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**Conceptualizing Commitment to Quality in an Elementary School : Factor Analysis of the Effect of  
Communication on Employee Attitudes and Behaviours for Quality Management**

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Conceptualizing Commitment to Quality in an Elementary School:  
Factor analysis of the effect of communication on  
employee attitudes and behaviours for Quality Management

Carine Lavoie

Thesis submitted to the  
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## ABSTRACT

Although the literature establishes the importance of employee commitment and communication, there is a lack of empirical research focusing on communication's precise role for Quality Management (QM).

Within the context of change, this thesis demonstrates that communication contributes to commitment by targeting both attitudes and behaviours. These findings were used to build a content analysis identified communication initiatives within a school's QM program and an interview linked those initiatives to desired changes in attitudes and in behaviours to build an employee survey assessing communication and commitment.

A factorial analysis revealed that three communication factors – Involvement, Learning Culture and Formal Communication – contributed to changes in both attitudes and behaviours suggesting that organizations can emphasize these factors in their communication plans to set the foundation for commitment to quality.

This study focuses on the role of communication in creating commitment to quality specifically through attitudes and behaviours. Future research would be valuable in validating this model within other types of organizations.

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**LEGEND**

ABEF	Australian Business Excellence Framework
AQA	Australian Quality Award
ASQ	American Society for Quality
CAE	Canada Award for Excellence
CEEP	Criteria for Excellence in Education Program
CSF	Critical Success Factor
EFQM	European Foundation for Quality Management
MBNQA	Malcolm Baldrige National Quality Award
NQI	National Quality Institute
PD	Professional Development
POC	Planned Organizational Change
PEP	Progressive Excellence Program
QM	Quality Management
SPSS	Statistical Package for the Social Sciences
TQM	Total Quality Management
VM P.S.	Vincent Massey Public School

## INTRODUCTION

In the 1980s, many organizations turned to Total Quality Management (TQM) to improve their competitive advantage and ensure their survival (Beer, 2003; Bergquist, Fredriksson & Svensson, 2005; Kondo, 2002). Described as a set of tools or management practices (Bullock, 2005) involving all functions and levels of the organization (Flynn, Schroeder & Sakakibara, 1994 p. 342), TQM supported efforts to reduce defects and errors within processes thus improving the quality of products and services. Despite its popularity in the 80s, by the next decade, practitioners had become disillusioned because TQM was not delivering expected results (Hendricks & Singhal, 2000). At the time, many of them cited communication as an important cause of implementation failure of TQM projects (Klassen, 1993; Sandelands, 1994; Saumier, n.d.). They even described communication as the “glue [...] to support the quality effort” (Higginson & Waxler, 1994 p. 4.) and the “shadow lurking behind everything attempted” (Nelson & Coxhead, 1997 p. 38) to illustrate the importance of effective communication.

Despite TQM’s shortcomings and its waning popularity, organizations continue to implement TQM principles (Gallear & Ghobadian, 2004) through various Quality Management (QM) Frameworks, certification programs and national competitions. Furthermore, scholars and QM practitioners alike continue to support the claim that communication is an essential ingredient for the successful deployment of QM. For example, a meta-analysis of QM research observed that communication was mentioned among the Critical Success Factors (CSFs) for successful implementation (Sila & Ebrahimpour, 2003); CSFs are practices, actions or pre-conditions necessary for successful QM (Saraph, Benson & Schroeder, 1989; Yusof & Aspinwall, 1999). In another analysis of the characteristics of QM implementation, 20% of all QM implementation initiatives were categorized as “Communication & Measurement” activities

(along with Management, Market, People and Process focus) (Ghobadian & Gallear, 2001) indicating that the role of communication for QM is not one to be ignored.

Effective internal communication is believed to be essential for QM. However these claims are rarely supported by empirical evidence. In fact, by the end of the 1990s, understanding of the nature of internal communication and the reasons for its importance within QM was still vague (Allen & Brady, 1997). Compared to the attention received by other CSFs, communication is rarely analyzed in detail and, as noted by Sila & Ebrahimpour (2003), we could benefit from a better understanding of the communication mechanisms, channels and methods used by organizations during QM deployment.

Given the great volume of literature dedicated to the analysis of the antecedents of QM in the last ten years (See Black & Porter, 1996; Claver, Tarí & Molina, 2003; Mellahi & Eyuboglu, 2001; Yusof & Aspinwall, 1999), it is surprising to see a lack of empirical research focusing specifically on internal communication as a CSF for QM. This void is also unexpected especially if 'soft' or human CSFs like communication are accepted as strong predictors or enablers of QM implementation success (Ahire, Golhar & Waller, 1996; Bullock, 2005; Powell, 1995).

One reason for the absence of research on communication as a CSF of QM may come from the perception that communication is embedded within most CSFs therefore is not considered to be an independent criterion for success. It is also possible that communication has not received much attention within QM literature because it has indirect effects on the success of organizational QM implementation. The purpose of this research is to observe and explore communication patterns within a QM program, to understand the role of internal communication within a framework where its purpose is to create commitment to quality and to describe the

characteristics of successful internal communication initiatives that nurture employee commitment to quality.

## 1. Theoretical Framework

This thesis will present several concepts in the literature review that are crucial to this discussion: Quality Management (QM), Employee Commitment and Internal Communication. As illustrated in *Figure 1*, these interrelated constructs will form the basis for this study. While the purpose of this thesis is not to validate the model presented below, it will provide a framework and set the stage through which these concepts can be understood and observed. Therefore the links between each component of the framework are illustrated with dotted lines in *Figure 1*.

The first concept, **QM**, is often characterized as a large-scale change (McGregor, 2004; Packard, 1995; Reger, Gustafson, Demarie & Mullane, 1994) affecting both technostructural processes (departmental structure or systems) (Dunn & Swierczek, 1977; Tenkasi & Chesmore, 2003) and human processes (members of the organization) (Bennis, 1965). QM depends on employee commitment to quality and internal communication which are among the 'soft' QM CSFs believed to have a particularly important impact on QM implementation success because of their direct link to people (Babakus, Yavas, Karatepe & Avci, 2003; Borsese, McDowall & Andrade, 2003; Schalk & van Dijk, 2005).

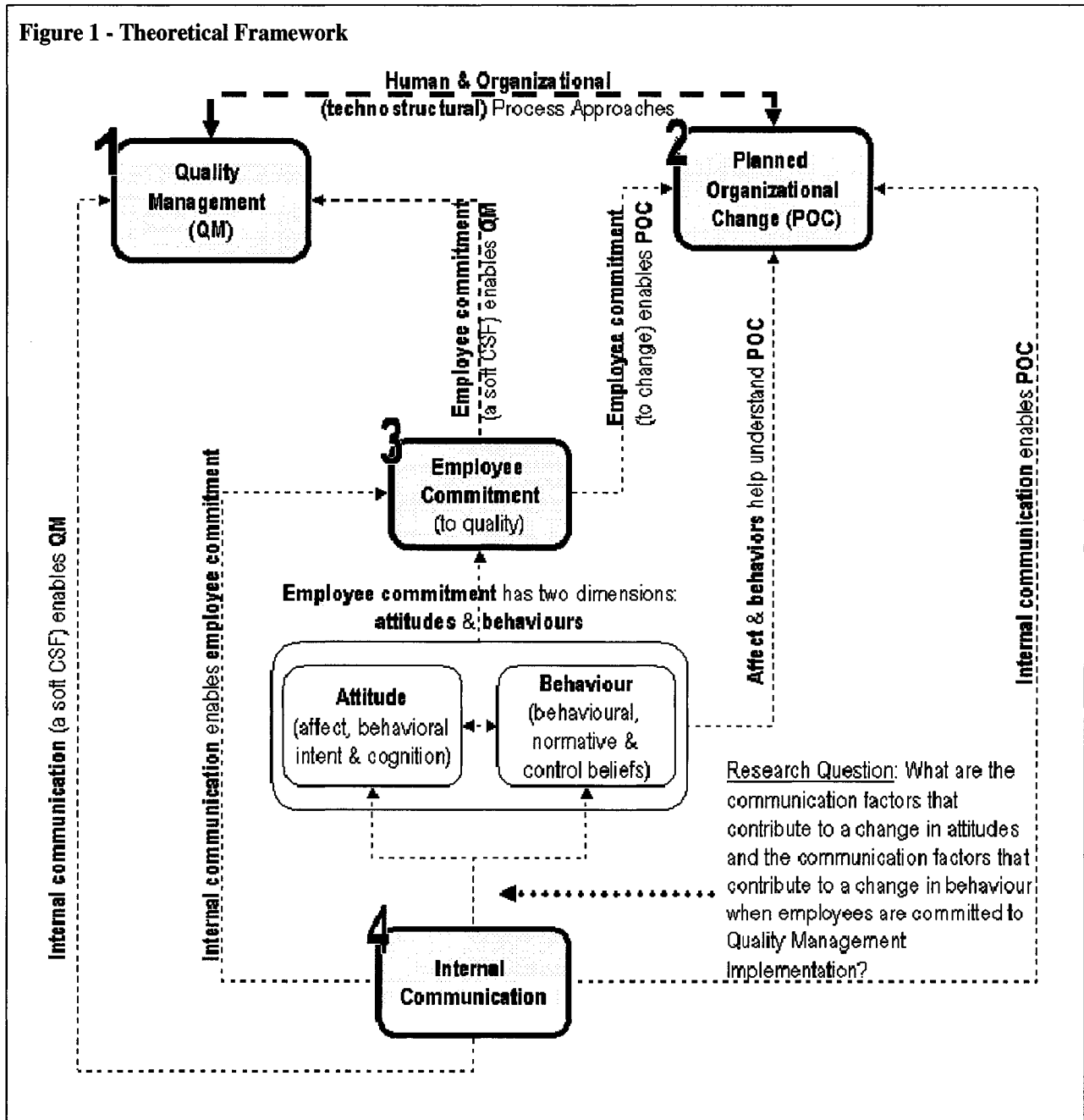
Before elaborating on employee commitment and internal communication, it is interesting to note that QM and the theory of Planned Organizational Change (POC) have many similarities. POC is the result of an intentional decision made by the organization to introduce a change which will improve performance and convert knowledge or systems into practice

