key indicator that has universal acceptance as a measure of institutional performance. Other indicators that are widely used are graduate employment, and graduate satisfaction with their education, and financial indicators which are usually measured by having low administrative overhead. Less frequent indicators are faculty diversity, student default rates, fundraising performance and quality data reporting. They note that the problem with KPIs is the results are reported without any reference to inputs which merely re-creates the same problem in mirror image as occurs with “rankings”.

They offer an analogy to hospitals:

Imagine, for instance, that hospitals were ranked based on the mortality rates of their patients. Before rushing to conclusions about the “quality” of each institution based on such rankings, one might want to know what kind of patients each hospital admitted. So, too, with educational institutions; judging open-access institutions by the same standards as ultra-selective ones without making adjustments for the nature of the student body guarantees biased results. (Finnie et al., 2005, p. 10)

Recently, Ian Clark, Greg Moran, Michael Skolnik and David Trick (2009) have included colleges in their discussion of quality and accountability measures in higher education in their book, *Academic Transformation: The Forces Reshaping Higher Education In Ontario*. Clark et al. (2009) discuss the use of Key Performance Indicators (KPIs), introduced in the mid-1990s by the Government of Ontario as a mechanism for institutional reporting in the college sector.

They state, “Presently in Ontario the focus of accountability is only the institution” (Clark et al., 2009, p.126). They go on to point out that

Much of the information from which the institutional performance indicators are derived is also available at the program level. Also the questionnaires used in the data collection address other matters in addition to the five performance indicators (student satisfaction, graduation rate, employment rate, graduate satisfaction, and employer satisfaction) for which data are published. For example, there are questions about the number of graduates working part-time, the number working in a job related to their field of study, and their starting salaries. The information from the performance indicator surveys can be used for program management, for example in examining how well a program is meeting labour market needs. (Clark et al., 2009, p.126)

### **3.2.3 “Learning Impacts” Approach**

The “Learning Impacts” approach emerged due to the dissatisfaction expressed from within the educational community itself with KPIs and ranking schemes (Finnie et al., 2005). Educators argued that they considered themselves to be in the business precisely to help people learn, therefore, it seemed deeply unfair that “quality” was being judged on measurements which effectively ignored the educational process. Finnie et al. (2005), however, correctly point out that “inputs and outputs were easier to measure and describe than the learning process: hence their attraction, especially to policymakers”(p.13).

The search for a set of indicators that would actually describe the effectiveness of the learning process within institutions led to the development of the National Survey of Student Engagement (NSSE – pronounced “Nessie”), which was piloted in 75 institutions in 2000. The program grew quickly to several hundred institutions and spawned a sister-survey known as the Community College Survey of Student Engagement (CCSSE or “Sessie”). NSSE is a four page survey asking students about their learning experiences at institutions, such as average frequency and duration of homework, frequency of contact with faculty or other advisors, number of books read for courses and for pleasure, etc. The results are turned into a series of institutional “scores” which describe how well the university does at creating a “learning environment.”

The institution receives its own scores as well as those of other institutions within its “peer group” (based on the institution’s Carnegie classification). The tool has served as a superior management tool – it provides precise, quantitative data regarding aspects of the learning experience which can be used to modify policy and practice within an institution. However, these data are not made public and, as Finnie et al. (2005)

observe, would probably not have gained such wide acceptance so quickly if there had been any indication that the results would be made public. Another limitation of the tool is that it does not measure learning outcomes. Instead it measures the correlates of good learning outcomes and assumes learning is taking place on the basis of this. Another flaw of the NSSE, as noted by Finnie et al. (2005), is that it is content-free; it can determine whether “learning” is taking place, but says nothing about *what* is being learned. They also point out correctly that

Methodologists may also question the accuracy of a survey that relies on students self-reporting on questions such as “How often have you worked harder than you thought you could to meet an instructor’s standards or expectations.” (Finnie et al., 2005, p.14)

Finally, although the relationship exists intuitively, there does not appear to be any substantial literature linking good “learning” results to future career and life outcomes.

Finnie et al. (2005) point out that the Graduate Skills Assessment (GSA) was developed to measure graduate skills in critical thinking, problem solving, interpersonal understanding and written communication, a test of “soft–skills”. Finnie et al. (2005), note the GSA approach remedies some of NSSE’s deficiencies in that it measures *demonstrated* learning outcomes, as opposed to implied ones. They further point out that a flaw with the GSA is there is no compulsory entry-level test. The GSA is open to the same critique leveled at KPI’s: namely, that output measurement without complementary input measurements are essentially meaningless. They also point out the introduction, in 2000, of the Collegiate Learning Assessment (CLA) in the United States, an approach to learning measurement that corrects for this problem. The CLA is meant to test general skills, such as ability to communicate and critical thinking; unlike the GSA, the CLA has both an entry and exit component, allowing a look at precisely what progress each individual student has made over the course of his or her studies. They argue that this approach is superior to NSSE as it measures learning directly instead of inferring it, and it looks at individual student’s results as opposed to simply measuring the learning environment. The basic approach of testing general skills at more than one point in time to measure educational effectiveness, which is widely understood and accepted, is similar to that used in Ontario on which K-12 measurement efforts by the Ontario’s Education Quality and Accountability Office are modeled. However, like NSSE the CLA results are not made public and the CLA relies on the institution, rather than the individual student, as the primary unit of analysis. Council for Aid to Education (CAE) has adapted the CLA for US community colleges, called the Community College Learning Assessment (CCLA).

There does not appear to be a Canadian equivalent to CLA or CCLA that measures student learning in general skills. Rather, in Ontario, the Ontario College Student Engagement Survey (OCSES), used by all public colleges in Ontario since 2006, collects data on student profile and level of engagement with peers, program and institutional elements. Data from the OCSES can be used to link student characteristics and student experiences with outcomes such as grades or departure decisions (Hook, 2007). Institutional participation in the OCSES is mandatory for all Ontario colleges within the Ministry of Training, Colleges and Universities (as stated in the Multi-Year Accountability Agreements (MYAA's) for Colleges, Ministry of Training, Colleges and Universities); however, participation is voluntary for individual students (Mohawk College, 2007). The inclusion of student success and persistence data in the form of first-term grades and enrolment status allows for the examination of the predictive value of this instrument for student success and persistence. Based on grades and enrolment status, Dr. Peter Dietsche formulated a profile of four types of students (using the overall provincial dataset): successful persisters, successful leavers, unsuccessful persisters, and unsuccessful leavers (Dietsche, 2007). Using these profiles, institutions can identify their own students who may or may not be at risk of leaving or being unsuccessful (CCI Research Inc, 2009).

### **3.2.4 “Continual Improvement” Approach**

Finnie et al. (2005) state that “while the “Rankings/Indicators” and “Learning Impacts” trends were gaining steam in North America in the 1990s, developments in Europe took a rather different turn” (p. 15). There was some discontent with the minimum standards approach as it provided no incentive for improvement. This led to a shift towards managerial concepts, such as those used in for-profit enterprises, such as “performance benchmarking”; that is, an approach which required institutions to meet performance targets based on results at other organizations one wishes to emulate. The best known is the Japanese concept of *kaizen* (promoted in North America by Tom Peters), or “continual improvement.” This concept has in practice been enshrined through a set of concepts known as “ISO 9000.” ISO 9000 is a management standard that defines quality as a process – a way of conducting one’s operations with a view to continual improvement. Sweden, Australia and the UK all adopted this approach and are increasingly concerned with auditing the effectiveness of the universities’ quality management process. This approach is labour-intensive at the institutional level because institutions have to devote significantly more resources to creating and analyzing data on their own processes. Finnie et al. (2005) also point out another drawback: transparency. Because each institution measures its own metrics in its own way, the inter-institutional comparability of certain indicators is lost. They also note that the oversight reports of institutional quality procedures – effectively a form of process audit – tend not to be easy reading, thus further harming a transparency agenda.

In Ontario, the institutional audit process used in public colleges has adopted the “continual improvement” approach, which is closely modeled on international academic audit standards for higher education. It too is a process-type audit called the Program Quality Assurance Process Audit (PQAPA), administered through the Ontario College Quality Assurance Services (OCQAS). The PQAPA process began as a pilot in 2006, and all 24 colleges will have been through the first cycle of audit by 2010. Massey (2006) confirms in his review of Ontario’s PQAPA process, that the Ontario colleges’ quality assurance system “falls squarely in the audit category” (p.1). In an effort to foster transparency, the executive summaries of the Final Audit Report are posted to the OCQAS website. One may ask if this meets the standard of ‘public reporting’ that is raised in both the INQAAHE standards and the ENQA guidelines (OCQAS, 2010).

Finnie et al. (2005) also propose a general conceptual framework, or model, for thinking about the various issues relating to the measurement of quality of post-secondary education. Actually, the framework bears considerable similarity to the one discussed earlier proposed by Trotter, Cutt and Lee (1966). However, Finnie et al. (2005) take the characteristics of the student in account in their model. They provide a simple schematic which is show below:

*Beginning Characteristics* → *Learning Inputs* → *Learning Outputs* → Final outcomes

The arrows do not represent purely causal flows in all cases. Finnie et al. (2005) explain the schematic in this example:

For example, although individuals’ beginning characteristics come before their exposure to learning inputs in the model, these characteristics will not generally “affect” those inputs, since individuals do not control the resources available to the institutions they attend or how those resources are organized to create the person’s learning experience. Individual’s beginning characteristics can, however, be “correlated with” the learning inputs to which they are exposed (e.g. better students are more likely to go to better schools) or might otherwise interact with the inputs available and will in any event likely be related to learning outcomes and final outcomes and must, therefore, be taken into account in the general set of flows. In the other cases, the flows do indeed represent causal relationships. (Finnie et al, 2005, p. 19)

The above framework is generic and can be applied to either the university or college sector. They also point out that their model incorporates the strengths of both rankings/indicators approach and the learning impacts approach, while better taking into account student background characteristics. They go on to state that objections regarding insensitivity to differences in institutional missions can be overcome simply by controlling for – or specifying a completely different set of – beginning characteristics,

inputs, learning outputs, final outcomes and /or the associated relationships for each institution or type of institution.

A report prepared by The Education Policy Institute (2008) provides an excellent overview of the current state of quality measurement indicators and systems within the higher education sector in Ontario. However, much of the report is focused on the university sector. The report sponsored by the Higher Education Quality Council of Ontario discusses the possible areas for quality indicators and specifically the indicators that are of most interest to each stakeholder or client group. The report identifies three major sets of “clients” for comparative information about colleges and universities as university boards of governors and college governing boards, institutional managers, senates, etc. The second is the public at large and the governments through which the educational institutions receive billions of dollars in funding. The third are what might be called “consumers”: students, prospective students and their families. The possible areas for quality indicators are grouped into the following types: input indicators, research indicators (which applies mainly to the universities), teaching and learning indicators, internal service function indicators, and output indicators. The report concludes by offering three possible models for the common data management of quality indicators: Accountability Model, Transparency Model and the Open Access Model. The report does indicate that the level of reporting on a set of quality indicators requires special consideration and in some cases should be done not just at the institutional level but may be most appropriate at the field of study level, e.g., Bachelor of Science degree. It is important to note that the field of study level is a descriptor applied to university programming, whereas in the college system the comparable level would be at the program of instruction.

The paper “An Exploration of key performance indicators for academic quality” by Dr. Jan Cameron, presented at the 2009 INQAAHE Conference, offers a very thorough discussion of the relationship between key performance indicators and academic quality in universities. Cameron discusses the problems with the indicators of academic quality which have been derived from aggregate institutional data (Cameron, 2009). She notes that many of the real attributes of academic quality of interest to university staff would also be of interest to staff in the college setting and are not agreeable to numerical representation. The paper suggests alternative measures to the conventional performance measures such as retention and completion rates, which are problematic for many reasons and are not direct measures of quality. Cameron proposes alternative measures which derive more directly from key academic quality assurance activities and which might also be valuable for benchmarking and bench learning. The paper provides examples of performance indicators for academic quality derived from the quality assurance processes themselves rather than from best available aggregate data

and argues that these are most likely to be meaningful for assessing and influencing quality.

Cameron (2009) poses four questions that are used to guide the work of defining and measuring learning and teaching excellence:

1. How do we determine “excellent” teaching and learning?
2. What are the processes in which we engage to encourage excellence in teaching?
3. Apart from excellence in teaching, what are the processes in which we engage to encourage excellence in learning?
4. How do we know that these work. (Cameron, 2009, p.6)

Cameron (2009) proposes alternative performance measures and ways to control for variations in the two dimensions of “quality”: excellent learning and excellent teaching.

The work by Linda Saari (2009) represents the only study to date that has been conducted to examine, as the title summarizes, “The Impact of the Program Quality Assurance Process Audit (PQAPA) on the Ontario College System”. Her study examines the perception of the VPAs at sixteen colleges after the first three years of the implementation of the audit process in Ontario.

Saari (2009) concludes,

However, the field for further research is open in more specific areas of investigation. Once the full PQAPA cycle is complete, research with all 24 Ontario colleges would provide a larger sample and could determine the impact of the audit process with more certainty. As colleges move into the second cycle of audits, actions can be added and research conducted to try to identify more concrete measures of quality, including outcomes, if the will is there to do so. (p.40)

And, she continues,

This study has produced preliminary research on the impact of the PQAPA process on the Ontario college system. It can serve as a precursor to a future research project that will determine next steps in measuring quality assurance and continuous improvement in Ontario colleges for the future. (p. 40)

In summary, the literature and research on quality assurance and approaches to program evaluation in higher education reflects a relatively new and evolving field. Most

of the research has examined these issues in the university rather than community college context. However, this literature offers valid insight into issues that are common and pertain to both colleges and universities.

The main approaches have addressed inputs, educational processes, outcomes, and value added. Trotter et al. (1996) offers an illustrative framework of performance information which was applied to measuring patient care in hospitals and teaching in universities in British Columbia. The matrix of information plots inputs, process, output intermediate, output final and outcomes against the attributes of performance to be measured. The authors suggest that the framework has application to other public institutions and is offered to address the external need for accountability as well as a matrix of information essential for managers at all levels in public institutions to do their jobs effectively and efficiently. Such a framework can be used by colleges to compare current evaluation approaches to the ideal matrix of information.

Finnie et al. (2005) provide a comprehensive review on the four common approaches to the measurement of quality of education provided to students by universities in OECD countries. However, most of these approaches have also been adopted by Ontario and other Canadian community colleges, such as the 'Minimum Standards' approach in the form of a periodic comprehensive program review process common in Ontario's colleges; the application of 'Rankings/Indicators' in the use of provincial KPIs in Ontario to report on institutional performance of Ontario colleges; the application of 'Learning Impacts' in the use of the Ontario College Student Engagement Survey (OCSES) used by all Ontario CAATs since 2006; and finally the application of the 'Continual Learning' approach with the introduction of the audit process of Ontario CAATs in 2006 through the Program Quality Assurance Process Audit. Finnie et al. (2005) offer a generalized framework, or model, which takes into account the beginning characteristics of the students and the institutional characteristics. The authors suggest that the framework is generic and can be applied to either the university or college sector.

Program evaluation must satisfy the information needs of both internal and external calls for accountability. The common approaches described by Finnie et al. (2005) range in their suitability to provide information needs of both the internal and external communities. This is the ongoing challenge facing colleges and universities in Canada and particularly Ontario. This study on Ontario CAATs will inform the literature on this subject as it relates to program evaluation and quality assurance in the Ontario college system. It is of interest to colleges and the system at large to examine how colleges are responding to PQAPA requirements and, specifically, what evaluation processes are being used to demonstrate that regular and systematic evaluation of programs are occurring. The focus of this study is to document current approaches to regular program evaluation for Ontario Colleges and to suggest a model for the system. As such,



literature related to the college experience in Ontario was of particular interest to informing the study at hand. Much of the available literature in Canada and other jurisdictions are focused on higher education within the university. This study will contribute to the Canadian perspective by reviewing current program evaluation approaches in CAATs and suggesting a standardized model for program evaluation for Ontario's colleges. This study will provide one illustration of how program evaluation could function using a system level approach rather than the varied approaches employed across the college sector.

## **4.0 RESEARCH DESIGN AND DATA COLLECTION**

The research design and methodology follow closely with the approach used by Linda Saari (2009) in an earlier study related to the impact of the PQAPA process on Ontario Colleges. Similarly, the methodology chosen for this study is qualitative, employing document review and semi-structured recorded interviews with a sample of VPAs.

### ***4.1 Theoretical Framework***

The data collection phase of this project took place between February and May 2010. Ethics approval for this study was received from the Athabasca University Research Ethics Board using the Research Ethics Board application, Centennial College Research Ethics Board involving Human Subjects and Mohawk College Research Ethics Board. The project complies with all the standards and procedures for governing research involving human subjects, as outlined in the in the Tri-Council Policy Statement: Ethical Conduct for Researching Involving Humans (2003). All the participants in this study were treated with dignity and respect. This researcher took care to maintain "accuracy, candor, objectivity and sensitivity" in all aspects of conducting this study.

This study is qualitative and exploratory in nature, and is interested in "strategic sampling of insightful informants or revealing situations" (Palys, 2003, p.74). An inductive approach was used to collect data that will answer the key research questions, which include a literature review, an analysis of current tools and a semi-structured interview process. With this type of approach, according to Merriam and Simpson (1995), the researcher seeks "to discover and understand a phenomenon, a process, other perspectives and worldview of the people involved" (p.11). In this particular case, the focus is on understanding the current approaches in Ontario's colleges to provide the evidence that effective and regular program evaluation occurs as required by

criterion 5 of the PQAPA process, including the perception of those involved in shaping this approach, and their perceived support for a system-wide model.

Like most qualitative research, this study will take a constructivist view that “reality is constructed by individuals in interaction with their social worlds” (Merriam and Simpson, 1995, p. 97). From this theoretical perspective, knowledge comes from experience (Palys, 2003), and will begin with the researcher’s own experience with the development of a PPM for one college. This will then be compared to the PPM of each college, before a system-wide model is developed, proposed, and evaluated by the VPAs participating in the interviews. The research was conducted in a manner that avoids assumptions about results until data was collected and analyzed.

The literature review was conducted before the interviews in order to plan the interview questions, to strategize about how to probe for additional ideas, and to help extract meaning from the data collected.

## ***4.2 Sample and Data Collection***

### **4.2.1 Research Question #1**

Research question #1 investigated the current approaches/methods utilized by Ontario CAATs to measure program quality and the performance indicators employed for this purpose. The methodology used to investigate question #1 involved contacting the “college PQAPA contacts” after the VPA for their college had confirmed their participation in the study and the collection of samples of program review and annual program performance models. In all, 21 of 24 colleges provided the information requested. The researcher contacted this group by email and by phone to explain the study. Sample group participants were solicited by email requests to obtain authorization to provide this researcher with a copy of the PPM used by their college (**Appendix A**). The email request also included a Project Information Sheet that explained the project in detail and a Participant Informed Consent Form (**Appendix B**), which was to be signed and returned to the researcher.

To collect data for this phase of the study, colleges were invited to provide a copy of the documents describing the comprehensive review process utilized by their college and any other processes that were used to review and evaluate programs between the comprehensive program reviews. The collection of this data has informed this study of how many colleges have established program performance indicators that are reported on annually to measure program performance and quality on a regular and consistent basis. The data has also helped to determine which indicators and data sources are

used most often for this purpose by colleges and how reflective these indicators are of the characteristic of performance that is being measured. The data was useful to answer the question about what characteristics of performance are currently not being measured and what barriers exist to addressing these gaps.

#### **4.2.2 Research Questions #2 and #3**

Research question #2 investigated the perceptions of the VPAs regarding the impact of PQAPA process on their college. Research question #3 sought the opinion of these VPAs on the suitability of the proposed program performance model and their view of its potential utilization in the Ontario college system.

The methodology used to investigate questions #2 and #3 includes a convenience sample of 6 VPAs from Ontario colleges, who had participated in the PQAPA process between 2006 and 2009, and also participated in the semi-structured interviews for this research. Three VPAs were selected from the group of colleges that 'MET' criterion 5; another three VPAs were selected from the group of colleges that 'PARTIALLY MET' this criterion. At the time of the audit, this researcher reported to one of the VPAs; therefore, this institution was not included in this sample to prevent conflict of interest. Every effort was made to identify and recruit a convenience sample of 6 VPAs, representing large, medium, small, urban and rural Ontario colleges for interview.

Six semi-structured interviews were scheduled between April/May 2010 and conducted in person, or by phone, by the principal researcher. Interviews were one hour, and interview questions and the proposed program performance model were provided in advance as a guide. A receptive but neutral approach was maintained by the researcher. All interviews began with an overview of the research and a discussion about confidentiality. Restricting data collection to one interviewer and the use of an interview guide to direct interviews help to ensure that key research questions were addressed consistently. The interview questions were piloted during the first interview and minor adjustments were made to the questions based on the pilot interview, and clarification was provided to participants where necessary. Notes were taken throughout the interviews, which were also audio-recorded (with permission) using a Sony IC digital recorder – ICK-MX20 for accuracy and transcription purposes. Tapes were transcribed using software specific to this recorder – Digital Voice Editor Ver. 2.3 for ICD-MX/MS/ST/S/BP/BM series for Windows by an assistant employed by the researcher. The assistant signed a Confidentiality Agreement (Appendix C) to ensure the privacy and confidentiality of the recorded data. Only the researcher and the assistant transcribing the data had access to identifiable raw data in the form of audio-tapes, interview notes, and transcribed audio tape notes.

The semi-structured interview allowed the interviewer some latitude to explore unique perceptions of individuals. It also allowed the interviewer to probe, follow-up or clarify ambiguities, and allowed the interviewees to ask questions or clarify responses. Using this approach, the interviewer was able to adapt questions, refine the data collection, clarify and summarize during the interview, and check for accuracy with respondents.

Wherever possible, selected rating or ranking scales were used during the interview in order to quantify some inquiries. Qualitative responses represent most of the data collected, to capture depth and richness and to accurately reflect the perceptions and experiences of the participants at each college. These responses were recorded and reviewed for themes and trends at the analysis stage.

Notes and tapes were kept private and anonymous. Data was maintained in password-protected documents and in a locked drawer in the researcher's home. All information and records will be maintained for three years until June 2013 and then destroyed by confidential shredding, electronic records will be deleted, and tapes or audiofiles erased, when all project marking and publication requirements have been met.

Findings were generally grouped and no college or individuals were named. Individuals participating in interviews provided signed participant consent forms.

### **4.3 Data Analysis**

Written notes were kept from each interview. Audio tapes were reviewed to ensure accuracy of notes. Interview notes and participant responses were charted and reviewed using nominal, ordinal and interval measures wherever possible. These were studied and analyzed by the researcher to identify general categories, issues, trends, and patterns, keeping in mind the research questions.

Qualitative responses were themed and categorized for analysis as well. These were charted and reviewed to determine patterns in responses, and to identify issues and trends. Data in each category will be interpreted using nominal and ordinal measures as well.

The only persons having access to identifiable information throughout the project was the researcher, the transcriptionist and my research supervisor, for the purpose of analyzing and verifying results.