(Timmerman, 2003). *Figure 1* shows that, just like QM, POC impacts technostructural and human processes (Kezar, 2001). At the same time, communication is a key issue for POC (Timmerman, 2003) in mitigating risks associated with employees' resistance to change through their commitment to change. An additional characteristic of POC noted by Armenakis & Bedeian (1999) is that it can be understood through employee affective (feelings and satisfaction) and behavioural reactions (coping strategies, tasks and practices), as demonstrated in *Figure 1* with the dotted line connecting these two concepts.

Also illustrated in *Figure 1*, the affective / behavioural approach used to understand POC is discernable within the **employee commitment** literature in psychology where the definition of Attitudinal Commitment integrates attitudes and behaviours: "a strong belief in and acceptance of the organization's goals and values" (attitudes) and the "willingness to exert considerable effort on behalf of the organization" (behaviours) (Mowday et al., 1979). Although POC refers to 'affect' and Attitudinal Commitment refers to 'attitudes', there is evidence that they are linked constructs (Isen & Baron, 1991). Furthermore, a popular definition of attitudes integrates affect along with behavioural intention and cognition (Lilienfeld & Alant, 2002; Myers, 1983; Zillig, Hemenover & Dienstbier, 2002). As mentioned earlier, commitment to change reduces employee resistance during POC. Furthermore, it is identified as a soft or 'human' CSF for QM.

As will be seen in this thesis, **internal communication** is an enabler of employee commitment. It is also a necessary component of POC and QM implementation which is indicated in *Figure 1* with a dotted line connecting these constructs. However, within the POC literature, there have been calls for research to help organizations prepare employees faced with change and in understanding communication during POC (Armenakis & Bedeian, 1999;

Timmerman, 2003). The precise role of internal communication for QM is also unclear in the literature and within this model.



## 2. Research Questions

As noted in the above figure, this thesis is based on a theoretical framework where QM (1) is a POC endeavor (2) which depends on ensuring employee commitment to quality (3) which, in turn, is composed of the attitudes and behaviours of the employees of the organization. Changing these attitudes and behaviours (and thus creating commitment to quality) is achieved through internal communication (4).

This thesis explores the characteristics of internal communication within the context of QM. Its objectives are to:

1. Observe and explore communication patterns within a QM program.
2. Understand the role of internal communication within a framework where its purpose is to create commitment to quality
3. Describe the characteristics of successful internal communication initiatives that nurture employee commitment to quality.

To understand the role of internal communication initiatives for employee commitment to quality, the following research questions are posed:

1. What are the communication factors that contribute to a change in **attitudes** when employees are committed to Quality Management Implementation?
2. What are the communication factors that contribute to a change in **behaviour** when employees are committed to Quality Management Implementation?

## 3. Methodology

A combination of research methods were used to collect information necessary to answer the above questions. A primary school which has successfully attained the third level the

National Quality Institute (NQi) Progressive Excellence Program (PEP) was selected as a case for this research. The NQi is a recognized authority on QM in Canada. It developed the PEP to guide organizations with QM implementation through progressive goals where organizations are certified and recognized for their QM efforts (National Quality Institute, 2000c). An NQi PEP Level III certification confirms that the organization has progressed to the implementation, improvement and results phase of QM implementation.

A content analysis of the school's NQi application provided us with a list of communication initiatives and their characteristics in contributing to their QM program. Second, a semi-directed interview with the individual responsible for the QM implementation (the school's Principal) helped further describe the communication initiatives. Thus, the results of the interview are used to create an employee questionnaire which assessed each communication initiatives' effect on changing respondents' attitudes and behaviours identified by the Principal. The questionnaire also included an instrument to measure individual levels of commitment to quality. Finally, factor analysis identified patterns among these variables.

#### **4. Overview**

This thesis is divided in several chapters. The literature review will offer a more detailed analysis of the links between QM, employee commitment and internal communication along with a description of the theoretical framework which guided this study. After reviewing the research objectives and research questions, the next chapter presents the methodology used to answer those questions including the organizational setting and participants, sources of evidence, research methods, data collection, the content analysis, interview, questionnaire and factor analysis. Once the procedures used to collect data are outlined, the thesis presents and discusses

findings related to the survey, levels of commitment to quality, the characteristics of communication initiatives and the communication factors identified for the attitude and behaviour dimensions of employee commitment.

## LITERATURE REVIEW

This chapter provides a review of theoretical and research literature related to Quality Management, Employee Commitment and Internal Communication. After defining Quality Management (QM), it will be demonstrated how its implementation represents a Planned Organizational Change (POC) initiative and the components of QM will be described. Two critical success factors (CSFs) of QM include employee commitment and internal communication. Attitudinal Commitment is described through its reliance on changing attitudes and behaviours. An explanation for the importance of Internal Communication for QM and POC will follow along with the establishment of the link between internal communication and employee commitment. A model illustrating employee commitment's mediating role between internal communication and QM concludes this chapter.

### 1. Quality Management (QM)

A definition for Quality Management (QM) is presented next, demonstrating how QM can be conceptualized as a change effort; the thesis then discusses its effect on technostructural and human processes within the organization, ending with a description of the main components of QM including Frameworks, Principles & Concepts, Drivers & Criteria and Critical Success Factors (CSFs).

#### *a. QM Definition*

*i. QM defined.* QM is an integrated approach for continuous improvement and for exceeding customer expectations where all functions and all levels of the organization are involved (Flynn et al., 1994 p. 342). While definitions of QM differ, it is generally agreed that

QM is concerned with improving profitability and competitiveness, organizational effectiveness and customer satisfaction (Berry, 1991).

*ii. QM implementation. Implementation* has been described as a process beginning with the decision to use tools, techniques, processes or methods and putting them into practice until they become a stable part of the organization (Tornatzky & Johnson, 1982). Therefore, QM implementation is a process through which a set of tools or management practices (Bullock, 2005) are deployed and become embedded into the organization to improve its performance.

*iii. Planned Organizational Change (POC).* When the leaders of an organization decide to pay formal attention to the quality of products or services offered by the organization, they acknowledge the need to change the way things are done. Therefore, a common approach to quality implementation is to conceptualize it as a large-scale and long-term political, technological, structural and cultural change (McGregor, 2004; Packard, 1995; Reger et al., 1994). In fact, several researchers believe that QM presents many elements of change (Kivimaki et al., 1997; Lascelles & Dale, 1992; Lewis, 2000; McGregor, 2004; Nelson & Coxhead, 1997; Redman & Grieves, 1999; Salem, Barclay & Hoffman, 2003; Sullivan, 2005). QM fits the definition of a POC because it is intentionally introduced by management and it is often focused on the methods and techniques of the change process (Goodman, 1982 p. 2-5). In fact, POC is “planned” because managers are often the ones who initiate a deliberate change with a specific end such as improving the performance of the organization (Orlikowski, 1996; Tenkasi & Chesmore, 2003). As seen in subsequent sections, QM and POC share several characteristics and antecedents for successful implementation. Because QM is an example of a POC effort, success factors identified in the literature for POC should also be applicable to QM.

*iv. Technostructural (hard) & human (soft) processes.* Gallar and Ghobadian (2004) recently observed that QM has adopted the strengths of two different schools of management. They note that the scientific system-oriented school of thought integrates process, measurement, evaluation and problem-solving tools into QM while the human behavioural social system is evident within QM for its concern for such things as people, leadership and communication.

This is similar to the effects of POC. POC's influence on the organization can be observed through technostructural approaches while changes affecting individuals and interpersonal relationships are linked to human process approaches (Goodman, 1982 p. 5; Kezar, 2001). *Technostructure* refers to organizational changes which can involve departmental structure, processes, procedures, rules, benchmarking, machinery or technological systems while *human process approaches* are associated with members of the organization who are affected by changes in roles resulting from restructuring or by the introduction of new values, ideas or philosophies (Dunn & Swierczek, 1977; Tenkasi & Chesmore, 2003).

Although it was seen that POC influences both technostructural and human processes and that QM stems from two distinct schools of management, the Quality literature uses different terms to describe a similar concept. Technostructural processes are similar to 'hard' factors of quality which can be represented by quantitative, "objective" information flowing through formal channels and resulting in documentary evidence. At the opposite end of the continuum are 'soft' (human) factors, associated with non-measurable, subjective or qualitative measures often using informal channels such as verbal communication (Goddard, Mannion & Smith, 1999). Within service quality, one study made use of the distinction between non-interpersonal (hard) factors (competence, reliability, functionality, etc.) and interpersonal (soft) attributes

(attentiveness, care, commitment and communication) (Driver & Johnston, 2001). Thus, hard QM factors include the design of the organization, of products and of services and are concerned with administration and management. They also include people, skills, knowledge and supplies as well as technical enablers such as policies, process control, systems, inspections and expenditures. On the other hand, soft or human QM factors include communication, commitment, motivation, culture, involvement, team-work and relations.

After we describe QM Frameworks, it will be demonstrated that the Critical Success Factors (CSFs) of QM can also be characterized as technostructural (hard) processes (i.e. policy & strategy, processes, measurement, planning, performance) or human (soft) processes (leadership, learning & development, teamwork).

#### *b. QM Frameworks*

Whether for quality or for any other reason, implementing large-scale change within an organization presents numerous challenges. QM Frameworks facilitate this change process by guiding organizations through quality implementation and improvement. *QM Frameworks* are holistic programs, models or philosophies that set a structure for QM implementation and, in some cases, propose appropriate quality tools to ensure that the organization achieves its Quality goals.

The American Society for Quality (ASQ) lists six frameworks it calls “organization-wide approaches”. They include (1) Six Sigma whose aim is to reduce defects, (2) Benchmarking to identify and implement best practices, (3) Lean for the elimination of waste, (4) Total Quality Management (TQM) to focus on customer satisfaction through the involvement of all levels of the organization, (5) the Malcolm Baldrige National Quality Award (MBNQA) in the United

States to reward organizations who implement the Baldrige Criteria for Performance Excellence, and (6) the ISO 9000 standard which supports documentation requirements to maintain quality (American Society for Quality, 2006).

Along with the ISO 9000 standard, additional evaluation or award models and certification-based programs can be added to the ASQ's list. For example, the Deming Prize is awarded to organizations that have achieved performance results by implementing TQM (Union of Japanese Scientists and Engineers, 2004). Canada's National Quality Institute's (NQI) Progressive Excellence Program (PEP) is another example of a model where organizations can be certified and recognized for their QM efforts.

QM Frameworks can also be categorized according to geography. The European Foundation for Quality Management's (EFQM) Excellence Model is an international example. In addition to the MBNQA in the US, the Australian Quality Award (AQA) (Zink, Schmidt & Voß, 1997) and the Australian Business Excellence Framework (ABEF) are examples of national programs. In Canada, the NQI developed criteria which can be used to apply for a Canada Award for Excellence (CAE). Although differences between international and national programs come mainly from language, culture and context, these Frameworks all have the same aim to continuously improve performance (Perry, n. d.). Examples of QM Frameworks have been selected and included in *Table 1* for illustration purposes.

Though QM Frameworks differ in approach, geography or outcome and they may have certification, recognition or process change as their desired objectives, they usually employ underlying principles to dictate the spirit or philosophy on which the QM efforts should be built. These have been called "Principles" or "Concepts" and are shown in *Table 1*. In addition, many QM Frameworks define the essential elements of quality. *Drivers* or *Criteria* are the

requirements of the Frameworks and ensure that the organization implements changes in key areas to successfully introduce a QM culture. The lower portion of *Table 1* shows how the weight of scoring allocated to each factor can differ across Frameworks.

**Table 1 - Comparison of Organization-wide Approaches to QM**

<b>QM frameworks</b>	<b>Australian Quality Award *</b>	<b>Baldrige National Quality Program (US)**</b>	<b>European Foundation for Quality Management Excellence Model***</b>	<b>National Quality Institute (NQI) (Canada)****</b>
<b>Principles and Concepts</b>	<i>Not explicitly stated</i>	<b>Core Values and Concepts</b> 1. Visionary leadership 2. Customer-driven excellence 3. Organizational and personal learning 4. Valuing employees & partners 5. Agility 6. Focus on the future 7. Managing for innovation 8. Management by fact 9. Social responsibility 10. Focus on results and creating value 11. Systems perspective	<b>Fundamental Concepts</b> 1. Results Orientation 2. Customer Focus 3. Leadership & Constancy of Purpose 4. Management by Processes & Facts 5. People Development & Involvement 6. Continuous Learning, Improvements & Innovations 7. Partnership Development 8. Corporate Social Responsibility	<b>Principles of Excellence</b> 1. Leadership through involvement 2. Primary focus on stakeholder / customer and the market place 3. Cooperation and teamwork 4. Prevention based process management 5. Factual approach to decision making 6. Continuous learning and people involvement 7. Focus on continuous improvement and breakthrough thinking 8. Fulfill obligations to all stakeholders and society
<b>Drivers &amp; Criteria</b>	<b>Criteria</b> 1. Leadership (14%) 2. Strategy, policy & planning (8%) 3. Information and analysis (8%) 4. People (20%) 5. Customer focus (18%) 6. Quality of process, product & service (20%) 7. Org. performance (12%) Total: 100%	<b>Criteria</b> 1. Leadership (12%) 2. Strategic Planning (8.5%) 3. Customer & Market Focus (8.5%) 4. Measurement, Analysis, & Knowledge Management (9%) 5. Human Resource Focus (8.5%) 6. Process Management (8.5%) 7. Results (45%) Total: 100%	<b>Model Criteria</b> 1. Leadership (10%) 2. Policy and Strategy (8%) 3. People (9%) 4. Partnerships and Resources (9%) 5. Processes (14%) 6. Customer Results (20%) 7. People Results (9%) 8. Society Results (6%) 9. Key Performance Results (15%) Total: 100%	<b>Drivers (Canadian Framework for Business Excellence)</b> 1. Leadership (10%) 2. Planning (8%) 3. Customer Focus (9%) 4. People Focus (14%) 5. Process Management (11%) 6. Supplier / Partner Focus (6%) 7. Business Results (42%) Total: 100%

\* Zink et al., 1997    \*\*Baldrige National Quality Program, 2006    \*\*\*European Foundation for Quality Management, 2003  
 \*\*\*\*National Quality Institute, 2000b and Perry, n. d.

*c. Critical Success Factors (CSFs)*

As already seen, the success of POC initiatives such as QM depend on technostructural (hard) and human (soft) processes. Since it is believed that QM implementation success depends on the way quality is implemented and on the organization's degree of concern for the employees who are enacting those changes (Higginson & Waxler, 1994; Schalk & van Dijk, 2005), the successful application of Critical Success Factors (CSFs) determines whether QM implementation success is possible.