#### ***4.4 Methods of Achieving Validity***

Before proceeding with the structured interviews with the sample group, the researcher conducted a pilot interview with other college personnel familiar with program review and evaluation processes to evaluate the validity of the questions and the proposed system-wide PPM to test their effectiveness to obtain required data.

## **5.0 DATA ANALYSIS AND RESULTS**

### ***5.1 Document Review: PQAPA Executive Summaries***

To inform our knowledge of the impact the PQAPA process has had on the colleges' quality assurance practices and processes, a review was conducted of the Executive Summary, (ES) of the Final Audit Report for each college. The review did not include the complete Final Report of the audit panel nor did it include the self-study reports and evidence prepared by each college as such an extensive review of PQAPA documentation was beyond the scope of this study. However, this suggests an area for possible further research, particularly, if there is interest to determine the degree of consistency of panel decisions and their recommendations. In the recent OCQAS Service Review: Self-Study Report (2010), an assessment of the PQAPA function was provided against the Committee of Presidents' "Guiding Principles." On the principle, "provides for consistency of panel decisions", it was noted that "Overall, the model and its implementation address this principle, and more work is required for the principle to be considered as being met" (OCQAS, 2010, p. 15).

A requirement of the Program Quality Assurance Process Audit is that the Executive Summary of the Final Audit Report be made public. This requirement is met with the ES being posted and available on the Ontario College Quality Assurance Service, (OCQAS) website, <http://www.ocqas.org/pqapa.html>. The Final Audit Report is a public document and belongs to the Management Board of the OCQAS as a whole, not to the Audit Panel or its individual members. The Panel acts on behalf of the Management Board, and it is the Management Board, not the Panel, that affirms the conclusions, supports the recommendations in the report, and issues the Final Report (OCQAS, 2009). The ES from each Final Audit Report remains posted on the website until the next audit is completed and the most recent ES is then posted.

Most colleges met the first four criteria; however, the majority of colleges encountered difficulty in providing sufficient evidence to meet criterion 5. Eight colleges, of the twenty audited "MET" criterion 5. The other twelve received a decision of "Partially Met" for this criterion. The "Not Met" decision was never indicated in any of the audited reports.

Twenty ES were reviewed for PQAPA audits which took place between 2007 and 2009. The focus of the review was to document what recommendations were given in the reports when the audit team decision resulted in a 'Partially Met' decision and, secondly, to document the reasons given when the decision for criteria 5 was 'Met'. Recommendations suggest actions the college should consider to address a 'partially met' or 'not met' decision on a criterion. Those recommendations that were related to criterion 5 were of interest to this study and are summarized in **Appendix D: Document Review: PQAPA EXECUTIVE SUMMARIES**. Unfortunately, the recommendations are not explicitly cross-referenced to a specific criterion, making the task of documenting those recommendations associated with Criteria 5 a time consuming and somewhat difficult process. This could be addressed, for future audits, by listing the recommendations by criterion which would provide greater clarity in the auditor's report. Another challenge experienced in this review, was that reasons for a 'met' decision in a criterion are not explicitly stated. The commendations offer general comments on the exemplar practices found within each college; however, it is a difficult to conclude how each commendation relates to the five criteria. This could be addressed, for future audits, by providing a statement of the evidence provided to the audit panel which supported their decision for each criterion. For this reason, it was not possible to document the reason(s) or the evidence which led to a 'Met' decision. Criterion 5 states, "regular program quality assessment that involves faculty, students, industry representatives, and others as appropriate for the purpose of continual improvement is in place and happens" (OCQAS, 2009, p. 7). It is clear that the eight colleges provided sufficient evidence for the above criterion to be met within their institutions. What is not clear, however, is what constituted that evidence.

Appendix D lists the recommendations provided to colleges who "Partially Met" criterion 5 which have been organized within the table by cross-referencing each recommendation against the three requirements (5.1, 5.2 and 5.3) for criterion 5. This listing is my own assessment of the 'best fit' between each recommendation and requirements 5.1, 5.2 and 5.3. However, the list is illustrative and offers some insight into the key themes and issues that have hindered colleges from meeting criterion 5 requirements. These key themes have been derived from the data in Appendix D, which have emerged from my review of the recommendations and are summarized below in **TABLE 4: Key Themes Derived from Criterion 5 "Partially Met" Recommendations**.

<b>TABLE 4: KEY THEMES DERIVED FROM CRITERION 5 “PARTIALLY MET” RECOMMENDATIONS</b>	
<b>Criterion 5 - Requirements</b>	<b>Key Themes Emerging From Recommendations</b>
<p><b>5.1</b> Need for the college to implement a program quality management system that identifies and rectifies weaknesses, and facilitates the evolution of the program to maintain its relevance.</p>	<ul style="list-style-type: none"> <li>• Develop a formal QA system and process</li> <li>• Leadership &amp; resourcing of QA functions</li> <li>• Communication and awareness of QA system &amp; process to internal and external stakeholders</li> <li>• Develop a QA system supported by QA policies and procedures</li> </ul>
<p>o Need for a process to review programs, courses, and academic standards</p>	<ul style="list-style-type: none"> <li>• Focus of review process is on quality issues</li> <li>• Improvements required to the current program review processes; formal and annual</li> <li>• A schedule exists for program reviews</li> <li>• Effective reporting mechanisms are in place for program review recommendations</li> <li>• Broader stakeholders input in review process, e.g. student, service groups</li> <li>• Ensure timeliness of review cycles, e.g. every 7 years too long</li> <li>• Ensure program review process is well documented and understood</li> <li>• <b>Effective coordination of annual reviews with formal review process</b></li> <li>• Provision of data to support timely review by program staff and requirements for data are reasonable and focused</li> </ul>
<p>o Need for a process to monitor improvement following review, and</p>	<ul style="list-style-type: none"> <li>• Clarify accountability structure for ensuring recommendations from reviews are considered and addressed in a timely</li> </ul>

Need for processes to ensure that recommendations arising from previous reviews have been considered and addressed.	<p>predictable manner</p> <ul style="list-style-type: none"> <li>• <b>An annual review process occurs and is effective</b></li> </ul>
o Need for a process to determine continuation or suspension of courses or programs;	<i>No recommendations linked to this requirement</i>
Need for a provision for the systematic measurement of indicators that program outcomes have been met;	<ul style="list-style-type: none"> <li>• <b>Annual reviews emphasis on quality assessment (e.g. KPI results, student feedback, support service effectiveness)</b></li> <li>• <b>Development of service standards and setting of benchmarks against which to measure review outcomes</b></li> <li>• <b>Formal mechanism to integrate various KPI data into formal review process</b></li> </ul>
Evidence that the views of learners, employers, professional and trade bodies, and academic communities are taken into account;	<ul style="list-style-type: none"> <li>• Formal and informal policy and procedures for student complaints and concerns to be heard and considered</li> </ul>
Evidence changes to programs and courses are managed to keep them current with provincial standards and relevant professional body requirements; and,	<ul style="list-style-type: none"> <li>• Adequate resources to allow programs and courses are current and meet standards</li> </ul>
<b>5.2</b> Documentation and other evidence arising from program quality management processes is maintained and used in on-going quality management.	<ul style="list-style-type: none"> <li>• Regular review of policies and procedures</li> <li>• Updated policies and procedures are time tagged to indicate dates, developed, revision, etc.</li> </ul>
<b>5.3</b> Graduates, employers, students, and other stakeholders indicate satisfaction with the program.	<i>No recommendations were linked to this requirement</i>

Although each of these themes is important for colleges to consider when evaluating their processes against criterion 5, the themes emphasized in **bold type** are of particular interest to this study. These themes point to the importance for colleges of the annual review process that “facilitates the evolution of the program to maintain its relevance’ and ‘continuous improvement.”



The key themes and phrases in the recommendations, which are related to an annual review process, are underlined:

- a. Effective coordination of annual reviews with the formal review process;
- b. An annual review process occurs and is effective;
- c. Annual review emphasis is on quality issues, (e.g. KPI results, student feedback, support service effectiveness);
- d. Development of service standards and setting benchmarks against which outcomes are measured; and,
- e. Formal mechanism to integrate various KPI data into formal review process.

These themes highlight (1) the need for evidence of a mechanism to ensure that an annual and structured process is in place to evaluate program quality and improvement between the formal program review cycles and (2) that the annual review and the formal review processes are coordinated with one another.

Two limitations of this document review are (1) that the ES for those colleges that “Met” criterion 5, do not comment specifically on what evidence was provided to support this decision and (2) to what extent a “met” decision is contingent on evidence that the college has an annual and structured process in place and is coordinated with the formal review process. Whether the eight colleges provided sufficient evidence is not in question. What is not clear is exactly what constituted this evidence.

## ***5.2 Document Review: Program Review and Program Performance Models in CAATs***

The next phase of the data collection required the collection of the current approaches used by Ontario colleges to measure program “quality” and to document the performance characteristics being measured and the performance indicators selected for this purpose. An invitation to participate in the study was extended to the 24 college VPAs by the Manager of the Ontario Colleges Quality Assurance Services, Tim Klassen. The response to the invitation was met with significant interest and support, and in total 22 colleges expressed their willingness to be involved in the study and completed the Participant Consent Form (**Appendix B**). Each college designates an individual within their college who is responsible for liaison with OCAQS and issues related to PQAPA. A list of the College PQAPA Contacts is available on the OCQAS website. Following receipt of the signed consent form, each College PQAPA Contact

was asked to provide an electronic copy of comprehensive and annual program review policies and procedures (i.e. handbooks, user guides) and a sample of the annual program performance tool if one was available. As well, a brief phone meeting was arranged with each contact to discuss and clarify any questions arising from review of their colleges' documentation. An extensive database has been developed which includes the above-mentioned documents for 21 of the 22 colleges who consented to the study. One college failed to follow through with the request and did not provide the documentation.

This section will provide a description of the current practices utilized in the comprehensive program review process and a description of the approaches to annual review of programs.

### **5.2.1 Comprehensive Program Review**

The comprehensive program review process in the colleges goes by a number of different names, such as Comprehensive Program Review or Program Review, Program Renewal or Program Renewal Process, Detailed Program Assessment, Program Revitalization Review, Academic Program Review, Program Quality Review and Cyclical Program Quality Review.

These are characterized as a formal review process requiring considerable data collection and review usually in the form of a self-study with consultation with stakeholders (internal, external or both). Some have included an external audit component of the program to increase the objectivity and rigor of the process in an effort to ensure the process leads to continuous improvement. The frequency of the review also varies across the colleges. Most are on a 5 year cycle, 2 are on a 6 year cycle, 3 are on a 5 to 7 year cycle, 1 is on a 7-10 year cycle and 2 are using a 3 year cycle. The colleges using a cycle longer than every five years indicate this is mainly due to the volume of programs which requires a longer schedule to get all programs through the process. An interesting approach adopted by one of the colleges using a 3 year cycle is that the review is conducted at the school level. The advantage of such an approach is the whole program mix within an academic school can be reviewed and evaluated at one time to facilitate planning related to the entire program mix. However, the disadvantage is that this approach does not allow for an in-depth review of the individual programs.

A number of colleges have incorporated a thorough and structured curriculum review component into the program review or have adopted a formal annual curriculum review process. Both approaches have elevated the importance of curriculum mapping, review of program standards, course outlines, student feedback and evaluation, and teaching and learning practices. A few colleges have developed detailed curriculum review

handbooks or manuals to guide this process and have also developed templates to formally document this process.

The focus of this study is on what process is in place between program reviews to monitor and evaluate program performance. In this regard, the majority of colleges studied have an interim process in place for doing this. However the approaches vary considerably. These processes are discussed in the next section.

### **5.2.2 Interim Program Review Processes**

Processes to monitor and evaluate program performance ranged from formal to informal. Informal review usually asks each academic team to informally review their curriculum, student feedback on teaching and the provincial program KPI data to inform annual program and curriculum adjustments. A formal report is not required and the process used to do this is usually not formally documented. However, the data collected in this study indicates that the informal approach is the exception. Most colleges, 18 of the 21 studied, have implemented a formal interim program review process. However, as noted above, these approaches vary considerably.

These reviews took the form of primarily being annual with one college using a biennial process and another using a three- year interim program report process. What is important and different about the interim review process is that all programs are reported on annually, compared to the periodic cyclical nature of the comprehensive review process. This interim or annual process provides a lens for institutions to examine all programs at the same time, using a consistent process, to gain different perspectives, including the program, school/ divisional and institutional levels on the relative quality and strength of their programs, academic units and the institution at large.

The interim processes could be categorized into two general groups, those that were mainly qualitative in nature and those that were mainly quantitative. The qualitative tools consisted of checklists, questionnaires, and program quality portfolios or follow-up reports. These were designed as an annual self-assessment completed by program personnel or the academic manager and are often submitted to the Dean for review and follow-up. Usually, the purpose of the annual tools using a qualitative approach is to demonstrate how PQAPA criteria are being met and also how recommendations from the previous comprehensive review have been addressed. In fact some of these tools have been modeled on the five PQAPA criteria. The process is intended to provide a follow up reporting mechanism to the last comprehensive program review. It is important that such a mechanism exist, as far too often program reviews are time-consuming and resource-intensive and yet often fail to bring about neither the recommended actions nor lead to continuous improvement. Rather the program review

process can lead to defending the status quo if the proper feedback/accountability loop is not established between the comprehensive review process and the annual review process. Seven of the colleges in this study fell into the qualitative group. Two colleges in this group have adopted an annual curriculum review process, as the basis of their interim review process, which is formally documented on a curriculum renewal template. After a review of the descriptions provided, the qualitative processes appear to emphasize the importance of continuous improvement, curriculum renewal and a focus on teaching and learning excellence and innovations. The next section discusses the quantitative approaches used by the other eleven colleges.

The quantitative tools consist of four basic styles: Performance Indicators Reports (PIR), Report Card, Balance Scorecard, and Performance Matrix. A brief description is given of each.

The performance indicator report may include indicators derived from the provincial Key Performance Indicators (KPIs) alone or may also include other performance indicators such as financial, enrolment, student progression through the program and teaching effectiveness. The provincial KPIs reported by program commonly included graduation rate, graduate satisfaction, graduate employment and student satisfaction. PIR usually reports on each indicator showing performance over multiple years such as two, three, five or even nine years of trended data. The reports are very good at providing historical information. Some colleges have included comparator data for benchmarking purposes for each indicator. Some examples include the overall college mean score, the provincial mean or the mean for comparator programs at other colleges. Some colleges have defined expected performance targets based on established benchmarks.

The report card similarly uses performance indicators based on provincial KPIs and usually includes other characteristics of performance, such as those described above. The report cards go one step further than the performance indicator reports and have developed a scoring methodology which assigns points or a rating system based on the performance to expected targets and then these points are totaled to assign the program an overall score or grade. The score or grade creates a method of flagging programs that are not doing well and then focus the attention of academic managers where it is most needed. Often the problem may be with the data collection or reporting methods rather than poor program performance, and this flagging ensures that the data for these programs are carefully reviewed to correct such issues after more examination of the data has occurred.

The balanced scorecard is well known in business as well as public institutions such as hospitals. Recently, educational institutions have adapted the tool to report on how well the institution is meeting its overall mission and strategic goals. The balanced scorecard

is described as a strategic performance management tool. Its core characteristics are that it offers the presentation of a mixture of financial and non-financial measures each compared to a 'target' value within a single concise report. The initial design of the balanced scorecard consisted of four categories, three categories on non-financial measures in addition to financial outputs – those of "Customer," "Internal Business Processes" and "Learning and Growth." Since these categories or "perspectives" were not as relevant to non-profits or units within complex organizations, many modified the categories to fit their needs. But the basic premise for the balanced scorecard design is to identify a small number (5 or 6) of financial and non-financial measures for each perspective and attach targets to them, so that when they are reviewed it is possible to determine whether current performance 'meets' expectations.

Two colleges use this approach for their interim program review process. One college has identified the four perspectives as Accountability, Excellence, Innovation and Learning, and Financial. Each perspective has been defined by including strategic goal statements, and the indicators, their measurement, a range of targets for each indicator, the data source, available date and reporting year are given. The scorecard is reported every third year, and all programs receive a rating calculated on the basis of the results of the Balanced Scorecard. This college uses a ratings system for each indicator in each section of the scorecard, i.e. a rating of either **AA** (Above Average), **A** (Average) or **BA** (Below Average) is assigned based on target/benchmark performance. The overall quadrant rating is calculated as follows: AA  $\geq$  90% of indicators are A or AA, A = 60-89% of indicators are A or AA and BA = < 60% of indicators of A or AA. The other college using a Balanced Scorecard has defined the four perspectives as Customer Connectivity, Internal Process Efficiency and Effectiveness, Individual and Group Innovation and Learning, and Financial. The scorecard, however, does not include a strategic goal statement for each perspective, and it does not indicate targets against established benchmarks for each of the indicators.

The fourth approach is the use of a performance matrix model. One college is currently piloting this so that specific details could not be provided. However, the concept is the matrix consists of two categories of indicators, one a set of quality indicators and the other is a set of growth criteria. Quality is plotted along the vertical axis and growth is plotted along the horizontal axis. Programs are scored using a point system on each of the indicators and then mapped on the quality/growth matrix. This approach is based on the Ansoff Product-Market Growth Matrix, which is a marketing tool created by Igor Ansoff and first published in his article "Strategies for Diversification" in the Harvard Business Review (1957). The emphasis on this approach is to inform decisions related to "program mix" and strategic enrolment planning. This approach is also used by another college every 3-4 years as part of its strategic planning process. The process is called "Portfolio Analysis Process." This college also employs an annual program review

process using a set of nine quality and performance indicators as their annual program evaluation and management process. Their matrix is similar to the one just described above, as it consists of a demand vs. quality axis. A matrix is generated for each academic school and the following are considered in the process of reviewing college programs: quality, applicant and employment trends, and efficiency. Academic areas also consider efficiency by looking at contribution margins and the type and amount of future space required for their programs. Each program within the school is plotted on the same matrix and depending on where a program fits on the matrix determines which programs to fix, grow, maintain or shrink within the school.

All of the college models were carefully reviewed and an index was built listing all of the characteristics of performance currently being measured. These characteristics of performance were arranged within categories and grouped as follows: Financial, Customer, Internal Business Processes, Learning and Growth, and Social Responsibility. The college models provided several indicators, many common across colleges for each of these categories, with the exception of the social responsibility category. For this category, the Multi-Year Accountability Agreements (MYAA), publicly available on each college's website was reviewed to determine what priorities were identified by the Ministry of Training, Colleges and Universities for college programs. Today many organizations establish performance indicators related to social responsibility. Given the commonly accepted mandate of colleges to provide economic and social value to their communities, defining what should be measured in the area of social responsibility offers a future area for further investigation and research. The MYAAs do provide a good starting point in this regard. For example, access is identified as an important Ministry priority, and specifically improving the participation rates of under-represented groups' may be one strategic area where program performance could be measured.

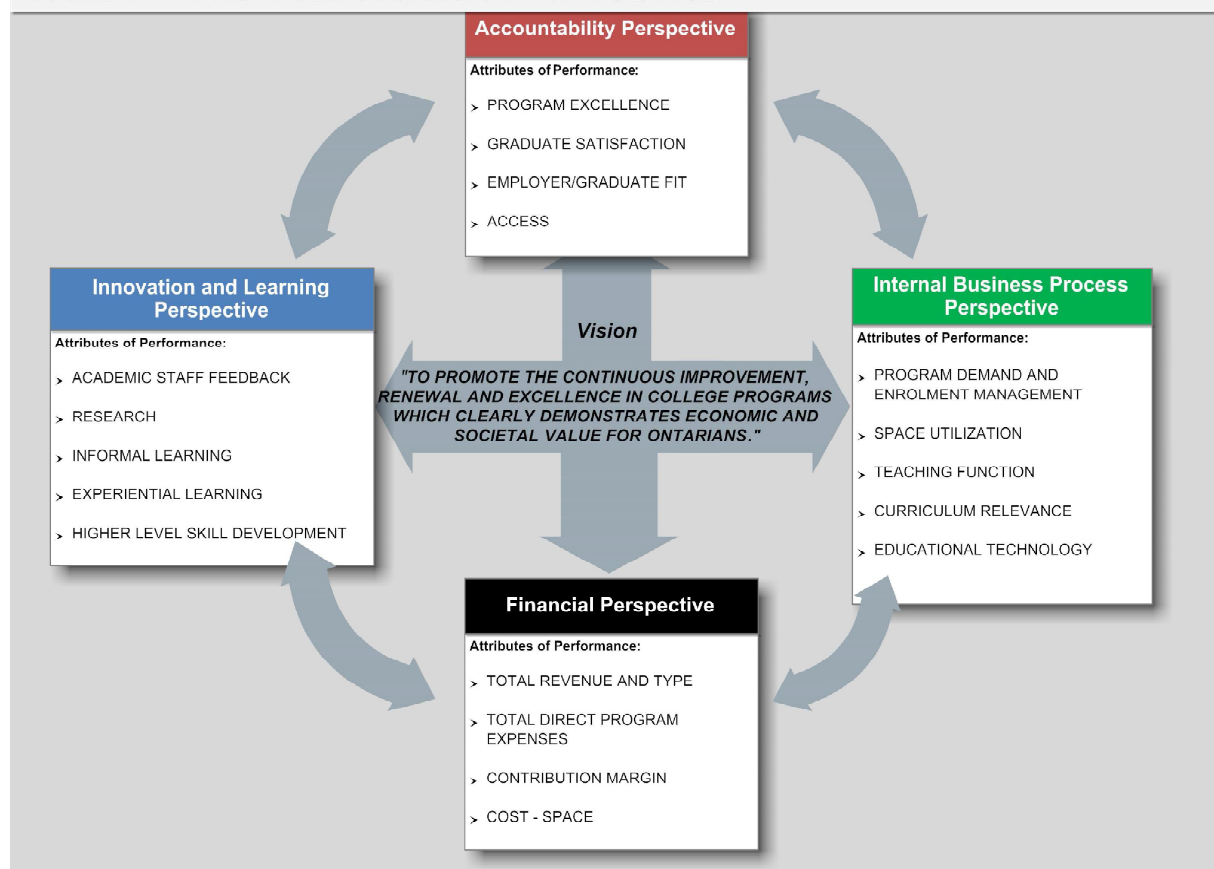
From these various approaches to program evaluation considerable information was available on which the proposed scorecard was conceptualized. The third objective of this study was building on current practices in Ontario colleges and elsewhere, to develop and propose a standardized Program Performance Model that provides a framework for a balanced, consistent and comparative systems approach to program evaluation for the Ontario public college system. The next section presents and discusses the proposed model.