*CSFs* are management practices, actions or pre-conditions necessary for successful QM (Saraph et al., 1989; Yusof & Aspinwall, 1999). They are components of QM along with tools, techniques and methods (Tarí, 2005) and are sometimes named 'indices', 'key elements', 'core dimensions', 'critical factors', 'steps' or 'points' (Dow, Samson & Ford, 1999). Although Drivers are pre-defined within a QM Framework, CSFs apply to QM in general. For that reason, some research uses the Drivers and Criteria from specific Frameworks to define CSFs (Claver et al., 2003). As seen next, research has resulted in an attempt to identify and describe the characteristics of CSFs for QM.

*i. Identifying CSFs.* Empirical research to review QM assessment approaches and validate QM practices against quality outcomes only began in 1988 (Dow et al., 1999). That research led to the identification of CSFs of QM. As noted by several authors, (Ahire et al., 1996; Saraph et al., 1989; Tarí, 2005), attempts to identify CSFs include one or a combination of methods like literature reviews of works from the so-called "Quality Gurus" such as Philip Crosby (1979), Deming (1991), Juran (1988), and Ishikawa (1976).

It also includes validation from QM experts and practitioners (Black & Porter, 1996), case studies (Mellahi & Eyuboglu, 2001), and empirical research (Ahire et al., 1996; Black & Porter, 1996; Saraph et al., 1989). Several studies are grounded within TQM and the MBNQA (Malcolm Baldrige National Quality Award) frameworks due to their popularity.

*ii. CSF themes.* One limitation of the quality literature is the lack of consensus between researchers and within QM theory in naming and defining CSFs (Dow et al., 1999) although there are recurring themes. For example, Claver, Tarí, and Molina (2003) and Yusof and Aspinwall (1999) are among researchers who studied QM CSFs. Many CSFs identified by these two groups were similar which allowed us to compare each item from the two lists; the lists were then integrated and each item was described as follows:

1. Management leadership, commitment and involvement (communication for commitment, motivation & change, policies and corporate culture)
2. Human resource management (employee relations, employee involvement, commitment and people management)
3. Education, training and learning (problem-solving skills, team work, internal knowledge through communication in all directions)
4. Fact-based management (communication of data, internal information usage, improvement, measurement & feedback)
5. Organizational design (the quality department, teamwork structure & continuous improvement system, cross-functional communication)

6. Customer focus (customer satisfaction, customer requirements, employee involvement in quality tasks through cooperation with customers)
7. Supplier management (supplier collaboration and partnerships & their management)
8. Products & services design (product or service design and external interface management)
9. Process management (operating procedures, systems, prevention & planning)
10. Tools & techniques (benchmarking, Statistical Process Control, product quality, resources)

*iii. Hard & soft CSFs.* It has been established earlier that CSFs can be categorized as 'hard' or 'soft'. Although they are both essential factors for QM implementation, soft CSFs appear to have a stronger impact on QM than hard CSFs. For example, when examining the impact of CSFs, a study of American manufacturing plants found that soft CSFs - employee empowerment, training and involvement - showed a strong correlation with product quality (Ahire et al., 1996). Research conducted by Powell (1995) concluded that only three factors ((1) executive commitment to the QM philosophy, (2) open organization which includes empowered teams, open horizontal communication and flexible hierarchy and (3) employee empowerment which includes employee involvement in planning and decision-making) influenced both QM performance and organizational performance, leading to the conclusion that tools and techniques do not result in performance improvement without the presence of behavioural factors. All three of the crucial CSFs fit the soft CSF definition.

Similar conclusions were reached in a study conducted in Australia where only workforce commitment, shared vision and customer focus were significantly correlated

with QM results (Dow et al., 1999). Without discounting the legitimacy of hard CSFs, the authors of this study cautioned against their indiscriminant adoption. Although Bullock & Rahman (2005) disagreed with previous studies by finding that some hard CSFs were, in fact, linked to performance, they nevertheless confirmed that soft CSFs (workforce commitment, shared vision, customer focus, teams and cooperative supplier relations) were related to QM success. They also found that three hard CSFs (“Just in Time” principles, technology utilization and continuous improvement enablers) were linked to soft CSFs, leading to the conclusion that the implementation of hard CSFs was more successful when supported by soft CSFs.

As you will see, POC’s success depends on reducing individuals’ resistance to change through human processes; this provides an additional explanation for the usefulness of soft factors in facilitating change required for QM implementation.

*iv. Commitment and communication as soft CSFs.* As seen in the above list of ten CSF themes, employee commitment and internal communication are frequently cited in support of QM CSFs. The importance of these two soft factors has also been mentioned by several researchers and practitioners in the literature. For example, one study found that communication and employee commitment and attitude were among the critical organizational factors of TQM (Issac, Rajendran & Anantharaman, 2004). In an article about the foundations of QM, Higginson & Waxler (1994) highlighted the importance of both the “commitment and communication glue (...) to support the quality effort” (1994).

One meta-analysis of QM success factors found that workforce commitment (which included commitment to quality, positive attitude toward quality and behavioural disposition to quality) was a factor in studies in four countries (Sila & Ebrahimpour,

2003). Another study concluded that employee commitment and “dedication to continuous improvement” were among the top five “necessary conditions” for QM implementation (Gallear & Ghobadian, 2004). The importance of commitment is not surprising given that, as seen earlier, POC and QM both represent a significant change imposed through new management philosophies, labor relations, reward systems, habits and methods (Hendricks & Singhal, 1996). QM is built on the principle that each employee should be responsible for quality (Issac et al., 2004), therefore employee commitment influences effective QM implementation by encouraging employees to buy into the change initiative, thus facilitating the POC effort (Allen & Brady, 1997; Babakus et al., 2003; Dow et al., 1999; Higginson & Waxler, 1994; Nelson & Coxhead, 1997; Schalk & van Dijk, 2005). Because POC results in major disruptions for employees, potential human and organizational costs must be mitigated (Lewis, 1999; Paula & James, 2001) through positive behaviour and climate management (Dunn & Swierczek, 1977; Mossholder, Settoon, Armenakis & Harris, 2000) which are both believed to alleviate those disruptions.

In addition to commitment, internal communication was found to play an essential role in the implementation of QM and the improvement of organizational performance. Sila & Ebrahimpour (2003) observed that communication factors for QM involved top-down, bottom-up and inter-departmental communication for trust, knowledge-sharing, clarity of customer requirements and QM adoption. Communication also supports process control, effective decision-making and thus enhanced performance within the context of QM (Issac et al., 2004). Several other researchers have identified communication as an enabler of QM (Allen & Brady, 1997; Borsese et al., 2003; Fletcher, 1999; Hendricks &

Singhal, 1996; Nelson & Coxhead, 1997; Rodwell, Kienzle & Shadur, 1998; Saumier, n.d.; Tourish & Irving, 1995). However, as noted in the introduction, there have been calls for more research support understanding of the exact role of communication for QM.

It has been argued earlier that soft (human or interpersonal) CSFs are strong predictors of QM implementation success because they contribute to appropriate employee activities and support the achievement of other essential hard (technostructural or non-interpersonal) CSFs for QM. I have also demonstrated that among important soft CSFs for QM are employee commitment and internal communication. Given the importance of those soft CSFs, the next two sections explore the role and importance of employee commitment and internal communication to successfully implement and manage a quality program.

## **2. Employee Commitment**

As previously seen, employee commitment is one of the main soft CSFs identified as important for successfully managing quality within an organization. If the employees who are responsible for implementing changes within production and service processes are not willing to change and exert a certain level of effort, it will be very difficult for the organization to achieve desired quality improvements. Workforce commitment ensures that these employees support the change effort through appropriate attitudes and behaviours.

Much research has attempted to understand how organizational commitment is generated and maintained and this issue has been studied from different perspectives. One

of these, Attitudinal Commitment (Mathieu & Zajac, 1990), will be explored in greater detail below.

*a. Attitudinal Commitment*

Some researchers have suggested that organizational commitment consists of an attitude related to the organization (Allen & Brady, 1997; McCaul, Hinsz & McCaul, 1995). *Attitudinal Commitment* has been described as an emotional attachment through identification and involvement (Putti, Aryee & Liang, 1989) or as a psychological bond and a motivation to attain the organization's goals and adhere to its values (Buchanan, 1974; Decotiis & Summers, 1987). Another definition describes Attitudinal Commitment as "a state in which an individual identifies with a particular organization and its goals and wishes to maintain membership in order to facilitate these goals" (Mowday et al., 1979). Armenakis & Bedeian (1999) describe psychological attachment to the organization as compliance commitment (whereby individuals comply with organizational rules), identification commitment (social attachment or affiliation) and internalization commitment (institutionalization of values).