### ***5.3 Proposed Program Scorecard***

The central objective of this study was to propose a program performance evaluation model that could offer a framework for a balanced, consistent and comparative systems

approach to program evaluation across Ontario's public colleges. However, the framework could have application to other colleges and to the post-secondary sector in Canada. The initial version for a proposed scorecard suggested five performance categories: Accountability, Program Excellence, Internal Business Processes, Innovation and Learning, and Financial. To validate the model, a group of college personnel with various areas of expertise were consulted, such as institutional research, curriculum design, program quality, program review and development, strategic enrolment planning, applied research and innovation. In addition, feedback was provided by Tim Klassen, Manager, OCQAS who could provide unique input to the model based on his involvement with the Credential Validation Services and, in particular, the Program Quality Assurance Process Audit functions. Input and advice was also offered by Dr. Arnold Love, as research supervisor for this Applied Project. Dr. Love has extensive knowledge and expertise in the field of internal program evaluation within business and the public sectors.

This feedback was incorporated into the model which reduced the performance categories from five down to four: Accountability, Internal Business Processes, Innovation and Learning, and Financial. The key modification was to remove program excellence as a separate category and to include program excellence as one of the 'Attributes of Performance' under the accountability category. This thinking seemed intuitive to those consulted above because program excellence is an expected outcome of college programs in Ontario and most stakeholders see program excellence as an accountability issue. **Figure 1: Proposed Scorecard At A Glance, page 39**, provides a high level visual of the proposed scorecard. The model places each category or perspective on a balanced scorecard framework. Each category in the model is referred to as a "perspective," and included in each perspective are the main areas of measurement referred to in the model as the "Attributes of Performance." For example, within the Accountability Perspective there are four main attributes of performance suggested: program excellence, graduate satisfaction, employer/graduate fit and access. Under the Internal Business Process perspective five attributes of performance are proposed: program demand and enrollment management, space utilization, teaching function, curriculum relevance and educational technology. The attributes proposed for innovation and learning include academic staff feedback, research, informal learning, experiential learning and higher level skill development. Finally, the attributes related to the financial perspective are total revenue and type, total direct program expenses, contribution margin and cost of space.

**FIGURE 1: PROPOSED SCORECARD AT A GLANCE**

Each perspective is considered of equal importance and is given equal weight in the scoring of overall program performance. The accountability perspective is positioned opposite the financial perspective to convey the importance that these perspectives be balanced when program performance is being measured. Similarly the internal business processes and innovation and learning are positioned opposite to convey the importance of investing in innovation and learning in order to achieve the desired results in efficiency and effectiveness. The centre of the model provides the vision statement which should reflect the purpose of the tool; in this case, the proposed purpose is "To promote the continuous improvement, renewal and excellence in college programs which clearly demonstrates economic and societal value for Ontarians."

**Figure 2: Proposed Indicators At A Glance**, pages 41 and 42, includes suggested performance indicators for each of the attributes of performance within each perspective. The number of indicators in each perspective provides a comprehensive list for illustrative purposes to present the possible range of indicators which in practice would be pared down to one or two key performance indicators to measure each of the attributes of performance. This is the challenge at hand, to select those indicators that



represent the best indicators of measurement and are agreed to be the most important by the users of the scorecard. Figure 2, includes a goal statement for each perspective, which are given below. Each goal statement communicates the general intent for all college programs as it relates to each perspective. They are:

<i>Accountability Perspective:</i>	<i>To provide access and a learning experience that has met the expectations of our students, graduates, employers and other stakeholder.</i>
<i>Internal Business Process Perspective:</i>	<i>To employ processes that promote continuous renewal and development of college programs, student satisfaction and the effective use of college resources and services.</i>
<i>Innovation and Learning:</i>	<i>To foster a culture of life-long learning, inquiry and innovation in all college programs.</i>
<i>Financial Perspective:</i>	<i>To ensure that college programs remain viable and financially sound.</i>

Below each goal statement is an area where specific strategies can be indicated. This area has purposely been left blank as these strategies would normally be determined and reviewed annually by the college. After the strategic goals for each perspective are agreed upon, the specific performance indicators would be derived from these. The model gives each attribute of performance on the left and the corresponding suggested performance indicators on the right. Figure 2 does not provide details related to the specific measurement for each of the performance indicators, in order to keep the information to a minimum. This information is provided in **Attachment 1: Detailed Version - Proposed College Provincial Program Performance Scorecard (pages A1 – A17)**. The detailed version includes, suggested measurement, benchmarks, targets, data sources and reporting year(s) for each performance indicator. Also proposed in the detailed version is a method for the calculation of the overall score for each perspective, which is then used to achieve a score out of 25% in each perspective, and combined for a final total score out of 100%. An overall program standing is suggested, which helps to sort programs into one of three groups: Program of Merit, Tier 1 Program and Tier 2 Program. The suggested program standings offer criteria for each.

**FIGURE 2: PROPOSED INDICATORS AT A GLANCE**

<b>Accountability Perspective</b>	
<i>To provide access and a learning experience that has met the expectations of our students, graduates, employers and other stakeholders.</i>	
Strategic goals	
To be defined by the program.	
Attributes of Performance	Performance Indicator
Program Excellence	1.1.1 Graduation Rate 1.1.2 Retention Rate 1.1.3 Satisfaction with Teaching 1.1.4 Satisfaction with Essential Skills Development 1.1.5 Achievement on Learning Outcomes 1.1.6 Pass Rate on Professional Examinations 1.1.7 Program Accreditation Standing
Graduate Satisfaction	1.2 Graduate Outcome/Satisfaction Survey
Employer/Graduate Fit	1.3.1 Employer Satisfaction Survey 1.3.2 Graduate Employment Rate 1.3.3 Graduate Employment Rate - Full-time Program Related
Access	Participation Rates: 1.4.1.1 Aboriginal 1.4.1.2 Students with Disabilities 1.4.1.3 First Generation 1.4.1.4 Immigrant 1.4.1.5 Mature 1.4.2 Turnaways 1.4.3 Accessibility

<b>Internal Business Process Perspective</b>	
<i>To employ processes that promotes continuous renewal and development of college programs, student satisfaction and the effective use of college resources and services.</i>	
Strategic goals	
To be defined by the program.	
Attributes of Performance	Performance Indicators
Program Demand and Enrolment Management	2.1.1 Registrant to Applicant Conversion Rate 2.1.2 Met Planned Enrolment Targets
Space Utilization	2.2 Space Utilization Rate
Teaching Function	2.3.1 Student/Staff Ratios
Curriculum Relevance	2.4.1 Student Feedback 2.4.2 Advisory Committee Member Feedback
Educational Technology	2.5.1 Learning Management System 2.5.2 Simulation Software 2.5.3 E-learning

<b>Innovation and Learning Perspective</b> <i>To foster a culture of life-long learning, inquiry and innovation in all college programs.</i>	
Strategic goals	
To be defined by the program.	
Attributes of Performance	Performance Indicators
Academic Staff Feedback	Academic Staff Satisfaction with: 3.1.1 With Their Work, the Educational Environment and Resources 3.1.2 Engagement and Professional Development 3.1.3 Overall with Students, Program and School.
Research	3.2.1 Research Participation Rates By Program. 3.2.2 Number of research proposals submitted. 3.2.3 Number of research proposals funded.
Informal Learning - Students	3.3.1 Number Involved in Community Projects 3.3.2 Number Involved in Competitions 3.3.3 Number included in Faculty Research
Informal Learning - Academic Staff	3.3.4 Number of Projects initiated by Academic Staff 3.3.5 Number of Academic Staff Involved in Projects
Formal - Experiential Learning	Student Satisfaction with: 3.4.1 Lab/Shop Learning 3.4.2 Field work, clinical experiences, and co-op work terms
Higher Level - Skill Development	Development of skills in Critical Thinking, Problem Solving, Research and Analysis, Teamwork, Creative and Innovative, and Adaptable. 3.5.1 Graduate Satisfaction 3.5.2 Employer Satisfaction

<b>Financial Perspective</b> <i>To ensure that college program remains viable and financially sound.</i>	
Strategic goals	
To be defined by the program.	
Attributes of Performance	Performance Indicator
Total Gross Revenue And Type	4.1.1 Total Gross Program Revenue 4.1.2 Tuition Rates 4.1.3 Revenue Per Student Full Time Equivalent (FTE)
Total Program Expenses	4.2.1 Total Direct Costs 4.2.2 Expenses Per Student FTE
Contribution Margin	4.3.1 Gross Dollar Contribution 4.3.2 Percentage Gross Contribution Margin
Cost - Space	4.4 Total Program Space Costs

The final objective was to interview six VPAs to determine their perceived satisfaction with the current practice of program evaluation at their college and their perceived support for the adoption and use of the proposed scorecard. The feedback collected through the semi-structured interviews is discussed in the next section.

#### **5.4 Feedback on Proposed Program Scorecard**

Six VPAs were invited to participate in this study, representing three colleges who had participated in the pilot round of PQAPAs (between May and September 2006) and three colleges that participated in the subsequent rounds of audits between 2007-2008 and 2008-2009 (OCQAS, 2009). Three colleges were selected from the group that “Met” Criterion 5 and the other three were selected from the group of colleges that “Partially Met” this criterion. These six colleges also provide geographical representation from all regions of Ontario, as well as a cross section of urban-rural and large-medium-small colleges. All six of the VPAs provided responses in person or by telephone directly to the researcher. All participants provided signed participant consent forms. The interview process included 22 questions delivered in a semi-structured format (**Appendix F**). Some of the questions requested a scale response; however, all of the questions solicited a qualitative response. Interview questions were grouped in three sections and responses were analyzed below. Data from the interviews was classified as “all” when all 6 colleges were represented. “Most” was used for 4-5 colleges with similar responses, and “some” or “half” represented 2 or 3 colleges in the group with similar answers.

##### **5.4.1 Impact of the Quality Audit**

The first section of the interview confirmed the time spent by the VPAs with the proposed scorecard prior to the interview, their role at their college at the time of the quality audit, and their perception of the impact the audit process on the quality assurance practices in their college. Each VPA was provided with three one page documents which presented the proposed model: (1) Figure 1: Scorecard at a glance, (2) Figure 2: Indicators at a glance and (3) Figure 3: Data sources at a glance, and a list of the topics/questions that would be explored in the interview. VPAs were invited to review the proposed model and to reflect on the topics/questions in advance of the interview. Most (n=5) indicated that they had been able to review the materials prior to the interview. It is also of interest to note that three were new to their positions since the quality audit occurred at their respective colleges. One held a senior position with

their college at the time of the audit, but at another campus, and was not directly involved with the process.

Although not involved directly with the quality audits at their colleges, all the new VPAs, felt able to respond to the question, "Can you provide a brief description of the impact the PQAPA process has had on the quality assurance practices in their college?" The main themes which arose were that the process was affirming, that it provided an opportunity for self reflection and self assessment, and that it offered useful recommendations which led to meaningful improvements. Half (n=3) thought the audit process was a validation and an affirmation that the QA processes in their colleges were sound and could meet the test of evaluation by an external body. The process was seen as largely reinforcing and positive in this regard. One VPA indicated that the greatest impact was that the process necessitated "self reflection" and "self assessment" to ask if the right measurement tools were in place, and indicated that the audit provided the impetus for them to modify and enhance the previous program renewal model, and to put into place best practices.

Half (n=3) commented on the recommendations resulting from the audit with such phrases as "significant recommendations for improvement" and "excellent". In contrast, one new VPA expressed some concern that the audit had the effect of creating a sense of complacency, whereby attention had not been paid to the recommendations from the audit prior to the VPAs arrival to the college. Some (n=2) VPAs commented that the audit process provided the "leverage" within the institution to make "Quality" processes a priority and made the requirements as defined by the PQAPA process necessary rather than being regarded as "nice to have." In two colleges the audit created the immediate need to review and revise processes and policies, which would provide more consistent and more systematic operations. Two VPAs noted that the audit process had brought the college community together and had a positive impact on moral and on staff involvement in the entire program review policy and process. The above findings seem to correlate well with those of Linda Saari's 2009 study on the impact of the PQAPA process in Ontario colleges. Saari (2009) concludes from the interviews with sixteen VPAs that three themes emerged in virtually every college's responses: the value in self reflection, the power of feedback through confirmation and affirmation by the audit panel, and the usefulness of the constructive feedback from the panel recommendations.

One VPA commented on the apparent disconnect between government and the CAATS, specifically the expectation by government that colleges absorb the financial impact of these audits and their requirements without any further government financial support to offset these costs. This appears to be a valid concern confirmed by the recent environmental scan release by Colleges Ontario. The report indicates Ontario

colleges continue to rank below universities and secondary schools on a funding per student basis. Interprovincial comparisons per student revenues from operating grants and tuition fees (\$8,159) for Ontario colleges continue to be the lowest among all provinces in Canada. Funding in Ontario was 43 per cent lower than that in Saskatchewan, the province with the highest level of per student funding (\$14,406) (Ontario Colleges, 2009). The report noted that in real terms, college revenues are still significantly lower than they were in the late 1980s and the early 1990s when the impact of inflation on college revenues is considered. It appears the colleges have developed the best accountability models given their financial constraints under the current funding model.

#### **5.4.2 Perceptions of Program Evaluation Approaches**

The second portion of the interview focused on the VPAs' perceptions of the program evaluation approach used within their college. Specifically, this study examined their level of satisfaction with the current approach and what types of management decisions are informed by this approach. Another area of interest related to what extent the views of key stakeholders, such as student, graduates, etc. are reflected in this approach, and does the approach allow for objective measurement of performance while indicating benchmarks for expected performance.

The VPAs were asked to indicate their perception of how satisfactory the program evaluation approach is using a five item scale: very satisfactory, satisfactory, unsatisfactory, very unsatisfactory and don't know. The question relates to the program evaluation approach used between comprehensive program reviews. Qualitative responses were also given to offer more depth and understandings regarding which elements are perceived as desirable in a program evaluation model. There was general agreement that most (n=5) of the colleges ranked the program evaluation model as very satisfactory or satisfactory. These colleges were all using a quantitative model. One college used a balanced scorecard, one used a report card and three others used a performance indicator report. The college using a qualitative approach used an annual school level self-reporting checklist and indicated the tool was too new to determine its usefulness.

The qualitative responses indicated a range of desirable elements in the college models: serving as a quantitative tool compared to the qualitative nature of the comprehensive review process; serving as a very effective flagging system which can quickly convey a program's "soft spots"; focusing attention on the programs that need it the most; functioning as a simple and easy tool for board and committee members to understand and use to exercise their accountability in a reasonably creditable way; a low cost; including a range of indicators; and providing crucial function to trend program

performance – which increases confidence in data. One VPA noted that their model was sound, as it was not too exhaustive such as the model being proposed. This VPA also thought satisfaction was strong with their model as it had passed the test with PQAPA and had the respect of the Deans, Center for Teaching and Learning staff, college executive and Board.

Responses to the type of management decision that are informed by the evaluation models showed considerable similarity. Most responses identified the following decisions being informed by their evaluation model: program mix, enrolment planning, suspensions, cancelations, prioritization of investments and actions, adjustments to resources and staffing, workload allocations, resourcing for student support services, adjustments/prioritization of programs on review schedule, and problem identification.

One college pointed out that the value of the model at their college is that it demonstrates evidence-based decision making and noted that the inclusion of data from the faculty feedback survey was an important piece that was missing from the previous process. This VPA noted that the majority of feedback from the faculty survey provided their college with very good objective feedback around the issue of support and resources to the whole teaching process.

On the question “Are all key stakeholder views reflected in the program evaluation approach?” most (n=5) believed they were. However, qualitative responses indicated some potential gaps, such as program advisory committee input, student services input, financial input, and academic staff input. Advisory committee input was seen to be important to offer external validation of program and curriculum relevance; however, it was noted that although this input is desirable there would be many practical challenges in obtaining good data. Another concern raised by one of the VPAs, whose college used a self-audit approach, was the issue of the process the college uses to getting stakeholder input. This VPA noted that since faculty collects the input they cannot help but have a mental filter. Therefore, the collection of input needs to be at arm’s-length to ensure some degree of validity and objectivity to the data collection process.

The last question in this section asked “To what extent the program evaluation approach allows for the objective measurement of performance and offers benchmarks for the expected performance.” The spread on the responses to this question was more significant. One college indicated “strongly agreed,” three indicated “agreed” and two indicated “disagreed.” A range of viewpoints were expressed representing the complexity associated with most attempts to measure complex systems. In regards to the first part of this question “does the program evaluation approach allow for the objective measurement of performance?” all (n=6) agreed that the measurement provided by their tools, although not truly objective or accurate, offers a mechanism to

flag problems which then can lead to further analysis and clarification. It was pointed out by one college that when using indicators that rely mainly on data based on people's perceptions, such as the faculty feedback or student satisfaction survey data, such data can never be viewed as truly objective. However, this qualitative feedback is representative of people's experiences and therefore very informative. When taken together with other quantitative measures, such as financial, enrolments, etc., the system "works." Many of the measures are indirect measures of the performance indicators in question, such as student satisfaction with feedback is an indirect measure of the perceived quality of the feedback provided by the teaching faculty.

It was noted by some of the colleges that many of the indicators, such as KPI indicators, are used because this is data that is available and understood at the system level. However, these are not necessarily the preferred or best indicators. It was noted that a limiting factor is investing institutional resources to develop, maintain and report on sets of data and benchmarks.

For example, the calculation for graduation rate is taken as twice the program length, resulting in data being reported which is not reflective of the most recent graduating class but representing the graduating class from as far back as two, four or six years depending on the program length. Some concern expressed with graduation rate and other indicators, such as retention or completion rates, are based on the assumptions made to define these measurements. As a system these are contentious indicators because they can be defined differently depending on the program type and the make-up of students enrolled in a program. There was agreement that there was room for improvement to refine these measures, possibly by adopting a range of definitions for retention, completion rate and graduation rate that can be applied to the spectrum of programming types offered by colleges. More exploration is needed to create assumptions and definitions associated with these indicators that reflect today's diverse programming and student population and to ensure that the systems needed for the collection of this data are available.

The paper by Arthur Donner and Fred Lazar on "Measuring Graduation and Attrition at Ontario Colleges: A discussion of measurement issues and their usefulness as indicators of student success" (2000) suggests that a "College Student Identifier Number" be adopted in the colleges which would allow for the tracking of individual students moving between programs within a college as well as moving from one institution to another. Such a system would allow for individual student tracking across the entire post-secondary education/training system in the province, which is a preferred long-term model to collect retention, completion and graduation rate data (Arthur Donner Consultants, 2000). The paper discusses the limitations to the current method used in colleges, which is the cohort tracking system, and points out that the current



system are inappropriate and produces graduation rates that are too low because they use too early a starting point for most programs, but more critically, too early an end point. They recommend that the starting point begin after the first semester following the entry of a student into a program. This will exclude those students who are uncertain about whether or not they made the right decision to go to College and about whether they selected the right program. They further recommend that the end point be at least 150% of the time period for completing a program (based on the official US NCES norm) – 4.5 years for a three-year program; three years for a two-year program and 1.5 years for a one-year program. They also suggest that feeder and remedial programs should be excluded from the graduation rate calculations. They point to the need for further research, and suggest a number of small pilot studies, to inform the investigation of better definition and measurement for graduation rates, as expressed in the following quote:

The MTCU should not rush out to create a new system that might be too costly and/or produce marginally better estimates of graduation rates and other measures of student success. There is a need to experiment to find the most appropriate measurement methodology. MTCU should also examine the feasibility and costs of moving towards provincial student numbers and province-wide tracking of students. (Arthur Donner Consultants, 2000, p. 40)

The second half of the question asked if the program evaluation approach offers benchmarks for the expected performance. Half (n=3) of the college models include benchmarks for expected performance. In fact, one college has developed a new approach to reporting and analyzing KPI data that indicates a number of comparator benchmarks for each KPI indicator reported. The statistical analysis of KPIs includes a historical overview over the last five years, a comparative system average with similar programs, a comparative college average with colleges having a similar program and a calculated difference between the college and the system score at the program level as well as the CAAT level (all programs combined). The benchmark GAP is defined as the Program Variance minus the College Variance. If the GAP is less than zero, a targeted increase of 3% increments per year will be required until the GAP is zero. The other colleges that disagreed with the above question indicated this was because their models do not include a system for the identification of benchmarks.

### **5.4.3 Feedback on the Proposed Program Scorecard**

The final part of the interview process explored the views and desire for the use of a common program evaluation model for use across the college system. Opinions were sought regarding the benefits and problems with such an approach. Feedback was

invited on the proposed scorecard and its components, and each respondent was asked what might be the next steps in moving such an initiative forward. Finally, general comments and questions were invited on the proposed model and on this study in general.

While most (n=4) colleges agreed with the “concept” of a common program evaluation model for use across the 24 colleges, a number of concerns and cautions were also raised. The scale responses reflect the wide variation: one strongly agreed, three agreed and two disagreed. All colleges agreed with the concept of establishing a common set of core indicators across the system for program evaluation. There was also full agreement with development of a common vision and goal statements and the identification of a common set of perspectives from which to derive the attributes of performance and the subsequent core set of performance indicators. One college agreed it’s good to have a common measurement across all colleges and across all programs. However, there may be some exceptions, such as those programs that are subject to external accreditation. This would most likely need to be reviewed on a case-by-case basis, but the concern raised here is the additional evaluation burden another evaluation process would place on faculty already subject to external evaluation and other current internal review processes. Caution was also expressed by one college that care must be taken to ensure the indicators chosen to measure “quality” actually measure quality in the way that it was intended.

Disagreement was expressed by some (n=2) VPAs around the issue of benchmarking and establishing targets at or for the system. The concerns expressed here were mainly twofold. First, the considerable differentiation and variations across the system could lead to unfair and unintended bias in the results. The second concern is based on a philosophical view of colleges and institutional autonomy. One VPA expressed this sentiment this way:

I just think to have a standardized system level model that has system benchmarks is contradictory to a philosophy that says, the authority and the commensurate responsibility and accountability for programming decisions has been pushed now to the college level. (VPA from an Ontario College, with permission)

Certainly, a system level model must adequately compensate for the variations across the colleges when reporting on performance. These are questions of implementation and how it is done which were beyond the scope of this study. However, there are examples that can inform and guide this discussion if there is the will to do so within the colleges and the system.

The framework and modeling approach described by Finnie and Usher (2005) suggests how the framework can be applied to take into consideration institutional differences and types, which are factored into any general analysis (e.g. allowing for certain institution-specific effects). The framework is described in this study in Section 3.2, pages 19 and 20. As noted previously, the authors describe this framework as generic and it can be applied to any sector of postsecondary education – college and university. Essentially, they propose that if all of the variation in students' beginning characteristics, all inputs, and outcomes were perfectly defined and measured, institutional effects would go to zero, since institutions can really be thought of as simply a specific bundling of inputs. This suggests an area for further study in the college sector, such as a study that uses the framework proposed by Finnie et al. (2005) and applies this framework to the evaluation of college programs using a core set of system-level performance indicators. One college indicated they would like to see a hybrid model that identified a core set of performance attributes and indicators but allowed for college-specific or institutionally-specific components as a better way. For example, the performance attributes, indicators and measures would be defined for the system and collected by the system. However, colleges would define the evaluation parameters for their programs, such as the comparator benchmarks and the required targets of expected performance. One college commented further on the issue of benchmarking, indicating this should be derived by the institution, locally, to reflect institutional goals, priorities and context.

Lastly, while one VPA could agree that while a common program evaluation model was a very good thing in theory, that VPA raised concern for the cost to the system to implement such a model. Specifically, could we afford to do this and do we have the capacity to implement such a system? These are valid questions. Any proposed system model will require further study and consultation to provide a thorough review of the costing and resource issues.

Each VPA was asked "In your view, what benefits do you see with this approach for the college system?" Some benefits suggested were:

- It allows for comparative analysis (n=1);
- It improves evaluation by bodies such as PQAPA and by MTCU (n=3);
- It provides a consistent evaluation of programs across the system (n=3); and,
- it could offer a more efficient process if colleges collaborated to develop and use a common model and the sharing of best practices by college (n=1).

The group clearly could see the benefit of such an approach to MTCU and to students as well. For MTCU, the approach gives the Ministry a broader perspective on what's going on across the entire system and provides a mechanism for ensuring system-wide accountability. Another advantage is that it makes it easier for MTCU to obtain good information and to help the Ministry with communication about the value of the system to the people of Ontario. One VPA expressed the benefit to the system this way:

In very short terms, standardization of assessment both in terms of the criteria, the process and the metrics and all the rest of that is in my view inherently a good thing. It brings you to common language. It brings you to common methodology or at least the likely-hood of common methodology. It brings you to prominent interpretation and so the degree to which something that can be as subjective and abused a term as program quality, becomes meaningful or at least becomes, in my view, substantially more meaningful, once you have moved it into a form or substance that is common across colleges. (VPA from an Ontario College, with permission)

Maybe the most compelling benefit of a common approach was the comment by one VPA on the potential for this to facilitate the recognition of programs across the colleges, and the potential to facilitate greater student credit and transfer than is currently happening across the system. This VPA noted that a common evaluation system puts programs on an equal footing and helps to formally recognize and communicate similarities across like programs, such as quality. This person observed that the lack of recognition for a similar program taken at another college was a huge problem for our students and our system.

When asked "In your view, what problems or concerns do you have with this approach for colleges?" some concerns raised by VPAs were those mentioned earlier, such as the approach does not allow for variations across colleges and the perceived loss of autonomy. It was also noted that the environment is fairly competitive in the system, for example in the area of enrolments and funding, and generally the college system is having difficulty functioning within centralized processes and practices. This can be attributed to the colleges 43 year history of being accustomed to a very high degree of autonomy. It was also noted that this approach could become a competitive model similar to the competition in the system which exists now on the reporting of KPI results. For a college that has had a program evaluation approach in place for some time, a common approach might have been welcomed prior to their investing, developing and testing their own process. A college that has a process that is

working well for their institution may not be willing to abandon this customized model or wish to invest more time and effort in a system model.

However, the key concern with a common system approach was how to make sure the evaluation is actually comparing apples to apples and oranges to oranges. One outcome might be that a set of numbers drive the system rather than actionable information which can be used to drive quality and continuous improvement. This concern reflects how the evaluation is done rather than should the evaluation be done.

All (n=6) colleges agreed (2 – strongly agreed and 3 – agreed, and 1 – somewhat agree) with the 4 categories or perspectives suggested in the proposed scorecard, specifically Accountability, Internal Business Processes, Innovation & Learning, and Financial. Most (n=5) also agreed that each should be weighted equally in the scoring methodology and given equal importance within the evaluation of program performance. One VPA commented that indicators related to cost of space and space utilization should also be included in the model. It was pointed out that this information coupled with information provided by the other financial indicators, specifically percentage gross contribution model, would provide a more complete lens on a programs impact and performance. One VPA liked that the model included program excellence as one of the “attributes of performance” within the accountability perspective. This signals to stakeholders that program excellence is one of the key accountability issues for Ontario’s publicly-funded colleges. Some (n=2) expressed concern that the indicators presented in the Internal Business Processes (IBP) and Innovation and Learning perspectives seemed to have considerable overlap and duplication. Most of the concern expressed here was related to the fit and appropriateness of the indicators proposed to measure IBP. These concerns are discussed later in this section when feedback on the proposed indicators is discussed in more detail. Generally, feedback received on Figure 1: Proposed Scorecard @ A Glance, page 39, was very positive as reflected in some of the comments:

I absolutely really like it. Well, I think it’s probably because we’ve been doing a lot of work here with balanced scorecards for the college overall. The sort of whole overall perspective, what’s been identified here ties in fairly nicely with that. (VPA from an Ontario College, with permission)

I have no difficulty endorsing a four frame model and internal business process as you rightly point out is certainly an important dimension of that. (VPA from an Ontario College, with permission)

I love them. (VPA from an Ontario College, with permission)

But keep in mind, again realizing from a truly academic perspective how great this looks. The concern is with implementation and how sometimes democratic systems and instrumental pressures can lead to a system that does not reflect what was intended. (VPA from an Ontario College, with permission)

As noted above most (n=5) VPAs agreed with giving the 4 perspectives equal weight in the scoring methodology and thought that they should all be considered of equal importance and attention in the annual review and evaluation of college programs. One VPA noted that colleges need a balanced perspective. However, this is largely missing in most discussion where often the financial perspective prevails with little attention to the others. They indicated that the method of having financial perspective clearly marked, as is suggested on the proposed scorecard, and assigning each perspective 25% weighting is a really nice way of dealing with this issue.

VPAs were asked to indicate their level of agreement with the proposed vision statement and the goal statements attached to each perspective. Scale responses were one “strongly agreed,” two “agreed” and three “disagreed.”

The vision statement, “To promote the continuous improvement, renewal and excellence in college programs which clearly demonstrates value for money”, received unanimous agreement (n=6) with the first part of this statement, “To promote the continuous improvement, renewal and excellence in college programs.” But most (n= 4) VPAs were not comfortable with the second part of this statement “value for money.” It was thought that this phrase does not adequately reflect the value of college programs, such as the personal growth, and economic and societal values derived from further post-secondary education both to the individual student, their families and communities in which they live and work. It was also thought the phrase causes people to look purely at a singularity “financial return” as opposed to the entire perspective and is an oversimplification of the intent of the proposed model. It was also thought the phrase “value for money” creates a “dollar based performativity” rather than say “community impact performativity” defining the value of college programs. The phrase “value for Ontarians” was proposed as an alternative and each VPA indicated that this phrase was preferable. Based on all the feedback given the phrase was further refined to read “which clearly demonstrates economic and societal value for Ontarians.” All (n=6) liked the use of a vision statement and goal statements to frame the purpose of the model and the overall goals within each of the four perspectives which they believed clearly convey what is being measured.

#### 5.4.4 Feedback on the Indicators

Wherever possible, indicators in the proposed scorecard (Figure 2: Proposed Indicators at a Glance, pages 41-42) were based on indicators (such as provincial KPIs) that are established and recognized measures used by the system and are derived from data from provincial surveys conducted by third party agencies using standardized methodology. Many of the indicators proposed for the Internal Business Process (IBP) and Innovation and Learning (I &L), however, could not be derived from the current provincial KPI indicators and provincial surveys (such as KPI Student Satisfaction, Graduate Satisfaction/Outcome and Employer Satisfaction Surveys). Rather these indicators reflect some indicators derived from the review of the program evaluation models used by colleges. Detailed information is provided on each of the proposed performance indicators and their specific measurement in Attachment 1: Detailed Version- Proposed College Provincial Program Performance Scorecard. When asked to what extent each VPA agreed with the proposed performance indicators, all (n=6) agreed with the indicators proposed for accountability and financial perspectives. However, some concerns were raised with a number of the indicators in the accountability perspective. One VPA thought there was overlap and duplication in the indicators proposed in the IBP and I&L perspectives. The concern expressed was that the indicators proposed to measure IBP were not a direct measurement of those internal business processes, such as the teaching function. Based on this input significant modifications were made to the indicators in the IBP perspective. The indicators proposed in each of the four perspectives and the feedback received is discussed in the next four sections.

##### *Accountability Perspective*

Within the accountability perspective concerns were expressed with many of the proposed indicators, such as KPI graduation rate, retention rate, achievement of learning outcomes and participation rates. Figure 2, page 41, shows the seven performance indicators suggested to measure program excellence. These include graduation rate, retention rate, satisfaction with teaching, satisfaction with essential skills development, achievement of learning outcomes, pass rate on professional examinations (if applicable) and program accreditation standing (if applicable). Only those indicators that posed some concerns for the interviewed VPAs are discussed here.

Graduation rate is one of the five Key Performance Indicators (KPIs) defined by the Ontario Ministry of Training, Colleges and Universities (MTCU). Graduation rate is reported at the overall institutional level for each college on the Colleges Ontario website at [www.collegesontario.ca](http://www.collegesontario.ca). Each college is required to report this data to the

Ministry by program using the MTCU program code number. The graduation rates are calculated as the unit of measurement using twice the program length in years. Although a well-established indicator, most VPAs expressed concern with the assumptions behind this indicator which has led to the graduation rates reported as lower than might be if the indicator was defined differently. The concerns are with the assumptions and the current methodology used to calculate graduation rates. The other problem with using graduation rate as it is now defined is the data in the reporting year does not indicate actual data for that year. The data reflects graduation rates from two, four or six years for one, two and three year programs, respectively. As discussed previously, the paper by Arthur Donner Consultants (2000) provides a very detailed critique of measuring graduation and attrition at Ontario Colleges and offers solutions to these problems. The VPAs did think that we should use what we have right now in a proposed scorecard, e.g. the current KPI graduation rate. That said, addressing these problems with the KPI graduation rate indicator was believed to be an important issue by this group.

Retention rate is another indicator included as a measure of program excellence. Concern was also expressed with the assumptions and measurement associated with this indicator. This indicator offers data on the persistence of students in their program, which of course can be influenced by many variables, some within the control of the program and many others that are not within the control of the program. Retention is one of the indicators colleges are required to report on and set improvement targets for the institution within the Multi-Year Accountability Agreement (MYAA). Since colleges are required to report on retention in the MYAA it seemed appropriate that this indicator be included in the proposed program scorecard for colleges under the accountability perspective. Retention can also be used as a measure of program effectiveness and in this light could have also been included as an indicator within the IBP perspective. It is proposed that retention would be reported as per the requirements in the MYAA, 1<sup>st</sup> to 2<sup>nd</sup> year, 2<sup>nd</sup> to 3<sup>rd</sup> year and 3<sup>rd</sup> to 4<sup>th</sup> year, since this is currently the manner that colleges are now required to report retention rates. Like graduation rate, concern was raised about the current assumptions and methodology used for this indicator. Better student tracking and a broader definition and understanding of retention would improve the confidence of academic managers in the use of retention as an indicator in program evaluation and for MYAA reporting to the Ministry.

Achievement on learning outcomes indicator is measured using the combined scores from graduate responses on question 32 from the provincial KPI graduate outcome, graduate satisfaction survey and employer responses on question 73 from the provincial KPI employer satisfaction survey. Graduates are asked to indicate their level of satisfaction with their educational preparation for specific job-related knowledge, specific job-related skills, oral communication, written communication, comprehension,



math skills, critical thinking, problem solving, research and analysis, and teamwork. Question 73 asks the employer to indicate their satisfaction with the employee's level of preparedness in these same skills. This measure does not provide a true measure of the degree to which these skills have been achieved by the graduate. A true measure of the degree to which each skill has been achieved could only be provided through a process of pre- and post-testing. Colleges do not test students at entry in these areas and then test again when student are exiting their programs to measure the overall progress made in each learning outcome. This measurement reflects the perception of the graduate and their employer on the achievement of learning outcomes and is therefore a subjective measure and must be interpreted as such. The other concern expressed is the low response rates for most programs on the KPI employer satisfaction survey, which further puts into question the validity of the data used to measure achievement on learning outcomes.

Two other indicators are suggested as a measure for program excellence. These are student pass rate on professional examinations and program accreditation standing. Both are outcome measures related to quality of the program and graduates. It is suggested that these indicators be reported for programs where these activities are applicable. Since not all programs lead to voluntary or mandatory professional examinations for entry to practice in their field nor program accreditation by an external body, it is suggested that these indicators be reported in the program scorecard. However, the score would not be included in calculation of the final score in the accountability perspective. In this way this information can be made available at the program level for review and to establish goals without impacting the score achieved by the program in the scorecard accountability perspective. This approach ensures that all programs' final scores are being calculated using the same core set of indicators, creating a level-playing field for all programs. VPAs expressed support for the inclusion of these indicators provided they are reported but that they not be included in the calculation of the final program scoring.

Participation rates for underrepresented groups are one of the indicators included as a measure of access. These are measures included in the MYAA. MYAA have identified Aboriginal, students with disabilities, first generation, and immigrant as under-represented groups in Ontario post-secondary education. They require colleges to report at an institutional level on the participation rate for each group and to also establish overall institutional goals to increase the participation rate for the next year in each under-represented group. The concern raised by one VPA was with the reporting methodology, with some of the groups, such as Aboriginal student. The problem is with the methods used to obtain this data. Currently the system relies on self-identification by the student. Another concern is that a number of methods are used to collect this data since no one standardized system has been adopted or mandated by the Ministry.

Most colleges are reporting data from more than one source for each under-represented group, such as the Ontario College Application Service (OCAS) application, the Freshman Integration and Tracking System (FITS) survey and the Ontario Colleges Student Engagement (OCSES) survey. It is largely understood that these student groups often do not self-identify, for example, as Aboriginal. Therefore the population is under-reported and not representative of the true participation rates within Ontario's colleges. It is anticipated that participation rates for underrepresented groups, when reported at the program level, will vary considerably from program to program and from region to region. Therefore, it is suggested these rates be reported within the program scorecard; however, they would not be factored into the calculation of the final score for the accountability perspective. In this way this information can be made available at the program level for review and to establish program and/or school level goals without impacting the score achieved by the program in the accountability perspective. When this approach was suggested, the VPAs were in agreement with including the participation rates for under-represented groups as indicators of access in the proposed scorecard.

#### *Financial Perspective*

All (n=6) VPAs agreed with the attributes of performance and the proposed performance indicators within the financial perspective. Figure 2, page 42, shows the eight performance indicators suggested to measure financial attributes of performance. The intent is to report on all the indicators proposed. However, only the percentage gross contribution margin indicator would be used to calculate the final score in the scorecard financial perspective. The gross contribution margin appears to be the key indicator of performance most college administrators are concerned with. The VPAs were in agreement with this approach to the calculation of the overall program score for the financial perspective. One VPA suggested that the proposed scorecard also include measures to reflect the programs' cost of space/facilities cost as well as a measure of space utilization. These indicators were not reflected in the proposed model at the time of the interviews with the VPAs. By including these measures the programs full financial impact can be assessed, which would not be the case if financial impact only considers the program's financial contribution as measured using only the percentage gross contribution margin after direct program expenses. It was suggested by one VPA that I consult with their VP Corporate as well as facilities planning personnel at Algonquin College because they have developed considerable expertise in measures related to space/facilities costing and space utilization rates. Based on this consultation two attributes of performance related to space were added to the proposed scorecard. The first was cost of space as a process measure of efficiency within the financial perspective, and the second was space utilization as a process measure of efficiency within the internal business process perspective.

The proposed measure for the total program space cost is defined as the college average Net Assignable Square Feet (NASF) cost, multiplied by the NASF used by the program. The NASF cost data for each college is compiled annually by Ontario Colleges Facilities Managers Association, so determining the NASF by program and then the total cost of space by program should not represent additional costs or resources for colleges. The proposed measure for space utilization rate is defined as the program average utilization rate of its total space allocation, where total space allocation includes both dedicated and non-dedicated NASF used by the program, based on a standardized 50-hour academic week. This indicator is measuring utilization of space by the academic program, so it seems appropriate that this indicator be included as a measure of efficiency within the internal business process perspective as it relates to the academic program delivery. However, this indicator could also be included in the financial perspective if this was determined to be more appropriate by colleges.

#### *Internal Business Process Perspective*

Most (n=4) VPAs thought there was overlap and duplication in the indicators proposed in the IBP and I&L perspectives. Internal business processes that relate to the operation of college programs are processes related to functions of student recruitment, teaching, learning and curriculum development and revision. **Figure 3** below shows the performance indicators that were originally proposed for use in the IBP perspective.

**Figure 3: Internal Business Process Perspective Presented During Interviews**

*To employ processes that promotes continuous renewal and development of college programs, student satisfaction and the effective use of college resources and services.*

Strategic goals	
To be defined by the program.	
Attributes of Performance	Performance Indicator
Program Demand and Enrolment Management	2.1.1 Registrant to Offer Conversion Rate 2.1.2 Met Planned Enrolment Target
Teaching	2.2 Student Satisfaction with Teaching
Learning	2.3 Student Satisfaction with Learning Experiences
Curriculum	2.4 Student Satisfaction with Curriculum/Program
Academic Development	2.5 Student Satisfaction with Skill Development

There was concern expressed by some (n=2) VPAs that the indicators proposed to measure IBP were not direct measures of the quality and effectiveness of teaching, learning and curriculum processes employed in college programs. For example, the indicator proposed to measure teaching quality was based on responses to questions by students derived from the KPI student satisfaction survey. This measure of satisfaction with teaching is a measure of the students' impressions with the quality of

teaching offered in their program. Although valid information, it is not a direct and objective measure of the quality and effectiveness of the teaching function within the program. The same critique can be applied to the proposed indicators that were suggested for learning and curriculum. These too were based on the subjective responses to questions on the KPI student satisfaction survey. Some VPAs suggested possible alternatives to the proposed indicators, which would offer measures that directly reflect effectiveness of processes related to program operations. For example, efficiency of the teaching function can be measured by student/staff ratio, specifically, the ratio of full-time students to full time equivalent (FTE) academic staff and the ratio of part-time students to FTE academic staff. These ratios can be compared to similar programs in other colleges or to the average ratio for the programs within an academic school or for the institution. However, student/staff ratio may not be the most appropriate measure of teaching function. Student/staff ratio is provided as an example but highlights the need to develop relevant and direct measures of the effectiveness and relevance of the teaching, learning and curriculum functions. Another possible measure of teaching effectiveness is average teacher contact hours (TCH)/week per FTE academic staff. Again these are only provided for illustrative purposes.

When reviewing the college models it is very interesting to note that indicators specific to IBP and specifically those related to teaching, learning and curriculum were lacking in most models. This represents an area of challenge to be able to suggest, with confidence, measures for the proposed scorecard that are accepted as good measures of key academic processes, such as teaching, learning and curriculum. This is an area for further research and consultation to improve our understanding of the performance indicators and measure which are most valid and useful to include in the IBP for a college program scorecard.

Figure 2, page 41, reflects the final indicators selected for use in the IBP perspective. The processes to be measured in the IBP perspective included; program demand and enrolment, space utilization, teaching function, curriculum relevance, and educational technology. Most indicators are measuring the efficiency of these processes, while the indicators suggested for curriculum are an attempt to gain both student and external input (such as advisory committee) on the processes employed to ensure curriculum is current and relevant. The indicators suggested for educational technology are measuring both efficiency and access in deploying processes, such as learning management systems, simulation software and e-learning. It is feasible to benchmark performance for each indicator to the provincial average for the indicator for like programs within the system. However, the measures for curriculum relevance could prove difficult in this regard. One measure is based on student satisfaction with curriculum based on responses from the provincial KPI student satisfaction survey, which could be benchmarked. However, the other measure, feedback from advisory

committee, requires the adoption of a standardized survey for use by all colleges and the consistent administration of this survey. For example, if a brief standardized survey was developed for use by all colleges to survey advisory committee members annually to comment on curriculum and program relevance, it would be important that the survey be administered to sufficient number of persons and in a consistent manner to ensure the data was valid for comparison with like programs. It is also important to include advisory committee members who have been members for at least one year and who have no potential conflict of interest such as teaching part-time in the program. This would ensure those providing input are doing so as objective external participants. It is important that the survey be short, consisting of 8-10 very relevant questions, which could assess both the relevance of the curriculum and the efficiency of the processes used to review and revise curriculum. It is suggested that, to start, the advisory committee feedback indicator would be reported, but not be included in the scoring for the internal business process until there is confidence with the administration of the survey, the data collected and the survey response rates.

#### *Innovation and Learning Perspective*

This perspective, like the IBP perspective, posed challenges to propose indicators which are generally understood and commonly used by Ontario colleges. One VPA questioned the need for both the IBP and the Innovation and Learning (I&L) perspectives in the proposed scorecard. This is a valid point since system-level indicators are not readily found. However, the inclusion of these two perspectives offers a balanced approach to program evaluation that cannot be achieved if only accountability and financial indicators are used. One college, using a balanced scorecard which included indicators for I&L, offered some examples of possible indicators for use by the proposed scorecard. A number of indicators were derived from faculty input from an internally administered college Faculty Feedback Survey (FFS). When this VPA was asked if it was feasible to suggest a provincial KPI faculty feedback survey to provide input on learning and innovation for the proposed scorecard, this was viewed as a good idea. Other VPAs also saw the benefit of having a mechanism that ensured program faculty input was reflected in the program scorecard. The performance indicators in the proposed scorecard to obtain academic staff feedback are academic staff satisfaction with their work, the educational environment and resources, academic staff engagement and professional development and overall academic staff satisfaction. **Attachment 1: Detailed Version – Proposed College Provincial Program Performance Scorecard (pages A16 and A17)** suggests sample questions for use in a provincial Faculty Feedback Survey which have been adapted with permission from the Cambrian College Faculty Feedback Survey.

Using a standardized Faculty Feedback Survey would allow results to be compared across like programs and also provide system level data on performance for these

indicators, which are currently not available. It is anticipated that some colleges may not be supportive of a survey involving their academic staff that is administered by a third party. However, the advantage of such an approach would be consistent evaluation across all colleges and the potential for improved participation rates with an externally administered survey by a third party which was developed through consultation with all key stakeholders. A FFS could be administered on an agreed upon cycle and reported back to the colleges along with the other provincial KPI surveys. The addition of a provincial FFS would represent a new cost associated with the provincial KPI surveys and would require funding be allocated outside of the current funding to colleges. Adopting one survey may in fact represent a cost saving over the cost of each college developing and implementing their own FFS with overall higher response rates and improved system level intelligence not currently available in the area of academic staff satisfaction with their work, educational environment and resources, and opportunities for learning and innovation.