Attitudinal Commitment often emphasizes characteristics concerned with both attitudes and behaviours (Meyer & Allen, 1991). In fact, one of the most frequently cited definition for attitudinal commitment is concerned with commitment through both attitudes and behaviour. It describes *employee commitment* as "a strong belief in and acceptance of the organization's goals and values" (attitudes) and the "willingness to exert considerable effort on behalf of the organization" (behaviour) (Mowday et al.,

1979). This is the definition of Attitudinal Commitment which will be adopted for this research.

*i. Attitude.* Within the context of commitment, attitudes have been described as goal and value internalization and acceptance (Decotiis & Summers, 1987). More generally, *attitude* is thought to include components such as beliefs or goal acceptance and intentions (McCaul et al., 1995). It has also been defined as “a predisposition towards some object including one’s beliefs, feelings and behavior tendencies concerning the object” (Myers, 1983 p. 35).

Fishbein & Ajzen (1980) present a model of attitudes categorizing responses as affective, cognitive or as conative. The *affective* component includes feelings or emotions expressed towards an object or situation while the *cognitive* component includes thoughts, beliefs or ideas. Although Fishbein and Ajzen also refer to “*conation*”, many researchers (Crites, Fabrigar & Petty, 1994; Myers, 1983; Pooley & O'Connor, 2000) simply use “behaviour” to describe this other attitudinal characteristic. The behavioral component is represented through a tendency or intention to act in a particular way which can be measured through verbal statements about the behaviour (Rosenberg, 1960). This three-part model is often referred to as the “ABCs” of attitudes (Lilienfeld & Alant, 2002; Myers, 1983; Zillig, Hemenover & Dienstbier, 2002).

*ii. Behaviour.* Although a general construct of attitudes includes behavioral intentions and tendencies, *actual behaviour*, hereinafter referred simply to “behaviour”, can be defined as overt actions that are performed and observed in “single, repeated or multiple acts” (Fishbein & Ajzen, 1975). *Behavioural commitment* represents the extent to which the individual uses his or her role to attain the organization’s goals and values

(Decotiis & Summers, 1987) or the extent to which he or she is willing to work for the company (Kim & Rowley, 2005). Not unlike the attitudinal construct of attitudes seen above, the *Theory of Planned Behaviour* maintains that actions are guided by beliefs: “beliefs about the likely consequences or other attributes of the behaviour (behavioural beliefs), beliefs about the normative expectations of other people (normative beliefs), and beliefs about the presence of factors that may further or hinder performance of the behaviour (control beliefs)” (Ajzen, 2002).

#### *b. Role of Employee Commitment*

Employee commitment plays a central role in organizational outcomes because it is linked to a variety of quality pre-requisites including productivity, attendance, job performance, motivation and willingness to participate in education or training (Decotiis & Summers, 1987; Jaramillo, Mulki & Marshall, 2005; Mathieu & Zajac, 1990; Petty, McGee & Cavender, 1984; Postmes, Tanis & De Wit, 2001; Schalk & van Dijk, 2005). Commitment also supports many of the QM CSFs presented earlier. Commitment represents soft or human attributes which, as seen earlier, are believed to be excellent predictors of QM success. In addition, because QM is a POC initiative, commitment supports the achievement of QM goals by reducing employees’ resistance to the change.

QM has already been framed as a drastic organizational change effort. Thus, employee commitment becomes important in ensuring that this change is embraced by the entire workforce (Hendricks & Singhal, 1996). Within the context of POC, Attitudinal Commitment is crucial in increasing employee trust and in creating a sense of ownership and shared responsibility to stimulate individuals’ willingness to change (Ghobadian &

Gallear, 2001). Postmes, Tanis & De Wit (2001) have also argued that commitment and identification are interchangeable terms suggesting that interpersonal relations based on individuals identifying with their social groups are an important consideration within the Affective Commitment construct.

If POC depends on employee commitment to change, this commitment must be created by management who, by articulating an “ideal” vision for the future that is neither too different from the present identity nor too threatening or impossible to achieve, ensures that employees remain (or become) committed to the vision of achieving the desired change (Hitt, Keats, Harback & Nixon, 1994). The notion that workforce commitment is composed of attitudes and behaviours suggests that management must pay attention to both dimensions to ensure that the measures they put in place to promote commitment are effective.

The attitude-behaviour definition of commitment is of particular interest for QM when its implementation is described as a POC endeavor. To implement quality, it is necessary to “shift the employee mindset and behaviour away from exclusive focus on production or service delivery toward a mindset that integrates concern and responsibility for quality” (Grover & Walker, 2003 p. 8). In fact, one method cited in the literature to understand POC is through affective and behavioural outcome monitoring (Armenakis & Bedeian, 1999). Studies interested in *affective* reactions to organizational change have focused on, among others, employee feelings and emotional reactions toward the changes, stress levels, job satisfaction, job absenteeism and commitment; on the *behavioural* side of POC research, studies have examined reactions to change including adjustment and adaptation processes, coping strategies, organizational capabilities,

strategic tasks, HR practice and improvement of organizational deficiencies (Armenakis & Bedeian, 1999). Because the enactment of behaviour depends on cognitive interpretations of the organization, understanding this behaviour is also important in learning to manage change (Bartunek, as cited in Reger et al., 1994). Robertson, Roberts & Poras (1993) have recognized that work behaviours are not often mentioned in research. However, they concluded that there is a relationship between individual behaviour change and organizational performance change. This echoes another study (Isen & Baron, 1991) confirming that positive affect influences the perception of tasks, behaviours and commitment.

Although “affective reactions” have just been referred to as a component of POC, there is evidence that affect is linked to attitudes (Isen & Baron, 1991). Furthermore, as has been seen, affect is one of the three components believed to contribute to the formation of attitudes. All of this suggests that affect and attitudes are connected constructs and supports the argument that POC (and QM by extension) along with commitment are aligned when it comes to changing employee attitudes and behaviours to ensure enhanced organizational performance.

Now that it has been established that employee commitment supports both POC and QM implementation through its concern for supporting and fulfilling human needs, the next section of this literature review will examine the role of another soft QM CSF: internal communication.

### 3. Internal Communication

As has been seen, QM is essentially a POC initiative. Employee commitment and its role in creating conditions necessary for change through attitudes and behaviours has also been explained. In addition to being one of the soft CSFs of QM implementation, internal communication plays an invaluable role within organizational performance because it establishes, defines and states the beliefs and values of the organization and its leaders (Lewis, 2000; Reger et al., 1994). Communication also contributes to organizational culture and character at the same time as it constitutes evidence of this culture and character (Harshman & Harshman, 1999). As we will see next, internal communication sets the foundation for the worker values and ethics that are necessary for QM implementation. It also manages POC and supports QM CSFs such as employee commitment.

#### *a. Internal Communication*

*Communication* as a concept can be difficult to define since it represents a variety of processes. However, one definition of communication describes it as “a process through which people, acting together, create, sustain, and manage meanings through the use of verbal and nonverbal signs and symbols within a particular context” (Conrad, 1994). Some characteristics of communication according to Goldhaber (1990) include purpose of flow (its objective), the source of the message, the direction (horizontal exchanges between colleagues or vertical exchanges between superiors and subordinates), the communication flow (two-way with the opportunity for feedback or one way with no response) and the method of diffusion (oral or written) (Goldhaber, 1990).

Another important distinction in defining communication is the intended audience of the message. Although *external communication* usually represents exchanges between an organization's members and their clients, their suppliers or the general public and it can help increase performance in the marketplace, external communication is thought to be most valuable for QM implementation when it supports the collection of feedback and understanding of customer needs (Borsese et al., 2003). *Internal communication*, on the other hand, is more pertinent to understanding of QM because it takes place among employees of an organization and between the workforce and management. Its importance was highlighted by Allen and Brady (1997) who noted that management often neglected internal communication unless it was a period of crisis or change; they also pointed to the need for constant attention to internal communication with QM. As we will see next, internal communication ensures that employees have the tools, knowledge, skills and commitment to implement changes necessary for QM.

#### *b. Role of Internal Communication*

A review of the literature identifies several roles played by internal communication for QM programs: the importance of employees' fulfillment of QM Drivers / Criteria, its place in supporting POC -- an integral part of QM -- and its contribution to employee commitment -- an essential CSF for QM.