Another indicator included as a measure of innovation and learning perspective was research. It is recognized that this activity may be localized in a few select programs in most colleges. Applied research is not a core function of colleges, and research is also not a requirement for college faculty within the collective agreement and the role description for college faculty. For this reason it is suggested that this indicator be reported for programs where this is applicable; however, the score would not be included in the calculation of the final score for I&L. Some VPAs also expressed concern with the resources needed to track, document and report data related to research and two other activities included in the I&L perspective, informal learning and experiential learning. The informal learning area includes indicators for student and academic staff engagement in informal learning activities, such as community outreach projects, applied research, and student competitions. Informal learning is recognized as a value-added activity in the educational process. It is proposed that these activities be tracked, documented and reported by the office of the academic dean for each school. It is also anticipated that informal learning opportunities and engagement of students and academic staff will vary from program to program. It is suggested that to start, this indicator be reported but not included in the final score for I&L. The experiential (formal) learning includes two indicators: the first is student satisfaction with the quality of lab/shop learning, and the second is the student satisfaction with the quality of the field work, clinical experiences and co-op work terms. Some concern was expressed with including the second indicator, as colleges do not have direct control over the availability and quality of these experiences that are provided by third parties contracted by colleges. This is a valid comment that colleges cannot control for these factors, and therefore it was suggested that the second indicator be reported in the proposed scorecard but would not be included in the calculation of the final score for the I&L

perspective. This approach was acceptable to the VPA who raised this concern. The final area included in the I&L perspective is higher level skill development, which is derived from the provincial graduates and employers surveys and asks their satisfaction with the educational preparation of the graduate in the areas of critical thinking, problem solving, research and analysis, teamwork, creativity, innovate and adaptability. One VPA indicated the concern that this measure is subjective and does not reflect the actual amount of skill development that has occurred in these areas. However, the indicator does provide useful qualitative information to colleges, which renders it worth including in the proposed scorecard.

#### **5.4.5 Feedback on the Proposed Data Sources**

Many of the indicators proposed use data obtained from the provincial KPI surveys, such as the Student Satisfaction Survey, Graduate Outcome and Satisfaction Survey and the Employer Satisfaction Survey. The VPAs were provided a one-page document, "Data Sources at a Glance," which provided a summary of the data sources for the proposed scorecard. The VPAs were asked if they agreed that these are accurate and feasible data sources to evaluate program performance at the program and at the system level. Most "agreed" or "strongly agreed," and one "disagreed". Most (n=5) agreed that the data derived from the provincial KPI surveys, and although not perfect, did allow for system comparisons. However, one VPA thought that the problems related to graduation rates, employer survey response rates and administration of the student satisfaction survey need to be addressed before these data are used in the proposed scorecard for program evaluation and comparisons. The VPAs also indicated support for the "faculty feedback" indicators in the scorecard and for the introduction of a provincially-administered faculty feedback survey. As noted earlier, a provincially-administered survey was seen as a more credible approach with college faculty. It is significant that this survey has the buy-in and support of college faculty to ensure valid response rates. The main perceived advantage is that a provincially-administered survey could give colleges extremely valuable data across the system related to academic staff satisfaction with their work and learning opportunities.

#### **5.4.6 Feedback Related to Benchmarking**

For many of the indicators the suggested benchmark is the provincial average for like programs (e.g. programs with the same MTCU code#). The VPAs were asked if this was an appropriate benchmark to use in the proposed scorecard. Most (n=5) agreed that this was a good benchmark; however, there needed to be care to ensure other benchmarks can be used and to have a system in place where benchmarking can be determined by each college. One VPA expressed this concern this way:

We really need to know how we are doing where the demographics are the same. For example, the challenges we might have in our international business classrooms, because of diversity would be very similar to the challenges Humber or Centennial have. So those are relevant benchmarks for us that go to my earlier comment that I believe benchmarks need to be institutionally derived.  
(VPA from an Ontario College, with permission)

#### **5.4.7 Overall Feedback on this Study and the Proposed Scorecard**

VPAs were asked, “Overall, in your opinion, do you think that the proposed model would offer an effective mechanism to support the continuous improvement, renewal and review of college programs?” Most (n=5) VPAs agreed that the proposed scorecard could offer an effective mechanism for continuous program improvement and evaluation. However, a few cautions were raised. One was that this process could lead both to some desired changes and also some unintended changes for the system. This raises an important observation that this is one mechanism that must be used together with a number of other important processes to evaluate academic programs. For example, there are a number of parallel processes that offer a check and balance to the proposed program scorecard, such as the comprehensive review process and renewal processes, the PQAPA process, strategic enrolment management and planning and curriculum review and annual academic planning processes. This also raises the need for an appropriate oversight committee that has the expertise to review the impact and the appropriateness of the scorecard and the proposed indicators on an ongoing basis and to make appropriate recommendations for improvements as required through a formal evaluation process. One VPA agreed that those colleges that do not have an annual program evaluation model in place could benefit by adopting the proposed scorecard. However those colleges that already have a process in place may think that it is an effective mechanism and may not wish to switch to the proposed scorecard. This VPA also thought that the proposed scorecard was “overly complicated.” This is understandable as the intent is not that all the indicators be adopted but that a core set of indicators be determined for each of the four proposed perspectives. This would provide a scorecard which provides information on the indicators seen as most important to the system and that does not demand time and resources that outweigh the intend benefits of a common quantitative program evaluation scorecard.

VPAs were asked, “How confident are you that the proposed model could be implemented at your college?” Two responded “very confident” and three responded “somewhat confident,” while one did not provide a response to this question. Some (n=2) indicated that this would require making modifications to their current process, which would not be too difficult, but there was also concern expressed by some that appropriate resources and funding should be allocated to colleges to support program



evaluation and reporting requirements such as the PQAPA process and the proposed program scorecard. The main message here is a program scorecard needs to be simple, with not as many indicators as proposed here, easy to understand and not too big a drain on college resources.

VPAs were asked, “In your opinion, would you say that a system-level program evaluation model is desirable?” This is a central question of this research study. Five responded “yes” and one responded “no.” One VPA indicated that a system-level program evaluation model would be desirable if it was a ‘hybrid model’ which allows for some local differences. The ‘hybrid model’ would be a scorecard with a common format such as the one proposed using the four perspectives and using a core set of indicators and standardized data collection and scoring. However, benchmarking and targets would be determined by the institution rather than setting targets at a system level. One VPA indicated that a system-level program evaluation model is desirable but queried if this was necessary, in light of the PQAPA process all colleges are mandated to participate in. It is true that PQAPA does offer a mechanism to review the quality assurance processes in colleges and also reviews evidence that these processes are happening. However, the PQAPA process does not assess or measure individual program performance or quality against system standards or comparisons. It is this function that a system-level program evaluation model would address. The VPA who did not think a system-level program evaluation model was desirable explained that the proposed scorecard was “too tedious” and also disagreed with a model proposing “benchmarking be centralized.” This VPA did think the model had lots of desirable elements to it. One VPA who agreed that this was desirable stated:

There should be a common set of system level metrics used to review accountability. The challenge is to balance the assessment of the intended outcome with the amount of resources required to monitor that outcome. At some point the amount of resources necessary to monitor the outcome outweigh the benefit of the measurement. (VPA from an Ontario College, with permission)

The above comment emphasizes the need for a common set of system level metrics which could be organized into a mechanism such as the proposed scorecard. A common set of metrics satisfies the need to demonstrate accountability at the college program level, balancing that with the need to ensure the time and resources required for such a system are appropriately funded and reasonable for all the colleges within the system.

Finally, VPAs were asked to comment on “What they would recommend as the next steps to moving this initiative forward?” A number of suggestions were provided to expand consultations on the proposed model. Further consultation could serve to further

validate the findings in this exploratory study and would offer further advice on how to improve the proposed scorecard. One recommendation was to explore opportunities to collaborate, either through further research or host discussion forums, on the proposed model with organizations such as the Management Board of the Ontario College Quality Assurance Services, Colleges Ontario, Ministry of Training, Colleges and Universities and the Higher Education Quality Council of Ontario. The College Coordinating Committee of Vice Presidents Academic (CCVPA), which includes all the VPAs at the 24 Ontario colleges, was seen as a pivotal group to engage and whose support would be needed for such an initiative to move forward. It was also suggested to expand consultation on the proposed model to other college committees of Vice Presidents, such as Finance, Corporate and Student Services. Should sufficient interest and support be expressed by CCVPA and some of the other groups mentioned above, then proceeding with the development of a detailed plan, which includes a cost-benefit analysis for presentation to the Council of Presidents (COP) for Ontario colleges, might be warranted.

In summary, overall most (n=5) VPAs interviewed supported the concept of a common program evaluation model for use across the college system, such as the proposed scorecard. There was support to develop an annual mechanism to evaluate program performance using standardized performance indicators and system-level data wherever possible. However, there was concern expressed that program comparisons and benchmarking be flexible and allow for the variations within the system. This feedback represents a small sample of college VPAs, 6 of 24, so the support expressed must be view as preliminary and certainly not representative of the larger VPA group. This study was exploratory; however, the initial positive feedback provided by the interviewed VPAs suggests an opportunity for further study and consultation on a possible college program scorecard. Further research and consultation would include the identification of system requirements, development or refinement of current and new data sources and indicators, and the identification of the costs and resources needed for implementation and ongoing monitoring of the effectiveness of the scorecard and reporting system.

### ***5.5 Summary of Key Findings***

1. Twelve of the twenty colleges studied during the first round of the PQAPAs (each college is audited every five years) only “Partially Met” Criterion 5, which states “Regular program quality assessment that involves faculty, students, industry representatives, and others as appropriate for the purpose of continual improvement is in place and happens” (OCQAS, 2009, p.15).

2. The document review conducted in this study includes a review of the twenty Executive Summaries (ES) Reports from the PQAPA panels to determine the reasons given when a “Met” or “Partially Met” decision was given for Criterion 5. The reasons for these decisions were difficult to document in this study. This is because the audit panel reports do not identify recommendations by each of the criterion. The ES report also does not explicitly state the reason for a “Met” or “Partially Met” decision in each criterion.
3. Key themes and key phrases that emerged from a review of the recommendations in the Executive Summaries point to the importance of an annual review process. These were the need for colleges to demonstrate
  - a. Effective coordination of the annual reviews with the formal review process;
  - b. That an annual review process occurs and is effective;
  - c. Annual review with emphasis is on quality issues (e.g. KPI results, student feedback, support service effectiveness);
  - d. Development of service standards and setting benchmarks against which outcomes are measured; and,
  - e. Formal mechanism to integrate various KPI data into formal review process.

These themes highlight (1) the need for evidence of a mechanism to ensure that an annual and structured process is in place to evaluate program quality and improvement between the formal program review cycles, and (2) that the annual review and the formal review processes are coordinated with one another.

4. Although not the main focus of this study, the approaches to the comprehensive review processes in colleges was examined. This study found that most were using a five-year cycle. However, reviews ranged from every three years to as much as every 7 to 10 years. Generally these reviews consisted of a largely qualitative formal review process requiring considerable data collection, usually in the form of a self-study with consultation with stakeholders (internal, external or both). A number of colleges have incorporated a thorough and structured curriculum review component within the program review process or have adopted a formal annual curriculum review process. Both approaches have elevated the importance of curriculum mapping, program standards, course outlines, student feedback and evaluation, and teaching and learning practices within these quality assurance processes.

5. The interim or annual review processes could be categorized into two general groups: those mainly qualitative in nature and those mainly quantitative. The qualitative tools consisted of checklists, questionnaires, program quality portfolios or follow-up reports that were designed as an annual self-assessment completed by program personnel or the academic manager. Often these results were submitted to the Dean for review and follow-up. The quantitative tools consist of four basic styles: Performance Indicators Reports (PIR), Report Card, Balance Scorecard, and Performance Matrix.
6. When asked about the impact the PQAPA process had on the college quality assurance practices in their college, VPAs identified three main themes. The process (1) was affirming, (2) provided an opportunity for self-reflection and self-assessment, and (3) offered useful recommendations which lead to meaningful improvements.
7. Although limited to a sample of six college VPAs, this study determined there was general agreement by most (n=5) VPAs that the program evaluation model used by their college as “very satisfactory” or “satisfactory”. These colleges were all using a quantitative model. One used a balanced scorecard. One used a report card. Three others use a performance indicator report. The one college using a qualitative approach was using a school level self-reporting checklist and indicated the tool was too new to determine its effectiveness.
8. When asked, “Does the program evaluation approach in your college allow for the objective measurement of performance?” all (n=6) colleges agreed that the measurement provided by their tools, although neither truly objective or 100% accurate, offer a mechanism to “flag problems” which then can lead to further analysis and clarification. It was pointed out by one VPA that when using indicators that rely mainly on data based on people’s perceptions, such as the faculty feedback or student satisfaction survey data, such data can never be viewed as truly objective. However, this qualitative feedback is representative of people’s experiences and therefore very informative. When taken together with other quantitative measures, such as financial, enrolments, etc., the system “works.”
9. All (n=6) colleges agreed with the concept of establishing a common set of core indicators across the system for program evaluation, the development of a common vision and goal statements, and the identification of a common set of perspectives, (such as the four proposed: Accountability, Internal Business Process, Innovation and Learning and Financial) from which to derive the attributes of performance and the subsequent core set of performance indicators.

10. Disagreement was expressed by most (n=4) around the issue of benchmarking and establishing targets at or for the system. The concerns expressed were mainly twofold. The first concern is the considerable differentiation and variations across the system that could lead to unfair and unintended bias in the results. The second concern is based on a philosophical view of colleges and institutional autonomy.
11. Perhaps, the most compelling benefit offered for a common system approach was the observation by one VPA about the potential for this type of review to facilitate the recognition of like programs across the colleges, which could facilitate greater student credit and transfer than is currently happening across the system.
12. However, the key concern with a common system approach was how to make sure the evaluation is actually comparing apples to apples and oranges to oranges. How do we ensure that a set of numbers do not drive the system rather than actionable information which can be used to drive quality and continuous improvement? This concern addresses how the evaluation is done rather than should the evaluation be done.
13. All (n=6) VPA's agreed with the 4 categories or perspectives suggested in the proposed scorecard: Accountability, Internal Business Processes, Innovation and Learning, and Financial. Most also agreed that each should be weighted equally in the scoring methodology and given equal importance within the evaluation of college programs.
14. Half (n=3) disagreed with the phrase in the vision statement "value for money," as it was thought that this phrase did not adequately reflect the value inherent in the college program experience and credential. Based on the feedback received, the phrase was adjusted to say "economic and societal value for Ontarians." The vision statement for the proposed scorecard now states "To promote the continuous improvement, renewal and excellence in college programs which clearly demonstrates economic and societal value for Ontarians." All (n=6) VPAs supported the use of a vision statement and goal statements to frame the purpose of the scorecard and the goal related to each of the perspectives, which clearly convey what is being measured.
15. When asked to what extent each agreed with the proposed indicators, most (n=4) agreed with the indicators proposed for accountability and financial perspectives. However, most provided suggestions to either remove or add an indicator in the Internal Business Processes and Innovation and Learning perspectives. There was also concern that there seemed to be overlap and duplication of what is being measured in the IBP and I&L perspectives. Specifically, the indicators proposed to

measure IBP were not a direct measurement of those processes. Based on this input significant modifications were made to the indicators in the IBP perspective.

16. Although there was general agreement (n=4) with the use of the data sources proposed in the model (e.g. data obtained from the provincial KPI surveys), there was strong concern expressed with some of the KPI data and indicators, particularly employer satisfaction, graduation rate and the administration of the student satisfaction survey. The general thinking was that there is work to be done on these indicators before they could be adopted for use across the college system in a common program evaluation model or scorecard.
17. Although the majority agreed (n=5) with the proposal to set the evaluation benchmark to the provincial average for like programs (e.g. MTCU code number), many (n=3) wanted a system that offered a range of benchmarks for each indicator, which allows for the differences within the system, such as college mission, student characteristics, geographical considerations, etc.
18. Most (n=5) thought the proposed model would offer an effective mechanism to support the continuous improvement, renewal and review of College programs. Caution was expressed by some VPAs whose colleges have a system in place that works in their institution and that their college may not wish to change. Care also needs to be taken to ensure what is intended to be measured is what in fact is measured. Concern was expressed that the proposed model might be too comprehensive, too tedious, too detailed. This VPA suggested that only two perspectives rather than the four proposed be used to define a core set of system indicators (such as accountability and financial), while the other two perspectives could be locally determined and measured within each college.
19. Although most (n=5) thought the proposed scorecard could be implemented in their college and require only small changes, some were concerned that significant costs associated with program review and evaluation be recognized and supported through a special funding allocation.
20. When asked if a system-level program evaluation model is 'desirable', most (n=5) indicated it was. However, hesitation was voiced about whether such a process was necessary in light of the PQAPA process, which is intended to provide a review of quality assurance processes across the system. One VPA thought the model was not desirable because it was too tedious and because this VPA did not agree with benchmarking being centralized. However this VPA did think the model had lots of desirable elements.

21. The VPAs interviewed offered a number of suggestions for moving such an initiative forward. These included (1) engaging the College Coordinating Committee of Vice Presidents Academic (CCVPA) as a group with the support of the OCQAS Management Board, (2) the possibly for further research and/or discussion forums hosted through the Higher Education Quality Council of Ontario (HEQCO), (3) engaging other key stakeholders such as the appropriate MTCU and Colleges Ontario officials, (4) consulting further with scholars who can provide an international perspective on current models and the perceived return on investment, and (5) solicit input for other college Vice Presidents such as those with Finance, Corporate and Student Services responsibilities with feedback to the Council of Presidents (COP).
22. When asked generally to comment on the proposed model and this study, all (n=6) indicated that the attention to program quality through evaluation and accountability mechanisms was absolutely crucial to the colleges' future in establishing and maintaining international recognition as well as the respect of our students and the Ontario taxpayer.
23. Further questions that require additional consultation and study are whether a system-level scorecard, such as the one proposed in this study, is significantly superior to current practice (college locally-derived models) and if so in what ways and at what cost?
24. However, when asked "Is a system-level program evaluation model a superior approach to the current varied approach of colleges developing their own systems?" advocates for a system level approach (n=2) provided the following reasons why. In their view, this would be superior:
- a. Greater consistency in college program evaluation processes;
  - b. Greater capacity to benchmark program performance using comparative data;
  - c. Greater opportunity to demonstrate quality at a system level for PQAPA and to foster international recognition for Ontario college programs and graduates;
  - d. Potential to lower overall costs by each college spent on in-house research, development, collection, and reporting related to program review and evaluation;
  - e. Provides the system with a common language for discussion and strategy;  
and

- f. Common evaluation tool provides potential for greater recognition of similar programs between colleges, improving on the current limited opportunities that exist for credit for prior learning, student mobility and transfers between Ontario's colleges.

## 6.0 DISCUSSION

Review of the literature, executive summaries from the PQAPA process and the program evaluation processes in Ontario colleges was conducted as a part of this study to inform the development of a standardized program evaluation model for Ontario's 24 publicly funded colleges. The review of the literature has confirmed that the processes employed by Ontario colleges for the evaluation of academic programs have not received much formal study. Most published studies have focused on the evaluation processes used to evaluate the quality of teaching and learning in the university setting in Canada, the United States and abroad (Cameron, 2009; Education Policy Institute, 2008; Finnie, 2005; Trotter, 1996). These studies, however, are both informative and relevant in many ways to the college setting and can be helpful to inform our knowledge of and our application of program evaluation within the Ontario college setting.

This study examined, through a document review, what extent a regular evaluation involving full-time post-secondary academic programs was in place and is happening in colleges, and what approaches colleges have taken to the annual or regular review of their academic programs. The review of the evaluation processes found that the majority of colleges, 18 of 21 participating in this study, had implemented an annual or biennial program evaluation process involving all post-secondary full-time programs to inform internal operations and decision-making and to complement the largely qualitative periodic comprehensive program review processes. Further, the annual review process generally was found to consist of two types: those that used mainly a qualitative approach and those that had adopted a mainly quantitative approach. However, of the eighteen colleges employing an annual program evaluation process, four colleges were using a qualitative approach and the other twelve have adopted a quantitative approach.

Often the purpose of the annual tools utilizing a qualitative approach is to demonstrate how PQAPA criteria are being met and how recommendations from the previous comprehensive program review have been addressed. In fact some of these tools have been modeled on the five PQAPA criteria. The process is intended to provide a follow-up reporting mechanism to the last comprehensive program review. It is important, that



such a mechanism exist, as far too often program reviews are time-consuming and resource-intensive and yet often fail to bring about recommended actions or lead to continuous improvement.

The quantitative tools consist of four basic styles: Performance Indicators Reports (PIR), Report Card, Balance Scorecard, and Performance Matrix. The considerable variation which currently exists in the methods of program evaluation by Ontario colleges does not allow for comparisons across like programs or colleges. However, the number of colleges that have implemented an annual or biennial program evaluation process is significant. This demonstrates the need for, and interest in, timely and quantitative evaluation of college programs to demonstrate accountability and to inform college decision-making processes.

Although the study was limited to a small, convenience sample of VPAs, 6 from Ontario's 24 public colleges, support for a standardized program scorecard was significant and most (n=5) VPAs liked the format of the proposed model. This group does represent the individuals most intimately involved in providing leadership and direction in their colleges in matters related to quality assurance, academic program review and evaluation and accountability for academic operations. Input from this group and from the 21 college PQAPA contacts offered considerable insight into the current program review and evaluation approaches in Ontario's colleges and to the development of the proposed program scorecard. Most of the concerns raised by the VPAs interviewed were related to issues of benchmarking, selection of appropriate indicators and implementation and the concern that the model allows for college and program variations across the system.

This study is significant because it represents the first study to examine the annual or biennial program evaluation processes in Ontario colleges and provides new information in this area. The study goes further to propose a standardized college program scorecard, the design of which was informed by the college models reviewed and current literature. The proposed scorecard was presented to a small yet representative sample of senior college administrators responsible for the academic operations within their colleges. These VPAs offered feedback on the proposed scorecard model (which lead to further refinements) and on the feasibility of its use by Ontario colleges. Although relatively small in nature, this exploratory study attracted a considerable level of interest from the majority of VPAs and PQAPA college contacts across Ontario. This study is a beginning and offers suggestions for further consultation and research to inform the development of an effective program evaluation process.

The proposed scorecard suggests a balanced approach to the evaluation of college programs. Many of the college models include performance indicators derived from

current provincial KPI data. However few models included performance indicators to evaluate internal business processes and innovation and learning perspectives. The lack of recognizable performance indicators to measure IBP and I&L made the task of suggesting possible areas for measurement, “attributes of performance” and appropriate performance indicators related to IBP and I&L difficult. Those suggested in the proposed scorecard were selected based on their application across all programs and colleges and the potential ease of reporting this type of data system-wide. Some performance indicators could be reported on the scorecard but would not be included in the scoring methodology on the basis that they are not relevant to all programs, for example, graduate results on external professional examinations.

Most of the college models did not include stakeholder feedback from college teaching staff. This reflects a significant gap in the program evaluation models in current use. The proposed scorecard suggests that a faculty feedback survey be established and administered in the same way as the provincial KPI surveys to provide both program specific, college and system-level data on faculty satisfaction with their work, the educational environment and resources, opportunities for learning and advancement and overall satisfaction with students, program, school and college. A short standardized survey administered to all academic staff on a predetermined schedule, preferably on-line, through an arms-length agency would communicate to faculty the importance of their feedback and the value the system puts in ensuring their views and experiences are considered and contribute to the evaluation of college programs.