*i. Fulfilling QM Principles and Drivers.* One role of internal communication comes from the need to have a good understanding of the goals of the quality effort. This includes common understanding of quality objectives (Ahire et al., 1996; Klassen, 1993; Sandelands, 1994; Saumier, n.d.), organizational vision (Lewis, 2000; Miller & Cangemi,

1993), values and direction (Allen & Brady, 1997). Employees must also understand quality's strategic importance versus cost and production within the organization; communication will help position the relative importance of quality within those competing organizational priorities (Saumier, n.d.).

As seen earlier, QM Drivers and Criteria are designed to help organizations focus on all aspects of quality. For example, effective planning and process management, two criteria shown in *Table 1*, depend on the effective use of team and cross-departmental communication. In turn, communication facilitates participation and team-based management (Tata, Prasad & Thorn, 1999). It is believed that communication and participation can predict organizational performance (Rodwell et al., 1998). Communication also helps employees fulfill the "Customer Focus" criteria through better understanding of customer requirements and expectations (Higginson & Waxler, 1994; Klassen, 1993; Miller & Cangemi, 1993). At the same time, the maintenance of effective supplier or partner relations (Miller & Cangemi, 1993) supports another often-found QM criterion: communication's ability to increase ease of information sharing, instilling a sense of ownership and shared responsibility (Ghobadian & Gallear, 2001) combined with the communication of goal achievements (Lewis, 2000) supports QM Drivers concerned with efficiency gains, productivity and quality of products ("results" and "performance"). This aids in the achievement of performance objectives and the attainment of solid business results. Finally, communication supports drivers and criteria concerned with "information & analysis" and "knowledge management" through information sharing.

*ii. Implementing POC.* In addition to understanding the strategy and the role of quality, internal communication improves mutual trust (Ghobadian & Gallear, 2001; Klassen, 1993) through honest, sincere and open communication (Allen & Brady, 1997 p. 232). For Saumier (n.d.), communication is essential to ensure feedback and reduce negative attitudes, thus improving communication competencies. Finally, communication enables the engagement, motivation and empowerment of employees (Klein, 1992; Miller & Cangemi, 1993; Saumier, n.d.).

If communication promotes trust, positive attitudes and engagement, it may be because these also support POC, a construct closely related to QM. In the 1960s, Bennis (1965) cited communication and understanding of the mission and values among various factors for successful change. Just as communication directly contributes to the understanding of QM goals, it is also the conduit for the creation of a common vision for change. QM and POC are understood by employees through the interpretation of an existing set of beliefs about the organization's (perceived or actual) identity (Reger et al., 1994); therefore, management must use communication to manage individual interpretations, and to reframe the organization's vision of the POC (Lewis, 2000) thus aligning actions towards the common goal.

In addition to verbalizing a vision, communication facilitates feedback between implementers and employees to evaluate their perception of the change (Lewis, 1999). Going beyond the simple articulation of a vision for POC and paying attention to the "lower participants of the organization who manage the culture and do the work of the organization" (Fairhurst, 1993 p. 366) helps create a collaborative work environment and facilitates adaptation to change -- two other factors identified by Bennis (1965).

Although a common vision and a collaborative environment can help facilitate change, the organization's past, culture and procedures – what Miller & Cangemi (1993) refer to as the 'cognitecture' of the organization - may be a significant barrier to implementing QM. Furthermore, change can have negative effects on organizational commitment and climate (Armenakis & Bedeian, 1999) and can create distress and anxiety (Mossholder et al., 2000) especially if employees do not accept the change imposed upon them. Communication can nevertheless facilitate POC. For example, a recent study found that when employees perceived human relation values (including communication and involvement) as being high, they were more likely to feel ready to change (Jones, Jimmieson & Griffiths, 2005). This supports the notion that communication can increase individuals' willingness to change by creating buy-in and commitment (Nelson & Coxhead, 1997) through employee involvement in the change effort (Klein, 1992) and regular exchanges about the benefits of the change (Mossholder et al., 2000).

*iii. Supporting employee commitment.* Change incurred by QM can be disruptive, however communication can help increase its acceptance and reduce stress (Begley & Czajka, 1993). Internal communication can also secure Attitudinal Commitment to the change incurred with the introduction of a QM program. Empirical studies have found that communication and commitment are positively related, supporting the assumption that communication is an antecedent of commitment (Postmes et al., 2001). For example, it was found that organizational processes such as communication were stronger predictors of commitment than personal or organizational characteristics (Allen, 1992) and that communication satisfaction was linked to employee organizational commitment

within a school setting (Varona, 1996). Finally, commitment was found to be one of the factors that increases within an environment where clear communication about organizational intention exists (Decotiis & Summers, 1987), with a positive correlation observed between commitment and communication (Rodwell et al., 1998).

Others have found that addressing personal interactions will enhance commitment (Buchanan, 1974; Smith, 1997), social involvement, supporting environments and a sense of belonging (Sheldon, 1971). In addition, de Ridder (2004) notes that employees who have more opportunities to communicate with colleagues will be more committed to the organization. These communication factors may contribute to positive employee attitudes (Harshman & Harshman, 1999; Rodwell et al., 1998) -- defined earlier as affect, behavioural intentions and cognition -- an important component of Attitudinal Commitment.

Commitment is also built upon positive work behaviours and organizational outcomes. Communication promotes this commitment through behaviours including job involvement (Buchanan, 1974; Smith, 1997) and active participation in decision-making (Sheldon, 1971). Buller (1986) also notes that participative decision-making can help improve individuals' commitment to changes and decisions. It is also believed that the more employees have information about their work environment, the more they will be committed to their organization (de Ridder & van den Hooff, B., 2004). For example, timely, useful, clear and accurate information contributes to the efficient completion of tasks (Allen & Brady, 1997 p. 336) thus making goals easier to attain.

Although this thesis has emphasized the importance of both personal and organization-related interaction for commitment, one study suggests that information

used to perform a task may be more effective in predicting commitment than information with a socio-emotional content (Postmes et al., 2001). The importance of task information could be attributed to cognitive factors including an increase in information providing knowledge to solve problems and increased understanding by the individuals who must implement changes (Buller, 1986). This is consistent with another theme found in the literature pertaining to the role of management in developing commitment through communication. Within QM, managers who “walk the talk” (Baines, 1992) are those who use effective leadership to increase commitment to quality (Jackson, 2004) through a congruence between appropriate behaviour (“walk”) and communication (“talk”). Borrowing from communication phraseology, effective commitment has been illustrated as “bottom-up” and “top-down” commitment (Schulze, Hayes, Kahn, Hughes & White, 1993), suggesting that this CSF not only originates from personal employee motivations but also from the participation of managers in the process.

In fact, several studies have demonstrated the importance of leader communication in creating supportive and inclusive environments which impact attitudes and commitment (Allen & Brady, 1997; Brunetto & Farr-Wharton, 2004; Higginson & Waxler, 1994; Koger, 1991; Mathieu & Zajac, 1990; Mayfield & Mayfield, 2002). In one study, relations with supervisors were found to contribute to organizational identification (Lee, 1971), supporting the notion that effective communication by leaders can generate commitment. Postmes, Tanis & de Wit (2001) also found that a sense of belonging is more strongly related to employee attitudes towards communication from managers than to socio-emotional relations with peers. This meta-analysis indicated that information

received from superiors through a formal channel was the most effective type of communication to predict commitment.

This review leads to the conclusion that, although formal vertical communication may be a stronger contributor to employee commitment than informal horizontal information exchanges, the role of communication during QM implementation is to support both personal and organizational employee needs through change management and thus promote positive attitudes and behaviours. The next section of this thesis establishes a theoretical framework to explain how internal communication facilitates the QM change process through the attitude and behaviour dimensions of Affective Commitment.

#### **4. Theoretical Framework**

A review of the literature forms the basis for the elaboration of a theoretical framework. It has been demonstrated that QM implementation is a POC effort, intentionally introduced to improve organizational performance. As illustrated in *Figure 1*, QM and POC are linked through their concern for human and organizational processes. Two CSFs for QM included in this framework are employee commitment to quality and internal communication. Commitment and communication are also enablers of POC while POC can be studied from an affective and behavioral perspective. Affect is a construct similar to the 'ABCs' of attitudes (affect, behavioral intention and cognition). In turn, attitudes and actual behaviours are the two dimensions found in the definition of employee commitment used in this thesis: employees' acceptance of the organization's goals and values (attitudes) as well as employees' actions taken to attain those goals

(behaviours) (Mowday et al., 1979). Although communication supports QM and POC, *Figure 1* shows that it is also an antecedent of commitment. This leads to the theorization that management can support employee changes necessary for commitment to quality by using communication to target both components of commitment (attitudes and behaviours) thus fulfilling personal and organizational objectives.