The strength of the proposed scorecard is in its ease to communicate, to both academics and non-academics, what attributes of performance are important at a glance and why and how these will be measured. This quantitative approach lends itself to setting targets for expected performance and benchmarking of that performance in a number of ways, depending on the performance indicator in question. Benchmarking methodology and scoring methodology requires consideration of the differences across the system. For example, benchmarking retention requires that this is done comparing retention across like programs with comparable “beginning characteristics,” such as student demographics, curriculum, program delivery, etc. There is considerable work that could be done by colleges, in collaboration with other key stakeholder groups (such as MTCU, OCQAS, College Ontario and possibly others such as HEQCO) to identify the attributes of performance and two or three performance indicators and the measurement methodology to collect and report data for each of the four proposed perspectives. If there is the will to further explore the use of a standardized program scorecard, research and further dialogue is needed to take into consideration the variations across the system, colleges and programs in order to develop benchmarking and scoring methodology that allows for these differences.

The program scorecard is a tool that can respond to both the requirement for internal and external accountability for program quality and performance data. In future, once tested and well-established, some or all of the program performance scores on the program scorecard could be made public to provide information to young people and their parents when searching for information related to program quality and performance in a consistent and easy-to-understand format. This level of transparency and accountability to students and the public should be viewed as a positive step for colleges. Generally, the results for most programs will be a positive marketing exercise that provides the kind of information students and their families are seeking. Public disclosure can only enhance Ontario colleges' reputation as a system that is accessible and open by making information on program quality and performance easy to understand and accessible to all.

## **7.0 RECOMMENDATIONS**

The following recommendations are suggested to enhance current quality assurance processes within the Ontario college sector, including the program quality audit, and regular evaluation of full-time post-secondary programs in Ontario colleges:

1. To improve the clarity of the recommendations and decisions within the PQAPA Panel reports, it is recommended that the decisions for the score given in each of the five criteria be documented stating the evidence used to support the decision and also listing recommendations by the criteria they are related to.
2. This study did not examine the degree of consistency of the PQAPA panel decisions and their recommendations. Such a study could inform the specific elements that are required but absent in the colleges, and have not provided sufficient evidence to be awarded a "Met" score for Criterion 5. It is recommended that an area for further study include an extensive comparative document review of the complete final reports by each audit panel, the self-study and the corresponding evidence submitted by each college to examine the degree of consistency of the PQAPA panel decisions and recommendations.
3. To ensure that the current provincial KPI indicators provide accurate data that is truly representative of the attributes of performance being measured, it is recommended that the problems raised in this study associated with provincial KPI indicators, (such as the calculation of graduation rates, employer and graduate survey response rates, and the administration of the student

satisfaction survey) be given careful review by MTCU and actions are taken to address these concerns.

4. It is recommended that the provincial government, together with the colleges, develops and implements a faculty feedback survey similar to the other provincial KPI surveys. The current provincial KPI surveys ensure that key stakeholder views are considered by colleges, including those of students, graduates and employers. College academic staff represents another valued and informed group whose input should be sought using a consistent methodology and schedule such as the approach used with the other provincial KPI surveys. A brief, on-line survey, administered through a third party would likely enhance faculty engagement and participation in the program evaluation process. A provincially administered faculty feedback survey would provide a data source from which to derive performance indicators to measure the attributes of performance related to the learning and innovation perspective which represents a gap in the majority of the current evaluation models reviewed in this study.
5. It is recommended that the provincial government implements a College Student Identifier Number (CSIN) such as the one proposed in the paper by Donner and Lazar (2000), which would provide a system for the tracking of individual students across the entire post-secondary training/education system in the province. Such a system would improve the methodology and data collection in retention, program completion and graduation rates by replacing the current cohort reporting system with its many limitations. A CSIN would allow for the tracking of individual students moving between programs (institutional retention) within a college, as well as individual students moving from one institution to another (system retention). Another, possibly preferred option for government would be to have the Ontario Education Number (OEN) that is assigned to all elementary and secondary students be continued into the post-secondary system. The OEN would accomplish the same objective as the CSIN suggested by Donner et al. (2000), avoiding the introduction of a new identifier.
6. It is recommended that colleges should encourage and facilitate a process such as the establishment of a formal provincial coordinating committee to allow further consultation and refinements of the proposed college program scorecard, involving college groups such as CCVPA, OCQAS, HEQACO, COP and other key stakeholder groups as appropriate.
7. It is recommended that the Higher Education Quality Council of Ontario consider the possibility of funding a pilot project study involving 5 or 6 colleges representing the diversity of the colleges within Ontario to evaluate the use of a

standardized program evaluation scorecard. The scorecard using a core set of performance indicators and a range of system-level benchmarks would report annually. The pilot study would include recommendations for full implementation to all colleges including funding and future resourcing considerations and would also identify clearly the justification and objectives for its use.

## 8.0 CONCLUSION

The intent of this research project was to investigate and document the current approaches to regular program evaluation in Ontario's 24 publicly funded colleges and from this data to develop and propose a standardized Program Performance Model for use across the college system. The findings from the research project indicate that the current approaches to regular program evaluation vary considerably, and therefore do not allow for comparisons in the quality and performance across similar programs offered among the colleges. Regular program evaluation for the purpose of this study refers to the annual or biennial process used to evaluate all active programs a college offers between the periodic comprehensive review processes.

The findings from the research project also reveal that regular program evaluation is considered important by the study participants and is occurring in 18 of the 21 colleges participating in this study. The findings from the research project found that overall most (n=5) of the VPAs interviewed support the concept of a common program evaluation model for use across the college system such as the proposed program scorecard. There was support for a Program Performance Model to develop an annual mechanism to evaluate program performance using standardized performance indicators and system-level data wherever possible. However there was concern expressed that program comparisons and benchmarking be flexible and allow for variations within the system. This feedback represents a small sample of college VPAs, 6 of 24, so the support expressed must be view as very preliminary and certainly not representative of the larger group.

Although, this study was exploratory, the initial positive feedback provided by the VPAs interviewed suggests a willingness to pursue further study and consultation on a possible standardized college program scorecard. Issues to be explored include the identification of system requirements, the development or refinement of current and new data sources and indicators, the identification of the costs and resources needed for

implementation and the ongoing monitoring of the effectiveness of a college program scorecard and reporting system.

The question this research project arrives at is: “Is this model significantly superior to current practice and if so in what ways and at what price?” The findings from this research project suggest that most interviewed VPAs did think a standardized quantitative program evaluation model would be desirable and would offer many advantages over the current practice. The question of cost was not considered in this research project. This is an important consideration that requires further study. The question of cost and resources, such as personnel for data collection, analysis and reporting, is better addressed once the specific elements of a standardized college program scorecard have been proposed and the proposed data sources and structures identified. At this point a careful cost-benefit analysis should be done.

The other question this research project raises is, “Is this really necessary, since all colleges participate in the Program Quality Assurance Process Audit and at a system-level provincial KPIs are already in place?” An important distinction here is the PQAPA process affirms that a college has acceptable quality assurance policies and processes in place and that these are occurring. It does not provide an actual assessment of the quality and effectiveness of the programs provided by individual colleges. The PQAPA process is an important component in demonstrating Ontario colleges’ commitment to quality assurance and to meeting international standards for quality assurance in higher education. However, the ongoing concern for effective accountability of operations within colleges by college administrators, board members, students, and government is fuelling the need for a process and reporting mechanism that does provide a balanced quantitative evaluation of the quality and effectiveness of programs provided by colleges. The proposed scorecard offers senior college administrators a management tool that is easily assessable and offers a high-level view (or “flagging system”) to determine how each of their programs are performing relative to other programs in their college and relative to similar programs in other colleges. The provincial KPIs, which are made public, report the results at the overall institutional level and were not intended to provide public reporting at the program level. The findings in this research project suggest that regular program evaluation is considered extremely important by the study participants and is occurring in 18 of the 21 colleges participating in this study. This suggests that there is an opportunity to leverage the learning and intelligence that exists in individual colleges in this area to develop a standardized program performance model. This model would be superior to any one model currently in use and might offer a level playing field from which to evaluate and report program quality and effectiveness using consistent methodology, data and performance indicators.

In light of the importance of program evaluation to both effective internal operations of college programs and to demonstrate both internal and external accountability in college operations, the opportunity to work together on such an initiative may be one of the best opportunities to foster system collaboration and to focus the development and communication of system level goals within the Ontario college sector. This view was reflected in the comment offered by one VPA:

I think because we are already supposed to be using the same program standards. So, I think it is equally fair then to use the same evaluation tool to measure. And, yes I know we all have our individual flavours and take on things. But if it is a similar program with the same standards, I don't see why they can't be objectively measured. (VPA from an Ontario College, with permission)

In short, the findings from this exploratory research project support the need for further study and the opportunity for collaboration by Ontario colleges to define a core set of indicators for the system that can be used annually in a program performance model, such as the proposed college program scorecard. The proposed college program scorecard offers a balanced and consistent approach for colleges to demonstrate that regular program evaluation is happening, and more importantly, can provide evidence to internal and external stakeholders of the quality and value of programs offered by Ontario's colleges.

**Definition of Terms**

**References**

**Appendices**

**Attachment 1**



## DEFINITION OF TERMS

CAAT- Colleges of Applied Arts and Technology: There are 24 colleges of Applied Arts and Technology in Ontario. These colleges receive public funding from the government and many colleges have more than one campus location. These institutions offer the types of programs indicated in the definition of College (see College). Throughout this study, Colleges of Applied Arts and Technology will simply be referred to as “Ontario colleges.”

Higher Education: Often used interchangeable with “post-secondary” education (see “Post-secondary Education”) to refer to education for which completion of secondary school is normally required or expected. However, some commentators use higher education to refer only to that portion of post-secondary education that involves earning credit towards the attainment of a degree.

HEQCO-Higher Education Quality Council of Ontario: The Council is an arm's-length agency of the Government of Ontario established to conduct research and provide objective advice on all aspects of higher education.

MTCU-Ministry of Training, Colleges and Universities: The Ontario ministry responsible for higher education. The *Constitution Act* gives exclusive authority to each province in Canada to make laws in relation to education. In Ontario, the Minister of Education and the Minister of Training, Colleges and Universities are responsible for the administration of laws relating to education and skills training.

MYAA-Multi-Year Accountability Agreement: The Government of Ontario introduced MYAAs in stages in the mid 2000s. The Agreements, signed with each post-secondary education institution, articulate the government’s goals for the system, and roles and responsibilities in meeting those goals. This agreement confirms the commitments expected from each institution and the sector-wide indicators that will be used to report on results achieved.

OCQAS-Ontario College Quality Assurance Service: Is an arm’s-length, independent body that is responsible to coordinate regular, external, and independent audits that assess the effectiveness of quality assurance processes of publically funded colleges in Ontario. OCQAS also provides program level quality assurance through the Credentials Validation Services.

Post-secondary Education (also called “tertiary education” or “higher education”): Education that sequentially comes after secondary school and for which completion of secondary school or the equivalent is normally required or expected. Thus, post-secondary education includes programs offered by universities, colleges, and technical institutes. However, some of the programs and courses provided by these institutions do not require completion of secondary school and are not considered as post-secondary, for example, literacy and basic skills, short-term vocational training, and general interest courses.

PQAPA-Program Quality Assurance Process Audit: The self-regulatory mechanism for institutional quality assurance in Ontario’s publically funded colleges. PQAPA supports the responsibility of each college and its board to manage the quality of their programs.

PPM- Program Performance Model: For the purpose of this study, a mechanism that proposes a standardized set of “program level” performance indicators for use in Ontario colleges to regularly (usually “regularly” implies annually) assess the quality of post-secondary programs.

PPIs-Program Performance Indicators: For the purpose of this study, these are quantifiable measurements, agreed to beforehand, that reflect the critical success factors for and at the level of an academic program. They will differ depending on the program, for example, a college or a university undergraduate or graduate program and by college where they have been identified. These should not be confused with Key Performance Indicators used by MTCU to measure critical success factors by college or at the *institutional level* for the allocation of performance funding.

PLO- Program Learning Outcomes: The set of **program learning outcomes** should be a short but comprehensive list of the most important knowledge, skills, and values students **learn** in the **program**, including relevant institution-wide **outcomes** such as those dealing with communication skills, critical thinking, or information literacy.

Program Outcomes: The result of what a program or process is to do, achieve, or accomplish. Program outcomes can be as simple as completion of a task or activity, although this is not as meaningful as it could be and does not provide information for improvement. To accomplish the latter, you should try to assess the effectiveness of what you want your program to accomplish. Program outcomes, just like learning outcomes, should be measurable, manageable, and meaningful.

Quality Assessment: A process in which a group of experts examines a college or university program, identifies its strengths and weaknesses, and determines whether the program is of an appropriate standard. The experts who conduct the examination normally are from outside the institution that offers the program, and their examination normally includes a visit to the institution.

Quality Assurance: A process through which the public can be assured that the programs of a post-secondary institution are of an appropriate standard. Quality assurance may involve quality assessment by an external agency, or may concentrate on auditing the procedures employed by post-secondary institutions to ensure quality of their programs.

Regular Program Quality Assessment: For the purpose of this study, as defined by Criterion 5 of the PQAPA process, it is the regular (or at least annual) program quality management system the college has implemented that identifies and rectifies weaknesses, and facilitates the evolution of the program to maintain its relevance. This includes a process to review programs, courses and academic standards; to monitor improvement following review; and to determine continuation or suspension of courses or programs. The assessment also provides for the systematic measures of indicators that program outcomes have been met; assurance that the views of learners, employers, professional and trade bodies, and academic communities are taken into account; management of changes to programs and courses to keep them current with provincial standards and relevant professional body requirements; and, processes to ensure that recommendations arising from previous reviews have been considered and addressed. It also ensures that the documentation and other evidence arising from program quality management processes is maintained and used in ongoing quality management and graduates, employers, students, and other stakeholders indicate satisfaction with the program.

## REFERENCES

Ansoff, I. (1957). Strategies for Diversification. *Harvard Business Review*, 35(5), 113-124.

Arthur Donner Consultants. (2000, March). *Measuring graduation and attrition at Ontario colleges: A discussion of measurement issues and their usefulness as indicators of student success*. Toronto: Colleges Ontario.

Astin, A. W. (1980). When does a college deserve to be called "high quality"? *Current Issues in Higher Education*, 2(1), 1-9.

Cameron, J., Dr. (2009, March/April). Quality assurance for enhancement: An exploration of key performance indicators for academic quality. Paper presented at the 2009 Biennial - INQAAHE Conference, Abu Dhabi, United Arab Emirates. Retrieved from [www.inqaahe.org/main/conferences-and-flora/inqaahe-2009-conference](http://www.inqaahe.org/main/conferences-and-flora/inqaahe-2009-conference)

CCI Research Inc. (2009, July). *Measures of student engagement in postsecondary education: Theoretical basis and applicability to Ontario's colleges*. Toronto: Higher Education Quality Council of Ontario.

Clark, I., D., Moran, G., Skolnik, M., L., & Trick, D. (2009). *Academic transformation: The forces reshaping higher education in Ontario*. Montreal and Kingston: Queen's Policy Studies Series, McGill-Queen's University Press.

Colleges Ontario. (2009). *Environmental scan 2009*. Toronto: Colleges Ontario.

Retrieved from [www.collegesontario.org](http://www.collegesontario.org)

Dietsche, P. (2007). Learning and retention in Ontario colleges: Lessons from the 2006 Ontario college student engagement survey. Presentation from the Department of Theory & Policy Studies in Education, OISE, University of Toronto.

Education Policy Institute. (2008). *Producing indicators of institutional quality in Ontario universities and colleges: Options for producing, managing and displaying comparative data*. Toronto: Queens Printer for Ontario. Retrieved from [www.heqco.ca](http://www.heqco.ca)

Finnie, R., & Usher, A. (2005, April). *Measuring the quality of post-secondary education: Concepts, current practices and a strategic plan* (Research Paper No. W|28). Ottawa, Ontario: CPRN. Retrieved from <http://www.cprn.org/doc.cfm?1=en&doc=1208&print=true>

Hook, R., A. (2007). *HEQCO/College dialogue on learning research*. Toronto: Report on the Meeting Sponsored by the Higher Education Quality Council of Ontario.

Howlett, K. (2010, April 9). McGuinty gives Ontario colleges and universities an F in new spending. *The Globe and Mail*. Retrieved from

<http://license.icopyright.net/user/viewFreeUse.act?fuid=NzkxMDMwNQ%3D%3D>

Massy, W. (2006). *Evaluation of the Ontario college quality assurance service PQAPA pilot*. Toronto: Ontario Colleges Quality Assurance Service.

Merriam, S., B., & Simpson, E. L. (1995). *A guide to research for educators and trainers of adults* (Second ed.). Florida: Krieger Malabar.

Mohawk College. (2007). *2007-2008 Ontario college student engagement survey*.

Retrieved May, 27, 2010, from

<http://mohawkcollege.ca/Explore/Leadership/insRes/ocses.html>

Oldford, S. (2006, August). *Exploring options for institutional accreditation in Canadian post-secondary education*. Unpublished manuscript. Retrieved January 17, 2010,

from <http://www.bccat.bc.ca/pubs/oldford.pdf>

Ontario College Quality Assurance Service. (2009). *Program quality assurance process audit: Orientation manual - quality assurance and improvement in Ontario's colleges*. Unpublished manuscript. Retrieved January 17, 2010, from

<http://www.ocqas.org/pdf/pqapa-manua-revised-august-2009.pdf>

Ontario College Quality Assurance Service. (2010). *Credential Validation Services*.

Retrieved January 17, 2010, from <http://www.ocqas.org/cvs.html> Ontario College

Quality Assurance Service. (2010). *Service review: Self-study report*. Toronto: OCQAS.

Palys, T. (2003). *Research decisions: Quantitative and qualitative perspectives* (Third ed.). Scarborough: Nelson Thompson.

Saari, L. (2009, February). *The impact of the program quality assurance process audit on the Ontario college system*. Unpublished. Masters of Arts - Integrated Studies, Athabasca University, Alberta, Canada.

Skolnik, M., L. (1989). How academic program review can foster conformity and stifle diversity of thought and method in the university. *The Journal of Higher Education*, 60(6), 619-643.

Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, (1998). Retrieved from <http://pre.ethics.gc.ca/en/isg/policystatement/policystatement.cfm>

Trotter, L., Cutt, J., & Lee, E., Calvin. (1996). Public accountability in higher education and health: An international perspective. *International Journal of Public Administration*, 19(11-12), 1979-2005.

## **APPENDICES**

Appendix A: Project Information Sheet

Appendix B: Participant Informed Consent Form

Appendix C: Confidentiality Agreement

Appendix D: Document Review: PQAPA Executive Summaries

Appendix E: Semi-Structured Interview Tool



## ***Appendix A: Project Information Sheet***

An Exploration of a Systems Approach to Regular Program Evaluation for Ontario Colleges

### **LETTER OF INFORMATION AND CONSENT**

February 15, 2010

My name is Diane Barrafato and I am a Masters student in the MBA Program at Athabasca University. As part of the program requirements, I am completing an Applied Project and conducting research on the potential for the system-wide acceptance and use of a standardized Program Performance Model (PPM) for the 24 Ontario public colleges. The proposed model would provide evidence of regular program quality assessment and the provisions of the systematic measurement of indicators that define program outcomes have been met. Such a system would support colleges' efforts to demonstrate compliance with Criterion 5 of the Program Quality Assurance Process Audit.

The study will involve **my contacting the college PQAPA contact for each college** and requesting copies of current tools used by Ontario colleges to measure program level performance indicators (PPIs) or program performance models (PPMs) that they are using to support annual and regular assessment of individual academic programs. The collection of these current tools along with an extensive literature review will inform the next part of the study where I hope to develop a PPM that might be used by the colleges in Ontario. The collection of this information is intended solely for use by this researcher and the information discussed in the final report will be discussed in general terms under general themes without reference to any specific college model or persons.

As part of this research, I am conducting interviews with Vice Presidents Academic who have participated in a PQAPA to discover their perspectives on the adoption of this new tool as a system-wide PPM for Ontario colleges. Three VPAs from the total sample of 8 will be selected from the group of colleges that "**Met**" criterion 5; another three VPAs from a total sample of 12 will be selected from the group of colleges that "**Partially Met**" this criterion. I would like to invite you to participate in this research. I will be interviewing approximately 6 people in total.

Should you be selected by me to participate in the interview, I would like to speak with you about your experience with PQAPA process, regular program evaluation at your college and the potential for a system-wide acceptance and use of a Program Performance Model for Ontario's 24 publically funded colleges. I will be undertaking

interviews either in person or by phone starting in March, 2010. The interview would last about one hour and would be arranged for a time and place that is convenient to your schedule. There may be follow-up (e.g., phone calls or emails) to clarify the interview discussion only is required.

Involvement in this interview is entirely voluntary and there are no known or anticipated risks to your participation. You may decline to answer any of the interview questions you do not wish to answer and you may terminate the interview at any time, without negative consequences. Benefits of this study include increasing our knowledge of some of the program evaluation approaches now in use by Ontario colleges; the perceptions of the VPAs participating in this study of the effectiveness of these approaches; and the potential for system-wide adoption of a standardized PPM model.

With your permission, the interview will be recorded Sony IC digital recorder – ICK-MX20 to facilitate collection of information, and later transcribed for analysis. If you would prefer not to have the interview recorded, I will keep hand written notes during the interview. If you decide to withdraw from the interview, we will stop the interview immediately, we will debrief, and the data will be destroyed immediately and will not be used in my study.

All information you provide will be considered confidential. The only persons having access to identifiable information will be myself and my research supervisor, for the purpose of analyzing and verifying results. Tapes will be transcribed using software specific to this recorder – Digital Voice Editor Ver. 2.3 for ICD-MX/MS/ST/S/BP/BM series for Windows by an assistant employed by the researcher. The assistant will sign a Confidentiality Agreement to ensure the privacy and confidentiality of the recorded data.

No participant names or identifiers will be used in the final research reports. The collection of this information is intended solely for use by this researcher and the information discussed in the final report will be discussed in general terms under general themes without reference to any specific college model or persons.

All hard copy data will be kept in locked cabinets in my home office. All electronic data will be kept in my password protected computer at my home office. All information and records will be maintained for three years until June 2013 and then destroyed by confidential shredding, electronic records will be deleted, and tapes or audiofiles erased, when all project marking and publication requirements have been met approximately.

After all of the data have been analyzed, the existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room (DTPR) and the final research paper will be publicly available at the

DTPR. Results of the study will be included in the final project report, and will be available and communicated to interested participants early summer 2010. It is also my intention to publish the results of the study and to present the finding at meetings and conferences.

Thank you for your consideration of this invitation. If you have any questions or would like more detailed information, please contact me, Diane Barrafato, using e-mail at [diane.barrafato@mohawkcollege.ca](mailto:diane.barrafato@mohawkcollege.ca) or by phone at 905-575-1212 Ext. 4088. If you are ready to participate in the study, please complete and sign the attached Consent Form and return it to Diane Barrafato, Mohawk College, by fax at 905-575-2433 **by March 1, 2010.**

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact my research supervisor, Dr. Arnold Love, Applied Project Supervisor, Centre for Innovative Management, Athabasca University, at 416-485-2159 or by e-mail at [ajlove1@attglobal.net](mailto:ajlove1@attglobal.net).

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns resulting from your treatment as a participant in this study, please contact the Office of Research Ethics at 780-675-6718 or by e-mail to [rebsec@athabascau.ca](mailto:rebsec@athabascau.ca)

Yours truly,

Diane Barrafato

-----

## ***Appendix B: Participant Informed Consent Form***

### **PARTICIPANT CONSENT:**

I have read this Letter of Information and have had any questions answered to my satisfaction, and I will keep a copy of this letter for my records. My signature below is meant to confirm that:

- I understand the expectations and requirements of my participation in the research;
- I understand the provisions around confidentiality and anonymity;
- I understand that my participation is voluntary, and that I am free to withdraw at any time with no negative consequences;
- I am aware that I may contact the researcher, or the research supervisor, if I have any questions, concerns or complaints about the research procedures.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

By initialing this statement below,

\_\_\_\_ I am granting permission for the researcher to use a tape recorder (and/or)

\_\_\_\_ I am granting permission for the researcher to attribute my name to any quotes

\_\_\_\_ I am granting permission for my comments to be quoted, anonymously

\_\_\_\_ I am granting permission for the release of a copy of the PPI or PPM used to our college to the researcher for use in this study

Please complete the information requested below:

PQAPA College Contact: (if not same as VPA): \_\_\_\_\_

Email Address: \_\_\_\_\_

Phone Number and Ext.: \_\_\_\_\_

***Please return the completed Participant Consent Form to the Attention of Diane Barrafato by fax to 905 575-2433 by March 1, 2010.***

### **Researcher Contact Information:**

Diane Barrafato  
Fennell Campus, Rm. A108  
Mohawk College,  
135 Fennell Avenue West  
Hamilton, ON, L9C 1E9  
(905) 575-1212 x4088  
[diane.barrafato@mohawkcollege.ca](mailto:diane.barrafato@mohawkcollege.ca)

## ***Appendix C: Confidentiality Agreement***

### **Transcription's Confidentiality Agreement**

This is to confirm that, I \_\_\_\_\_ (please print name), understand that by agreeing to transcribe the audio tapes of interviews that I will keep private and confidential this data. I understand that the data is being collected solely for the purpose of the research being conducted by Diane Barrafato solely for the purpose of her applied project.

By signing this form I understand and agree to abide by the statements below:

1. I will ensure that no other person has access to the tapes or electronic files of the research data while they are in my possession.
2. I will delete all electronic records of the research data once two sets of this data on memory sticks has been provided to the researcher.
3. I will not share any information related to the research data with any other party or individual other than the principal researcher, Diane Barrafato.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix D: Document Review: PQAPA Executive Summaries**

PQAPA EXECUTIVE SUMMARIES – CRITERION 5 “PARTIALLY MET” DECISIONS	
Specific Requirement Wanting	Recommendations Made By Audit Panels
<p>5.1 Need for the college to implement a program quality management system that identifies and rectifies weaknesses, and facilitates the evolution of the program to maintain its relevance.</p>	<p>As the College develops its more formal and corporate-level quality assurance processes, it is encouraged to meet with and obtain assistance from staff involved in quality assurance activities at other colleges in order to solicit ideas to facilitate the development of their own policies, processes and tools.</p> <p>-----</p> <p>While the College is to be commended for continuing its funding for a PQAPA Project Leader, the position is currently part-time with the incumbent continuing to be responsible for a number of other functions; consideration should be given to strengthening the PQAPA function by providing additional resources to support this function</p> <p>a) Succession: With the retirement of the VP Academic (who has been a key leader in the development of the QA and academic governance systems), The college needs to ensure that the current processes and plans to complete program review and mapping and the on-going investment in related faculty development are sustained.</p> <p>b) QA culture: Further to the point in D. above, while there is a notable consistency of understanding across the college of the QA system, use of the common language and general awareness are not universal, and (as noted in the self study) there is a need for on-going diligence in ensuring the “institutional culture of continuous quality improvement” and what that means. Related to this, the team found some evidence of a lack of understanding in the use and interpretation of KPI and other data, which the new staffing in Institutional Research and the Centre for Curriculum and Professional Development (CCFD) should work on improving in the academic schools.</p> <p>1. Establish an integrated, systematic, and formal overall Quality Assurance Policy and Procedures to ensure that all programs/services are assessed comprehensively, regularly, and consistently, and that QA processes are aligned with and inform Academic Excellence, Business and Financial Planning.</p> <p>2. Establish a College Quality Committee that is inclusive of the appropriate internal stakeholders with clearly defined terms of reference that will oversee and</p>

	<p>guide the QA process.</p> <p>4. Continue to develop and implement an inclusive and comprehensive approach to communicating with all internal and external stakeholders regarding the on-going Quality Assurance initiatives underway in the College.</p> <p>-----</p> <ul style="list-style-type: none"> <li>• The Panel recommends that the College establish and publish a cycle for the review of its policies and note on the policies the dates of establishment, review and revision.</li> </ul> <p>-----</p> <p>6. It is recognized that Loyalist has recently undergone (and continues to undergo) numerous staffing changes in the academic administration area. With the pending departure of the DETL, who has played a major role in the development and execution of the pilot phases of the FPR, the positive momentum achieved to date could be at risk. It is recommended that provision for accountability of the FPR process be given high and immediate priority so as to reduce any negative “slide” effect.</p>
<ul style="list-style-type: none"> <li>o Need for a process to review programs, courses, and academic standards</li> </ul>	<p>The current Program Revitalization Process should be modified to incorporate a stronger emphasis on program quality issues</p> <p>-----</p> <p>While the College has provided two charts outlining its proposed PQAP Annual Audit and Five-Year Audit, the processes outlined require further refinement:</p> <ul style="list-style-type: none"> <li>- the processes outlined, particularly in the five-year Audit, seem focused primarily on program viability concerns rather than program quality issues</li> <li>- explicit consideration should be given to incorporating issues around performance feedback, professional development, teaching and learning research, program mapping, environmental scans and other issues that impact on program quality</li> <li>- other Ontario colleges that are more advanced in their development of program review and quality assurance processes are typically very ready and willing to share their processes with sister colleges</li> <li>- it should also be noted that there are examples of excellent quality assurance practices within some of the College’s own programs and schools that provide an excellent starting point</li> </ul> <p>-----</p> <ul style="list-style-type: none"> <li>a. That a roster of slated formal Program Reviews be developed to clearly indicate the intent and timeframes germane to the new Program Quality Assurance Process.</li> <li>b. That a reporting template be developed for use in the Program Quality Assurance Process that will effectively ensure consistent reporting of findings and recommendations. Further, an Executive Summary template might also be considered for adoption as part</li> </ul>

	<p>of this reporting mechanism, which could also be connected to the report to the Board of Governors.</p> <p>c. That consideration be given to finding ways to include non-academic areas more in the program review process.</p> <p>-----</p> <p>The College leadership team may want to think about the multi-year program review cycle and its sustainability. The current approach is efficient in providing for review of clusters of programs, but the anticipated 7-year cycle for program reviews may be too long a time period to ensure good quality assurance. This being said, the Panel recognizes the fiscal constraints under which the college operates and understands that a sustainable cycle must also be affordable</p> <p>-----</p> <ol style="list-style-type: none"> <li>1. A Guidebook or Manual for the Self Audit process could be developed to assist teams or team members new to the process.</li> <li>3. The Formal Review Process checklist could be cross-indexed with relevant policies and formal procedures thus ensuring that the faculty review teams can readily turn to existing supportive documents for clarification.</li> <li>4. The Formal Review Process checklist could, in subsequent iterations, be elaborated to include specific templates to generate a more consistent end product across the programs.</li> <li>5. A mechanism to formally tie the annual Self Audits, and the results thereby generated, to the Formal Review Process could be considered.</li> <li>6. Though an Orientation Handbook to the FRP is available through WebCT, a Faculty Mentor program (key individuals who have just completed an exemplary FRP could be assigned to guide those 'next in line') could be considered as a means of ensuring that all faculty members become well-versed or amply-skilled in meeting the program review expectations.</li> </ol> <p>-----</p> <p>The Panel recommends that the College provide to the report and review teams consistent, standard data and data analysis for use in the program reports and reviews. The provision of the data will contribute to the efficiency of the report and review teams, lessen the burden on them and contribute to more effective reports and reviews.</p> <p>-----</p> <ol style="list-style-type: none"> <li>1. As the College moves towards a comprehensive college-wide QA process, broader internal stakeholder involvement should be systematized. Specifically, student input should be more formalized in the FPR process; Academic Managers (Deans and Chairs) should be more involved throughout the FPR process; and, processes should be set in place to garner input from the various Academic</li> </ol>
--	--



	<p>Support Services (i.e., Student Success, the Library, Physical Resources, etc.) so as to complement and augment the FPR process.</p> <p>2. Subsequent developments of the FPR process should include the development of service standards and the setting of benchmarks against which to measure review outcomes.</p> <p>3. The existing FPR process though deemed thorough is seen as quite onerous or labour-intensive thus potentially challenging the ultimate sustainability of the undertaking. It is recommended that the process be continuously reviewed with an eye to streamlining the data-gathering and analysis phases.</p>
<p>o Need for a process to monitor improvement following review, and</p>	<p>The College will want to make sure that its feedback processes are documented and included in annual program reflection and planning, as well as in the cyclical review. We note that, concurrent with the Panel's audit, the College was completing a review of its governance structure, and understand that a number of changes have been announced to underline the accountability of the Vice-President Academic Excellence (VPAE) for the implementation of the quality assurance program, and in particular, of recommendations from the program review process. The changes include the creation of a new Academic Management Committee composed of all the Deans, which will meet monthly and be chaired by the VPAE.</p> <p>-----</p> <p>1. It will be important to continue development of initiatives such as having the Program Planning and Review Committee (PPRC) look at results of program reviews and implementation of recommendations, and strengthening faculty evaluation.</p> <p>2. As the Formal Review Process evolves, it is recommended that mechanisms be set in place to ensure systematic follow up on recommendations.</p> <p>-----</p> <p>Formalize expectations about program responsibilities for annual review processes between 5 year Program Reviews.</p>
<p>o Need for a process to determine continuation or suspension of courses or programs;</p>	
<p>Need for a provision for the systematic measurement of indicators that program outcomes have been met;</p>	<p>It will be helpful to place more emphasis on quality assessment within departments as part of the annual cycle (e.g., KPI results, student feedback, maintaining active Program Advisory Committees).</p> <p>7. Though cursorily included presently, the Formal Review Process could more formally integrate the various Student Services KPI data, and other evidence of student support service effectiveness, into its checklist.</p>

	<p>-----</p> <p>5. A more formal and consistent mechanism to utilize the various KPI data in the FPR process should be established.</p>
<p>Evidence that the views of learners, employers, professional and trade bodies, and academic communities are taken into account;</p>	<p>That a formal Complaints Policy and Procedure be considered to handle general student complaints. Evidence provided by students suggested that no formal complaints policy or process currently exists.</p> <p>-----</p> <p>4. Develop processes for every program to ensure that student concerns are monitored informally and issues brought to the attention of Senior Management more frequently and responsively than through Student Feedback Questionnaires (SFQ) and KPI (Key Performance Indicators) questionnaires.</p> <p>5. Ensure that students know processes for expressing concerns and complaints about a program, beyond the processes for conflict resolution about individual students with individual professors.</p>
<p>Evidence changes to programs and courses are managed to keep them current with provincial standards and relevant professional body requirements; and,</p>	<p>In order to achieve the goals identified in the previous section, the team recommends that more support be provided to the Curriculum Development and Program Renewal unit, to expedite the very valuable program mapping process, with a goal to complete all programs by the time of the next audit</p>
<p>Need for processes to ensure that recommendations arising from previous reviews have been considered and addressed.</p>	<p>That within the new Program Management Process clear accountability mechanisms be developed so as to ensure that any action stemming from the assessment and data-gathering efforts are duly followed-up or completed. Further, we suggest that such accountability might be systematically tied to the Deans' annual performance goals.</p>
<p>5.2 Documentation and other evidence arising from program quality management processes is maintained and used in on-going quality management.</p>	<p>That the new Policies that are under review be time tagged to indicate date of development or revision, date of effectiveness, and date of next renewal.</p>
<p>5.3 Graduates, employers, students, and other stakeholders indicate satisfaction with the program.</p>	

**Appendix E: Semi-Structured Interview Tool****Interview Question Script**

College: \_\_\_\_\_

VPA: \_\_\_\_\_

Date: \_\_\_\_\_

€ On-Site Interview

€ By Telephone

*This interview will explore the following themes and topics:***A. Introductory Questions**

1. Have you been able to review the interview materials I sent to you a few days ago and familiarize yourself with the interview topics and proposed model?  
**A) Yes    B) No**
2. Did you participate in the PQAPA preparations and site visit here at your college?  
**A) Yes    B) No**
3. Can you provide a brief description of the impact the PQAPA process has had on the quality assurance practices in your college?

**B. Current program evaluation model at your college:**

4. What is your perception that the program evaluation approach used by your college, is satisfactory for the purposes of PQAPA reporting and your views as to the reasons it is or is not satisfactory?  
*So, then is it correct to conclude that you think (substitute from scale below) with the program evaluation approach used by your college?*  
**A) Very Satisfactory    B) Satisfactory    C) Unsatisfactory    D) Very Unsatisfactory**
5. In your opinion, what are the types of management decisions that are informed by the program evaluation approach used by your college?
6. In your opinion, are all key stakeholder views reflected in the program evaluation approach used by your college? Please expand on the gaps if you think there are stakeholders who are not reflected in the current approach.

*So, then is it correct to conclude that you think the program evaluation approach used by your college is (substitute scale below) of the views of key stakeholders?***A) Very Reflective    B) Somewhat Reflective    C) Minimally Reflective    D) Not Reflective at All**

7. In your opinion, does the program evaluation approach used here allow for the objective measurement of performance and offers benchmarks for the expected performance?

*So then, is it correct to say that you (substitute from scale below) that the program evaluation approach used at your college allows for the objective measurement of performance and offers benchmarks of expected performance?***A) Strongly Agree    B) Agree    C) Not Sure    D) Disagree    E) Strongly Disagree**

**c) Proposed System – Level Program Evaluation Model:**

8. Do you agree with the concept of a common program evaluation model for use across the college system such as the proposed Scorecard to annually evaluate program performance using standardized performance indicators, system-level data wherever possible and system-level benchmarks?

So then, is it correct to say that you (substitute from scale below) with the concept of adopting a common program evaluation model for use across the college system in Ontario?

**A) Strongly Agree    B) Agree    C) Not Sure    D) Disagree    E) Strongly Disagree**

If response is C), D) or E) go to Question 10

- 9) In your view, what benefits do you see with this approach for the college system? [Go to 10.](#)
- 10) In your view, what problems or concerns do you have with this approach for colleges?
- 11) Referring to the Scorecard @ A Glance sheet, the proposed model suggests 4 categories or perspectives; specifically, Accountability, Internal Business Processes, Innovation & Learning and Financial. To what extent do you agree or disagree with including these four perspectives in a model of regular evaluation of college programs?

So then, is it correct to say that you (substitute from scale below) with the 4 suggested perspectives proposed in this model for the regular review and evaluation of college programs?

**A) Strongly Agree    B) Agree    C) Not Sure    D) Disagree    E) Strongly Disagree**

- 12) In your opinion, do you agree the all 4 perspectives should receive equal weight in the scoring process and should all be considered of equal importance and attention in the annual review and evaluation of college programs?

So then, is it correct to say that you (substitute from scale below) with treating the 4 suggested perspectives with equal importance and weight in the model?

**A) Strongly Agree    B) Agree    C) Not Sure    D) Disagree    E) Strongly Disagree**

- 13) In your opinion, do you believe the Vision Statement (read it) is appropriate for a system-level scorecard for the evaluation of college programs?

So then, is it correct to say that you (substitute from scale below) with the Vision Statement in the model?

**A) Strongly Agree    B) Agree    C) Not Sure    D) Disagree    E) Strongly Disagree**

- 14) In your opinion, do you believe the Goal Statement for each perspective (please review these) are appropriate for a system-level scorecard for the evaluation of college programs?

So then, is it correct to say that you (substitute from scale below) with the Goal Statements in the model?

**B) Strongly Agree    B) Agree    C) Not Sure    D) Disagree    E) Strongly Disagree**

- 15) Referring to the Indicators @ A Glance sheet, to what extent do you agree or disagree with the proposed indicators and measures of each indicator in each of the perspectives?

So then, is it correct to say that you (substitute from scale below) with the proposed indicators and measures in the model?

**A) Agree with all   B) Agree with some   D) Disagree with some   E) Strongly Disagree with all**

- 16) Referring to the Data Sources @ A Glance Sheet, many of the indicators are based on data obtained from the provincial KPI surveys, such as the, Student Satisfaction Survey, Graduate Outcome Satisfaction Survey and Employer Satisfaction Survey. In your opinion, do you think that these are accurate and feasible data sources to evaluate program performance at the program and at the system level?

So then, is it correct to say that you (substitute from scale below) with using these data sources in the proposed model?

**A) Strongly Agree      B) Agree      C) Not Sure      D) Disagree      E) Strongly Disagree**

- 17) For many of the indicators the proposed evaluation benchmark is the Provincial Average for like programs (e.g. Programs with the same MTCU #). In your opinion, do you think this is an appropriate benchmark to use in the proposed model wherever possible?

**A) Yes      B) No      C) Not Sure**

- 18) Overall, in your opinion, do you think that the proposed model would offer an effective mechanism to support the continuous improvement, renewal and review of College programs?

**A) Yes      B) No      C) Not Sure**

- 19) How confident are you that the proposed model could be implemented at your college?

So then, is it correct to say that you are (substitute from scale below) that the proposed model could be implemented at your college?

**A) Very Confident      B) Somewhat Confident      C) Not Sure      D) Not Confident At All**

- 20) In your opinion, would you say that a system-level program evaluation model is desirable?

**A) Yes      B) No      C) Don't Know**

- 21) In your opinion, what would you recommend as the next steps to moving this initiative forward?

- 22) Do you have any other comments or questions on the proposed model or this study?

**ATTACHMENT 1: DETAILED VERSION - PROPOSED COLLEGE PROVINCIAL PROGRAM PERFORMANCE SCORECARD**

Weight 25%	<h1>Accountability</h1> <p>To provide access and a learning experience that has met the expectations of our students, graduates, employers and other stakeholders.</p>					
<i>Attribute of Performance</i>	<i>Performance Indicator</i>	<i>Specific Measurement</i>	<i>Evaluation Benchmark</i>	<i>Target</i>	<i>Data Source</i>	<i>Reporting Year(s)</i>
<b>1.1 Program Excellence</b> <ul style="list-style-type: none"> <li>Output-Final-Quantity</li> </ul>	1.1.1 GRADUATION RATE (IF APPLICABLE).	Two-year average based on the proportion of students who completed one-year programs within two years, two-year programs within three years, and three year programs within five years. For degree programs, graduation rate is based on 7 years from program start. Grad rate = $\frac{\#grads}{\#entrants} * 100$	Provincial average for indicator over same two year period for like programs.	Best in province or a 3% year over year improvement	Data compiled by college as per MTCU guidelines	Based on most current two year average(e.g. 08-09 and, 07-08)
	<ul style="list-style-type: none"> <li>Output-Intermediate-Quantity</li> </ul>	1.1.2 STUDENT RETENTION				
1.1.2.1 1 <sup>st</sup> to 2 <sup>nd</sup> Year		Three-year average calculated using the November 1 audit enrolment data from fall of year 1 and the November 1 audit data from fall of year 2.  Retention = $\frac{\text{Year 2 Nov 1}^{\text{st}} \text{ enrolment}}{\text{Year 1 Nov 1}^{\text{st}} \text{ enrolment}} \text{ times } 100.$	College goals as indicated in the MYAA	Met or Exceed college goal as indicated in the MYAA or a 3% year over year improvement.	College registration and student management system, i.e. Banner	Based on most current three year average(e.g. 2006 - 2009)  Percentages achieved for 1.1.2.1, 1.1.2.2, and 1.1.2.3 are summed and divided by 3 to provide one final
1.1.2.2 2 <sup>nd</sup> to 3 <sup>rd</sup> Year	Calculated using the November 1 audit enrolment data from fall of year 2 and					

		<p>the November 1 audit data from fall of year 3.</p> <p>Retention = Year 3 Nov 1<sup>st</sup> enrolment divided by Year 2 Nov 1<sup>st</sup> enrolment times 100.</p>				percentage score for 1.1.2 Student Retention indicator.
	1.1.2.3 3 <sup>rd</sup> to 4 <sup>th</sup> year (if applicable)	<p>Calculated using the November 1 audit enrolment data from fall of year 3 and the November 1 audit data from fall of year 4.</p> <p>Retention = Year 4 Nov 1<sup>st</sup> enrolment divided by Year 3 Nov 1<sup>st</sup> enrolment times 100.</p>				
<ul style="list-style-type: none"> <li>Output-Intermediate-Client Satisfaction</li> </ul>	1.1.3 SATISFACTION WITH TEACHING:	<p>Q17: Teachers' presentation of the subject material.</p> <p>Q18: Helpfulness of teachers outside of class.</p> <p>Q19: Feedback about your progress</p> <p># of students satisfied/very satisfied divided by the number of respondents to Q 17, 18 &amp; Q19 on the Ministry student survey</p>	Provincial average for indicator for like programs	Best in province or a 3% year over year improvement	KPI: Student Satisfaction Survey	Current Reporting Year
<ul style="list-style-type: none"> <li>Output – Intermediate-Client Satisfaction</li> </ul>	1.1.4 ESSENTIAL SKILLS DEVELOPMENT	<p>Writing, speaking, computers, problem solving, working with others, math (SS KPI # 6-11)</p> <p>% of students who are satisfied and very satisfied with the following skills developed in their program: writing skills, speaking skills, problem solving skills, ability to work with others, math</p>	Provincial average for indicator for all like programs	Best in province or a 3% year over year improvement	KPI: Student Satisfaction Survey	Current reporting Year.

		skills, and computer skills. Academic preparation reflects the average of all six skills.				
<ul style="list-style-type: none"> <li>Outcome–Client Satisfaction</li> </ul>	1.1.5 ACHIEVEMENT OF LEARNING OUTCOMES.					
	1.1.5.1 Q#32 - When you first started working after graduation, how satisfied were you with your educational preparation for the following skills and abilities (see A-K below)? (GOS Q#32). A Specific job-related knowledge B Specific job-related skills C Oral communication D Written communications E Comprehension F Math skills G Computer skills H Critical thinking I Problem solving J Research and analysis K Teamwork	# of graduates satisfied/very satisfied divided by the number of respondents to Q32 A & B + Q32C-K respectively, on the Ministry graduate outcome survey. Note: A and B percent scores are weighted 30% each and the remaining percent scores for C-K are summed and divided by 9. The combined percent score for C-K are weighted over the remaining 40% of score.	Provincial average for indicator for like programs.	Best in province or a 3% year over year improvement	Data will be obtained from the Ministry-approved graduate outcome, graduate satisfaction survey and employer satisfaction survey.	Current Reporting Year  Percentages achieved for 1.1.5.1.and 1.1.5.2.are summed and divided by 2 to provide one final percentage score for 1.1.5 Achievement of Learning Outcomes indicator.
	1.1.5.2. Q#73 - Employer satisfaction with graduate educational preparation for the	# of employers satisfied/very satisfied divided by the number of respondents to Q73 A & B + Q73 C-K respectively, on the Ministry				