## **5. Research Objectives**

Based on a review of the literature, the previous section described a theoretical framework in which internal communication is an essential factor for QM. This thesis attempted to understand the relationship between internal communication and QM implementation because of the lack of empirical research on this topic. Assuming that the difficulty in understanding the role of communication during QM implementation was partly due to the perception that communication is embedded within other QM CSFs or that it has an indirect effect on QM, QM was conceptualized as a POC effort and included another CSF (employee commitment) within the framework.

The discussion concluded that one method available to management for ensuring successful QM implementation was to use internal communication to change attitudes and behaviours thus achieving employee commitment to quality. Building upon the framework described above, the objectives of this study are to:

1. Observe and explore communication patterns within a QM program.
2. Understand the role of internal communication within a framework where its purpose is to create commitment to quality.

3. Describe the characteristics of successful internal communication initiatives that nurture employee commitment to quality.

The above mentioned objectives are built upon the framework developed earlier. This framework is used as a guide to conceptualize the role of communication within QM. However, the purpose of this thesis is not to validate this model.

Using the framework developed earlier to meet the objectives of this study, the following research questions are posed:

1. What are the communication factors that contribute to a change in **attitudes** when employees are committed to Quality Management Implementation?
2. What are the communication factors that contribute to a change in **behaviour** when employees are committed to Quality Management Implementation?

The next section describes the methodology used to select an organization that has undertaken a QM effort, to identify internal communication initiatives, to create and conduct an employee survey and to analyze the findings. These research methods build upon each other and are combined to produce the information necessary to conduct a factor analysis which will answer the above research questions.



## 1. Sources of Evidence, Research Methods and Data Collection Sources

The purpose of this thesis is to understand the characteristics of communication initiatives to promote commitment to quality. Because employee commitment is dependent upon its organizational context (Reichers, 1985) and this model presents itself with many variables, this thesis employs a case study design (Yin, 2003). This single-case study uses an organization which has applied for a National Quality Institute (NQI) certification thus establishing that the organization has implemented QM.

The use of multiple sources of evidence is crucial to case studies (Yin, 2003 p. 92). This research makes use of documentation, an interview and a survey. The combination of quantitative and qualitative methods provides advantages. For example, an exploratory study can lead to the development of a survey. It can also explain and help interpret qualitative and quantitative data (Casebeer & Verhoef, 1997). This research design encompasses both qualitative data (thematic content analysis of the PEP application) and quantitative data (employee survey). The semi-directed interview collects both types of information to describe communication initiatives and their objectives.

According to Yin (2003), a combination of individual and organizational units of analysis helps create a holistic picture of the organization. Therefore, as illustrated in *Table 2*, and following Yin, information “from an individual, about an individual” is achieved through an employee survey providing insight into individual commitment to quality and personal experience with communication initiatives. It is also done through an interview with the person responsible for implementing QM where personal communication and quality objectives are discussed. The next unit of analysis suggested

by Yin is data “from an individual about an organization”. The interview just mentioned adds depth to this research by helping us understand the context and rationale behind each communication initiative and the interviewee’s perspective on its organizational impact. Next is data “from an organization about an individual” where the interviewed individual represents the organization’s understanding of its individual members through the discussion of the effect of internal communication efforts. The final unit of analysis described by Yin comes “from an organization about an organization”; therefore, the ‘official’ or formal organizational documentation such as its website, PEP application and organizational profile provide further insight into the organization as a whole and its overall vision for QM.

**Table 2 – Units of Analysis per Research Design & Data Collection Source**

		<b>Data Collection Source</b>	
		<b>From an Individual</b>	<b>From an Organization</b>
<b>Design</b>	<b>About an Individual</b>	Employee Survey  Interview (individual perspective)	Interview (interpretation of individual perspective)
	<b>About an Organization</b>	Interview (organizational perspective)	Content Analysis (NQI PEP Application)  Organization web site  Organizational Profile

Adapted from Yin, 2003 p. 72

The use of an employee survey, an interview and the analysis of the organization's NQI PEP application ensure that all units of analysis suggested by Yin (2003) – data from and about an individual, and from and about an organization – constitute a holistic approach to this case study. This also ensures the richness of the data for the subsequent analysis.

An application detailing the project's procedures, research instruments, confidentiality measures and the use of secondary data of the organization's NQI application were submitted to the University of Ottawa's ethics committee for approval (Appendix 1).

## **2. Research Instruments**

In this section, each of the instruments and outcomes illustrated in *Figure 2* are presented. As indicated earlier, each of these instruments and outcomes are linked to the framework developed in the previous chapter to ensure that each component of the model is represented in this research.

### *a. Selection of the Case*

*i. Inclusion Criteria.* As seen in *Figure 2*, the role of the Selection of the Case (A) was to ensure that this research was conducted within a QM environment. Therefore, the NQI was a condition to identify and select an organization that has successfully implemented QM. The NQI is the most recognized Canadian authority on QM. It is an independent, non-profit organization which developed QM Frameworks to help various types of organizations improve competitiveness and business results (National Quality

Institute, 2000c). Among these Frameworks, presented in *Table 3*, is the Canadian Excellence in Education Program (CEEP) for schools.

The NQI also developed a Progressive Excellence Program (PEP) to support the above Frameworks. The PEP provides progressive goals to help organizations deploy their QM implementation. The PEP is a useful measure of QM implementation since this formal program ensures that all drivers of quality, presented earlier in this thesis, are considered by the organization. To receive PEP certification, organizations must submit reports indicating how they meet all NQI criteria. The reports are assessed by an NQI-approved team of professionals to determine the progress of the organization and, if appropriate, identify areas for further improvement.

As seen in *Table 3*, the NQI's Frameworks generally consists of four levels. The first level deals with establishing the organization's commitment to QM implementation. Next is the planning or foundation phase, followed by a transition or implementation level. The fourth level requires the demonstration of sustained performance. It can take from three to five years to complete all PEP levels and once they have been completed, the organization must re-submit new applications on a periodic basis to sustain their PEP Level IV certification.

Table 3 - National Quality Institute (NQI) Progressive Excellence Program (PEP) Certification Levels

QM Framework	PEP Level 1	PEP Level II	PEP Level III	PEP Level IV
Canadian Framework for Business Excellence	Commitment	Planning	Implementation	Sustained results
Canadian Quality Criteria for Public Sector Excellence	Start up	Foundation	Transition	Sustained Performance
Integrated Certification – Health Care	Start up	Foundation	Transition	Sustained Performance
Healthy Workplace Criteria	Commitment	Planning	Implementation	Sustainability
Ontario Tourism Excellence Program	Commitment	Implementation	Results	---
Canadian Excellence in Education Program (CEEP).	“Green Leaf Level” Commitment & Foundation	“Blue Leaf Level” Planning and Stability	“Red Leaf Level” Improvement & Assessment	“Gold Leaf Level” Outcomes and Sustainability

Source: National Quality Institute, n. d.(b)

The receipt of an upper PEP level certification was a selection criterion for this research study to ensure that the organization had progressed to the Implementation / Improvement / Results phase of QM implementation. Selecting an organization at this level of QM implementation is consistent with observations in the implementation of TQM and ISO 9000 series certification where it was observed that it may take up to two years for quality improvements to appear (Wiele & Brown, 1998). Because this thesis focused on commitment to quality, it was important that initiatives be sufficiently established and deep-rooted within the organization to be observable among employees.

Findings by Ghobadian & Gallear (2001) also support the notion that it is preferable to study an organization certified in a specific PEP Level; they conclude that communication initiatives are usually implemented by the third phase of QM. However, communication initiatives are less likely to be observed during the final phase since this level focuses on the maintenance of results rather than on implementation. Although Ghobadian & Gallear were not using the NQI’s Framework in their study, *Table 4* shows

that their QM implementation “phases” were very similar to the NQI’s four PEP levels described earlier. Thus, organizations having implemented PEP Level III are more likely to be useful in this research.