	<p>following skills and abilities.</p> <p>A Specific job-related knowledge</p> <p>B Specific job-related skills</p> <p>C Oral communication</p> <p>D Written communications</p> <p>E Comprehension</p> <p>F Math skills</p> <p>G Computer skills</p> <p>H Critical thinking</p> <p>I Problem solving</p> <p>J Research and analysis</p> <p>K Teamwork</p>	<p>graduate outcome survey.</p> <p>Note: A and B percent scores are weighted 30% each and the remaining percent scores for C-K are summed and divided by 9. The combined percent score for C-K are weighted over the remaining 40% of score.</p>				
<ul style="list-style-type: none"> <li>Outcome-Quality</li> </ul>	<p>1.1.6 STUDENT PASS RATE ON PROFESSIONAL EXAMINATIONS (IF APPLICABLE).</p>	<p>% of students who pass professional exams. Applicable only to a small number of programs. Includes: CAMRT, ARDMS, RNAO, PRN, PETQ, PWTN, PARA, BSCN, PNDP, MLTY, MRTY, DENA, DENH</p>	<p>Average national or provincial pass rate.</p>	<p>Best in national or provincial pass rate or a 3% year over year improvement</p>	<p>Official program examination results provided by professional association or registry or certification body.</p>	<p>Cumulative pass rate report on all examination sittings in current year.</p> <p>Performance reported but not included in calculation of final score achieved for "Program excellence" category.</p>
	<p>1.1.7 PROGRAM ACCREDITATION</p>	<p>Current official accreditation status award to program.</p>	<p>To meet the minimum criteria to be awarded an</p>	<p>To be awarded highest level of</p>	<p>Official Program</p>	<p>Based on program</p>

	STANDING (IF APPLICABLE).	Accrediting Body Number of outstanding Issues not met.	accredited program.	accreditation with no outstanding issues.	Assessment Report provided by the Accreditation Survey Team and Approved by the official committee of the Accrediting Body	assessment report from most current on-site visit.  Performance reported but not included in calculation of final score achieved for “Program excellence” category
<b>1.2 GRADUATE SATISFACTION</b> <ul style="list-style-type: none"> <li>• Outcome-Client Satisfaction</li> </ul>	<p>Q21: To what extent did the skills you developed during college help you get your job?</p> <p>Q34: How would you rate your satisfaction with the usefulness of your college education in achieving your goals after graduation?</p> <p>Q35: Would you recommend the college program to someone else or not?</p>	<p># of graduates over a three year period who indicated helpful and extremely helpful for Q21; useful/extremely useful for Q34; and yes for Q35 divided by the total number of respondents over the same three year period times 100. Reported as an overall percentage.</p>	<p>Provincial average for indicator over same three year period for like programs.</p>	<p>Best in province or a 3% year over year improvement</p>	<p>KPI: Graduate Outcome /Graduate Satisfaction Survey</p>	<p>Based on most current three year average(e.g. 08-09, 07-08, 06-07)</p>

<b>1.3 EMPLOYER /GRADUATE FIT</b> <ul style="list-style-type: none"> <li>• Outcome-Client Satisfaction</li> </ul>	1.3.1 Employer Satisfaction – How would you rate your satisfaction with this employee’s overall college preparation for the type of work he/she was doing? (Q#74)	# of employers over a three year period who indicated satisfied or very satisfied divided by the total number of respondents over the same three year period times 100. Reported as an overall percentage.	Provincial average for indicator over same three year period for like programs.	Best in province or a 3% year over year improvement Best in province or a 3% year over year improvement	KPI: Employer Satisfaction Survey	Based on most current three year average(e.g. 08-09, 07-08, 06-07)  Percentages achieved for 1.3.1, 1.3.2, and 1.3.3, are summed and divided by 3 to provide one final percentage score for 1.3 Employer /Graduate Fit.
	1.3.2 Graduate Employment(Q# 6)	% of graduates over a three year period contacted 6 months after graduation who were employed during the reference week			KPI: Graduate Outcome/Graduate Satisfaction Survey	
	1.3.3 Graduate Employment – Full Time Program Related Question 16 – response greater than or equal to 30 hours a week and Question 20 – response 1 or 2 and Question 6 – response 1 or 2.	% of graduates over a three year period contacted 6 month after graduation who were employed full-time in a field related or partially related to their Field of Study during the reference week.				
<b>1.4 ACCESS</b>	Participation Rates: 1.4.1 .1 Aboriginal	% increase/decrease of the total program enrolled in reporting year compared to the pervious reporting year of	College goals as indicated in the MYAA	Met or Exceed college goals as indicated in the MYAA	Data source as indicated in the MYAA	Comparative change between the current reporting year to

<ul style="list-style-type: none"> <li>Input – Equity</li> </ul>		Aboriginal students				pervious reporting year.	
	1.4.1.2	Student with Disabilities	% increase/decrease of the total program enrolled in reporting year compared to the pervious reporting year of students with disabilities.				Performance reported but not included in calculation of final score achieved for “Accountability” category.
	1.4.1.3	First Generation	% increase/decrease of the total program enrolled in reporting year compared to the pervious reporting year of First Generation students				
	1.4.1.4	Immigrant Students	% increase/decrease of the total program enrolled in reporting year compared to the pervious reporting year of New Canadians/Immigrants students				
	1.4.1.5	Mature Students	% increase/decrease of the total program enrolled in reporting year compared to the pervious reporting year of Mature students				
<ul style="list-style-type: none"> <li>Input-Access</li> </ul>	1.4.2	Turnaways	Number of qualified students applying to a program who are not admitted.	Provincial average for indicator for like programs.	Lower than provincial average for like programs.	OCAS Data	Current reporting year.
	1.4.3	Accessibility	Demand for new FTE spaces in the program relative to the previous years.	Provincial average for indicator for like programs.	Higher than provincial average for like programs.		Comparative change between the current reporting year to pervious reporting year.

Calculation of program overall score for **Accountability** category:

Percentage scores for indicators 1.1, 1.2, 1.3 are summed and divided by 3. The final percentage score is multiplied by 25% to achieve an overall program score out of 25% for this category. Indicator 1.4 (shaded grey) is not included at this time in the calculation of final score achieved for the Accountability category.

Weight 25%	<h2 style="text-align: center;">Internal Business Processes</h2> <p style="text-align: center;"><b>To employ processes that promote continuous renewal and development college programs, student satisfaction and the effective use of college resources and services.</b></p>					
<i>Attribute of Performance</i>	<i>Performance Indicator</i>	<i>Specific Measurement</i>	<i>Evaluation Benchmark</i>	<i>Target</i>	<i>Data Source</i>	<i>Reporting Year(s)</i>
<b>2.1 PROGRAM DEMAND AND ENROLMENT MANAGEMENT</b> <ul style="list-style-type: none"> <li>• Process – Efficiency</li> </ul>	2.1.1 Registrant to Applicant Conversion Rate	The number of offers sent out to achieve one registration. This score is an average of the past three years.	Provincial average for indicator for like programs.	Best in province or a 3% year over year improvement	Data compile by college using OCAS data and registration data.	Based on most current three year average(e.g. 2006 - 2009)
	2.1.2 Enrolment Management	This measurement provides an indication of how well the program met its planned enrolment target for all semesters. Reported as a percentage of the actual enrolment achieved divided by the planned enrolment target.	To achieve 100% of the planned enrolment target set for this program.	To achieve 100% of the planned enrolment target set for this program.	Data will be compiled using the planned enrolment targets as per the colleges' Approved Enrolment Plan and the registration data.	Current Reporting Year
<b>2.2 Space Utilization</b> <ul style="list-style-type: none"> <li>• Process - Efficiency</li> </ul>	2.2 Space Utilization Rate	Program average utilization rate of its total space allocation.	Provincial average for indicator for like programs.	College average utilization rate.	Data compiled by Ontario Colleges Facilities Management Association.	Current reporting year.
<b>2.3 Teaching Function</b>	2.3.1 Student/Staff Ratios	The ratio of full-time students to FTE academic staff. The ratio of part-time students to FTE academic staff.	Provincial average for indicator for like programs.	Provincial average for indicator for like programs.	Faculty Standard Workload Formula Reports	Current Reporting Year.

<ul style="list-style-type: none"> <li>Process - Efficiency</li> </ul>						
	2.3.2 Teaching Efficiency	Average TCH per week per FTE academic staff				
<b>2.4 Curriculum Relevance</b> <ul style="list-style-type: none"> <li>Process - Relevance</li> </ul>	2.4.1 Student Feedback	# of students satisfied/very satisfied divided by the number of respondents to Q4 and Q14. Q4: This program includes topics relevant to your future success. Q14: Overall, your program is giving you knowledge and skills that will be useful in your career.	Provincial average for indicator for like programs	Best in province or a 3% year over year improvement	KPI: Student Satisfaction Survey	Current Reporting Year.  Percentages achieved for 2.4.1, and 2.4.2 are summed and divided by 2 to provide one final percentage score for 2.4 Curriculum Relevance
	2.4.2 Advisory Committee Feedback	Measure on a standardized scale of advisory committee satisfaction with the nature and demonstrated processes in place to ensure the relevance of curriculum.			NEW KPI: Advisory Committee Survey	
<b>2.5 Educational Technology</b> <ul style="list-style-type: none"> <li>Process – Efficiency &amp; Access</li> </ul>	2.5.1 Learning Management System	Percentage of courses in program of studies using LMS	Provincial average for indicator for like programs	Best in province or a 3% year over year improvement	College LMS Report	Percentages achieved for 2.5.1, 2.5.2 and 2.5.3, are summed and divided by 3 to provide one final percentage score for 2.5 Educational Technology
	2.5.2 Simulation Software	Percentage of course outcomes linked to use of simulation software/systems.			College Course Outline Repository Report	
	2.5.3 E-learning	Percentage of courses in program of studies available as e-learning			College LMS Report	
<p>Calculation of program overall score for <b>Internal Business Processes</b> category:  Percentage scores for indicators 2.1, 2.3, 2.4 and 2.5 are summed and divided by 4. The final percentage score is multiplied by 25% to achieve an overall program score out of 25% for this category. Indicator shaded grey 2.2 is not included in the calculation of final score achieved for the Internal business Processes category.</p>						

Weight 25%	<h1 style="margin: 0;">Innovation and Learning</h1> <p style="margin: 0; color: #0056b3;">To foster a culture of life-long learning, inquiry and innovation in all college programs.</p>					
<i>Attribute of Performance</i>	<i>Performance Indicator</i>	<i>Specific Measurement</i>	<i>Evaluation Benchmark</i>	<i>Target</i>	<i>Data Source</i>	<i>Reporting Year(s)</i>
<b>3.1 ACADEMIC STAFF FEEDBACK</b> <ul style="list-style-type: none"> <li>• Input – Client Satisfaction</li> </ul>	3.1.1 Academic staff satisfaction with their work and educational environment and resources (See Suggested questions Below)	% of academic staff very satisfied/satisfied with questions related to these themes.	Provincial average for indicator for all like programs	Best in province or a 3% year over year improvement	Requires MTCU and Colleges to adopt a system level Academic Staff Feedback Survey conducted annually as part of the KPI performance indicators for Ontario Colleges.	Current Reporting Year  Percentages achieved for 3.1.1, 3.1.2 and 3.1.3, are summed and divided by 3 to provide one final percentage score for 3.1 Faculty Feedback Rate.
	3.1.2 Academic Staff Engagement and Professional Development (See suggested questions below)					
	3.1.3 Overall Academic Staff Satisfaction (See suggested questions below)					
<b>3.2 RESEARCH</b> <ul style="list-style-type: none"> <li>• Input - Quantity</li> </ul>	3.2.1 Research (if applicable).	% of academic staff engaged in research within the past three year period	To be determined by college	To be determined by college	Data compiled by college academic research department	Based on most current three year average(e.g. 08-09, 07-08, 06-07)
<ul style="list-style-type: none"> <li>• Process - Quantity</li> </ul>	3.2.2 Research Grant Proposals (if applicable).	# of research grant proposals submitted by staff to funding agencies within the past three year period	To be determined by college	To be determined by college	Data compiled by college academic research	Based on most current three year average(e.g. 08-09, 07-08, 06-

					department	07)
<ul style="list-style-type: none"> <li>Output-Intermediate-Efficiency</li> </ul>	3.2.3 Research Grants Awarded (if applicable).	% of research grant proposals that were awarded a research grant within the past three years	To be determined by college	To be determined by college	Data compiled by college academic research department	Based on most current three year average(e.g. 08-09, 07-08, 06-07)
<b>3.3 INFORMAL LEARNING</b> <ul style="list-style-type: none"> <li>Input - Quantity</li> </ul>	Student Engagement: 3.3.1 - # of Students involved in community outreach projects 3.3.2 - # of Students included in Research (if applicable). 3.3.3 - # of students involved in competitions	Total # of students involved in community outreach, research and/or competitions supported or supervised by academic staff outside of normal academic requirements within the past academic year.	To be determined by college	To be determined by college	Data compiled by Office of the Dean for the school/faculty program belongs.	Current Reporting Year
	Academic Staff: 3.3.4 - # of projects (community, research, competitions) initiated by academic staff 3.3.5 - # of academic staff involved in projects (community, research, competitions)	Total # of projects and total # of academic staff involved in community outreach, research and/or competitions outside of normal academic requirements within the past academic year.	To be determined by college	To be determined by college	Data compiled by Office of the Dean for the school/faculty program belongs.	Current Reporting Year
<b>3.4 (FORMAL) EXPERIENTIAL LEARNING</b> <ul style="list-style-type: none"> <li>Output – Intermediate -</li> </ul>	3.4.1. Q21: Quality of lab/shop learning	# of students satisfied/very satisfied divided by the number of respondents to Q 21 on the Ministry student satisfaction survey	Provincial average for indicator for like programs.	Best in province or a 3% year over year improvement	KPI: Student Satisfaction Survey	Current Reporting Year
	3.4.2 Q23: Field work, clinical experiences, and	# of students satisfied/very satisfied divided by the number of respondents to Q				



Client Satisfaction	co-op work terms	23 on the Ministry student satisfaction survey				
<p><b>3.5 HIGHER LEVEL SKILL DEVELOPMENT</b></p> <ul style="list-style-type: none"> <li>Outcome – Client Satisfaction</li> </ul>	<p>3.5.1 Q#32 - Graduate satisfaction with your educational preparation for the following skills and abilities.  H. Critical Thinking  I. Problem Solving  J. Research and analysis  K. Teamwork  P. Creative and Innovative  Q. Adaptable</p> <p>3.5.2 Q#73 - Employer satisfaction with the graduates' educational preparation for the following skills and abilities.  H. Critical Thinking  I. Problem Solving  J. Research and analysis  K. Teamwork  P. Creative and Innovative  Q. Adaptable</p>	<p># of graduates satisfied/very satisfied divided by the number of respondents to Q32 H., I., J., K., P., and Q times 100, respectively, on the Ministry graduate outcome survey.</p> <p># of employers satisfied/very satisfied divided by the number of respondents to Q73 H., I., J., K., P., and Q times 100, respectively, on the Ministry Employer Satisfaction survey.</p>	<p>Provincial average for indicator for like programs.</p>	<p>Best in province or a 3% year over year improvement</p>	<p>Data will be obtained from the Ministry-approved graduate outcome, graduate satisfaction survey and employer satisfaction survey.</p>	<p>Current Reporting Year</p> <p>Percentages achieved for 3.5.1 and 3.5.2 are summed and divided by 2 to provide one final percentage score for 3.5 Graduate and Employer Satisfaction with Foundational Skills Related to Innovation and Learning.</p>
<p>Calculation of program overall score for <b>Innovation and Learning</b> category:  Percentage scores for indicators 3.1, 3.4.1, 3.5 are summed and divided by 3. The final percentage score is multiplied by 25% to achieve an overall program score out of 25% for this category. Indicators shaded grey (3.2, 3.3, 3.4.2) is not included in the calculation of final score achieved for the Innovation and Learning category.</p>						

Weight 25%	<b>Financial</b>					
<b>To ensure the college programs remains viable and financially sound.</b>						
<i>Attribute of Performance</i>	<i>Performance Indicator</i>	<i>Specific Measurement</i>	<i>Evaluation Benchmark</i>	<i>Target</i>	<i>Data Source</i>	<i>Reporting Year(s)</i>
<b>4.1 TOTAL GROSS REVENUE AND TYPE</b> <ul style="list-style-type: none"> <li>• Input-Efficiency</li> <li>• Input - Equity</li> </ul>	4.1.1 Total Gross Program Revenue	Suggested: Total Revenue for the program will be based on the tuition based on the approved BOG schedule and grant portion is determined based on MTCU guidelines and represents the approximate value of WFU.	N/A	N/A	Data compiled by college finance unit.	Current Reporting Year
	4.1.2 Tuition Rates	Tuition Type: basic or differentiated will be indicated in report. Tuition Rate: Tuition/Student FTE/Term				
	4.1.3 Tuition Rates	Tuition fees as a percentage of total academic educational costs by program.				
	4.1.3 REVENUE PER STUDENT FTE	Suggested: Is calculated by taking total gross revenue divided by total student FTE. To convert FT enrolments to FTE = FT Fiscal year headcount/2 To convert PT enrolments to FTE = Total SCH/700	Provincial average for indicator for all like programs	Provincial average for indicator for all like programs	Data compiled by college finance unit.	Current Reporting Year
<b>4.2 TOTAL DIRECT PROGRAM</b>	4.2.1 Total Direct Costs	Suggested: Expenses will reflect direct costs associated with each specific program/program cluster (i.e. no assignment of overhead).	N/A	N/A	Data compiled by college finance unit.	Current Reporting Year

<b>EXPENSES</b>  <ul style="list-style-type: none"> <li>Process-Efficiency</li> </ul>		Where distribution of admin costs to the academic program level is required TCH will be the allocation basis.				
	4.2.2 EXPENSES PER STUDENT FTE	Suggested: Is calculated by taking total gross expenses divided by total student FTE. To convert FT enrolments to FTE = FT Fiscal year headcount/2 To convert PT enrolments to FTE = Total SCH/700	Provincial average for indicator for all like programs	Provincial average for indicator for all like programs	Data compiled by college finance unit.	Current Reporting Year
<b>4.3 CONTRIBUTION MARGIN</b>  <ul style="list-style-type: none"> <li>Output-Final-Efficient</li> </ul>	4.3.1 GROSS DOLLAR CONTRIBUTION	Suggested: The measure for Gross Dollar Contribution is defined as Gross Revenue – Gross Expenses	N/A	N/A	Data compiled by college finance unit.	Current Reporting Year
	4.3.2 PERCENTAGE GROSS CONTRIBUTION MARGIN	Suggested: The measure for Percentage Gross Contribution is defined as (Gross Revenue – Gross Expenses)/Student FTE. To convert FT enrolments to FTE = FT Fiscal year headcount/2 To convert PT enrolments to FTE = Total SCH/700	Provincial average for indicator for all like programs	To be determined by college. For gross contribution to overhead usually set at a minimum of 25% to a desired 35%.	Data compiled by college finance unit.	Current Reporting Year
<b>4.4 COST – SPACE</b>  <ul style="list-style-type: none"> <li>Process-Efficiency</li> </ul>	4.4 TOTAL PROGRAM SPACE COST	Suggested: The measure for Total Program Space Cost is defined as (college average Net Assignable Square Feet (NASF) Cost times total NASF used by program.)	Provincial average for indicator for all like programs	N/A	Data compiled by Ontario Colleges Facilities Manages Association	
<p>Calculation of program overall score for <b>Financial</b> category is based solely on indicator 4.3. A program which achieves or exceeds the target will received the full points applicable – 25%. Points are awarded based on the percentage of target achieved. For example, a program with a 30% gross contribution margin for a college target of 35% would receive a score of 17.1 in the Financial category. (30/35 = 85.5% x 25% = 21.4/25%) Indicators shaded grey (4.1, 4.2 and 4.4) is not included in the calculation of final score achieved for the Financial category.</p>						

<b>Program Performance Summary</b>	
<i>Performance Category</i>	<i>Score</i>
<b>Accountability</b>	/25
<b>Internal Business Processes</b>	/25
<b>Innovation and Learning</b>	/25
<b>Financial</b>	/25
<b>Total Score</b>	<b>/100</b>

<b>Overall Program Standing</b>			
	<b>Current Year: Example 08/09</b>	<b>Previous Year: Example 07-08</b>	<b>Two Years Ago: Example 06-07</b>
<b>Program of Merit</b> Criterion: A program with a score of 20% or greater in all categories would be given this designation Program is performing above average.			
<b>Tier 1 Program</b> Criterion: A program which has only one category with a score below 20% and no scores below 15% would be given a Tier 1 designation. Program is performing in the range of average.			
<b>Tier 2 Program</b> Criterion: A program has two or more categories with a score below 20% is given a Tier 2 designation. The program is performing below average.			

## Sample Provincial Faculty Feedback Survey

(Adapted with permission from Cambrian College Faculty Feedback Survey, winter 2010.)

### 3.1.1 Faculty Satisfaction with Their Work and Educational Environment and Resources

Please rate the importance of and your satisfaction with the following:

Work Related:

1. The program level of courses I teach.
2. The overall level of academic preparedness of the students I teach.
3. Institutional support for developing and improving teaching and learning practices.
4. Support from colleagues.
5. Support from your academic administrator.

Educational Environment and Resources

6. Equipment required for teaching.
7. Resources needed for teaching.
8. Facilities needed to teach.
9. Classroom/Lab size
10. Classroom environment (e.g. room temperature, availability of smart technology, white/blackboard space.
11. Learning Management System (e.g. Blackboard, Desire2Learn)

### 3.1.2. Faculty Engagement and Professional Development

Please indicate the extent to which you agree or disagree with the following statements:

12. I feel that faculty input on major decisions is encouraged in my department.
13. I feel that change and innovation is encouraged in my department.

Please rate the importance of and your satisfaction with the following questions:

14. Opportunities to incorporate new, innovative ideas and practices into the curriculum of your program courses.
15. Opportunities to be involved in course assignment planning.

16. Opportunities to be involved in new course / program development.
17. Opportunities for professional development.
18. Financial support provided by your college for professional development.
19. Opportunities to collaborate with other faculty (e.g. internal and external to your program area and /or the college).
20. Level of training and support for technology.

### **3.1.3 Overall Faculty Satisfaction**

Please indicate the extent to which you agree or disagree with the following:

21. Students are well prepared for my classes.
22. Student attendance is generally good.
23. Students generally demonstrate commitment and engagement in class.

Please rate your satisfaction with regards to the following:

24. Overall, how satisfied are you with your school?
25. Overall, how satisfied are you with the quality of your program?