**Table 4 - Quality Implementation Phases and Communication & Measurement Activities (Ghobadian & Galear)**

	<b>Phase One</b>	<b>Phase Two</b>	<b>Phase Three</b>	<b>Phase Four</b>
Quality Implementation Process Phases	Start-up (launch)	Transition	Consolidation	Maturity / Re-focusing
Characteristics of Communication and Measurement activities	Research, solicitation and awareness activities	Development of communication channels – Empowering employees	Communication mechanism implementation such as meetings & reviews – Empowering employees	
Quantitative contribution of “Communication and Measurement” activities	20 – 30 initiatives	30 – 40 initiatives	20 – 25 initiatives	0 – 10 initiatives

Source: Ghobadian & Gallear, 2001

Gaeller (2004) has found that more can be learned from organizations who have successfully implemented QM than organizations that had not. Ghobadian & Gallear (2001) are also among researchers who have included the receipt of a quality award or certification as inclusion criteria for QM research. In addition to having a PEP certification, the organization’s recognition through the Canada Awards for Excellence (CAE) indicates that it successfully implemented QM. The CAE Gold Category awards recognize organizations that fully meet all NQI criteria; this award is roughly the equivalent of a PEP level IV. Through the CAE Silver and Bronze Awards, the NQI recognizes organizations that have met the intent of the criteria – roughly equivalent to PEP level III – but that have not yet had time to demonstrate sustained results. It is also interesting to note that organizations are judged against the criteria itself and not against

other organizations (National Quality Institute, n. d. (a)), ensuring that all organizations have an equal chance of qualifying for an award.

To ensure that the employees of the selected organization were very familiar with all QM implementation activities so that they could be assessed, it was important that the PEP application be as recent as possible. To ensure the accessibility of the organization by the researcher, an additional criterion was geography. Using all of these criteria, an organization was chosen. Next, I describe the organization selected for this case study.

*ii. Site & Description.* Following the criteria described above, Vincent Massey Public School (VM P.S.) was selected for this study. In 2002, VM P.S. earned the Green Leaf Level Certification (PEP level I) in the Canadian Excellence in Education Program (CEEP). It received the Blue Leaf Level (PEP II) the following year before reaching the Red Leaf Level (PEP level III). In 2005, this school was one of only five in Canada to receive a CAE in the education category and following the collection of the data, the school became only one of two schools to have obtained the NQI's Gold Trophy for Excellence in Education in 2007 (National Quality Institute, 2007).

The Principal of this school is very active in supporting new Principals at other schools with planning and communication. She also leads workshops and speaks about educational excellence at national and international conferences (National Capital Quality Conference, 2006). In addition to its involvement in QM implementation, this school presents a unique opportunity to observe communication in a setting where there is no communication department but where, as discussed earlier, communication is nevertheless crucial.

Approximately 75% of employees are teachers while the remaining 25% are Educational Assistants, Custodial Staff and Office Administration employees. With a total staff of 52 individuals at the time of the study, this elementary school had an enrolment of approximately 600 students representing over fifty countries and languages. The Ottawa-Carleton District School Board has also designated this location as a Beacon school where community and Public Health services are available to its higher proportion of new Canadians and students from low income families.

*b. Identification of Communication Initiatives (Content Analysis of NQI Application)*

Given that this is a case study designed to understand communication initiatives within QM implementation, VM P.S.'s NQI application was analyzed to identify and describe communication activities. This is illustrated in *Figure 2 (B)* where this procedure is linked to the Internal Communication component of the framework introduced in *Figure 1*.

*i. Rationale.* "Identification" is one of many possible uses for content analysis. This unobtrusive technique also commonly aims to understand unobserved facts, intentions and the origins of conditions (Krippendorff, 2004 p. 25). Using the NQI application provides us with the additional advantage of obtaining a list of communication initiatives which have not been influenced by participants' knowledge of the objectives of this study. This list can then be used to identify communication initiatives to be included in the employee survey.

*ii. Documentary Evidence / Sampling Unit Context.* To apply for a PEP level and/or a CAE, organizations must complete a formal application for certification. The

application consists of a twenty-page report indicating how the organization meets the NQI criteria. Reports are typically broken down into sections, each supporting one of the Drivers of excellence shown in *Table 1*. For each driver, the document lists all initiatives and practices, such as communication activities, which support the criteria. Also part of the application are specific examples, survey results and any supporting documentation.

In most frameworks, Levels II to IV require on-site assessments by a team of professionals approved by the NQI. Those inspections determine the progress of the organization within their QM implementation program and, if appropriate, identify areas for further improvement (National Quality Institute, 2006).

The NQI application is an excellent starting point to identify communication initiatives implemented for QM. Because of its comprehensive and rigorous nature, it documents all initiatives the organization judges important in contributing to its QM approach. The use of the application also meets the requirement for a context-sensitive analysis (Krippendorff, 2004 p. 42) given that this data was collected in the context of obtaining a certification for QM.

*iii. Procedures.* Communication as a concept can represent an array of actions and processes; therefore, the first challenge was to identify the presence of communication initiatives reported in the NQI application. To allow for easy referencing of initiatives, each section and paragraph of the NQI application was numbered and these numbers (“VM id”) were used in a coding sheet available in Appendix 3. The coding sheets guided the identification of initiatives and ensured consistency in determining which activities qualified as communication.

This exercise was governed by a set of criteria and attributes generally associated with communication (Appendix 2). First, a list of key words helped identify activities of a transactional nature or initiatives that could dictate or enable a future communication process. These items were copied or paraphrased into the coding sheets. Then, attributes generally associated with communication helped confirm that the activity was communicational; these include purpose of flow, sender/receiver, direction and spoken/written communication. Finally, all initiatives had to be internal. These terms will be defined below.

(a) *Key words.* Communication has been described as a transactional activity where influence and interaction between two parties is an essential ingredient (Adler, Rosenfeld, Proctor & Winder, 2006; Dolphin, 2005). Therefore, words suggesting the presence of a transaction and interaction helped identify potential communication initiatives. These included: “meet”, “share”, “discuss”, “present”, “provide feedback”, “ask”, “teach”, “interact”, “encourage” and “suggest”. Several initiatives were not included in this study because, although communication may have been required to accomplish a task at hand, the initiative itself did not directly imply a transactional exchange of information. Examples of terms excluded are: “collect data”, “input into a report”, “track” or “observe”, “analyze trends”, “evaluate”, “plan”, “review”, “take responsibility” and “coordinate”. These activities are not transactional because they do not require the presence of other individuals. In most cases, the output of the information is a report, a decision or an action. Other terms were included or excluded depending on their context. For example, “refer”, “welcome”, “take responsibility for”, and “take part in an activity” can involve a transaction when two individuals or groups are involved.

However, these communicative actions may not necessarily have been received by another party. Another type of initiative was also included in this study. Although it was stated earlier that communication initiatives had to be transactional, there is one exception: initiatives where a policy or a measure was put in place to facilitate future communication processes. Although drafting a communication policy is not a communication initiative (until it is published and read by its intended audience), valuable insight is gained in assessing how an organization positions and facilitates future communication efforts to support QM implementation.

*(b) Purpose of Flow* represents the objective of the communication.

Communication objectives can include support tasks (informing or persuading), maintenance (survival of the organization or regulatory information), human elements (influencing attitudes, morale or integrate) and innovation (facilitating change) (Goldhaber, 1990). Although the purpose of flow was not always explicitly stated in the organization's application, it could be assumed that the initiative supported the specific PEP criteria it was linked to.

*(c) Sender / Receiver.* The *sender and receiver* are the groups or individuals involved in the creation, transmission and receipt of the message. When the originator and intended recipient were not explicitly identified in the application, some assumptions were made based on the report's description and context of the initiative.

*(d) Communication Direction.* The *communication direction* also contributed to the validation of the presence of communication. Horizontal communication occurs between colleagues or individuals at the same (or at a similar) level in the organizational

chart. In downward communication, the sender is a member of an upper echelon who transmits a message to a subordinate. The opposite applies to upward communication.

(e) *Feedback*. Communication can be unidirectional where the receiver does not respond to the sender; an example is a presentation (with no opportunity for discussion). With bidirectional communication, the receiver responds to the sender as would occur, for example, during a conversation where feedback from the receiver is possible.

(f) *Spoken / Written Communication*. Making a distinction between spoken and written communication was also a good identifier of communication. Nelson and Coxhead (1997) have noted that the written word and the spoken word -- with a physical presence (such as meetings) or without a physical presence (such as telephone conversations) -- are types of communication channels along with non-verbal behaviour (such as management by walking around, presence at social functions and listening). Although non-verbal behaviour may be underrepresented in this research design because it was not usually reported in the organization's application, some communication initiatives presented characteristics which did fit this categorization. The open-door policy is an example of an initiative reported in the NQI application where a practice (open-door) communicates a message of openness without using words.

(g) *Internal Communication*. Identification of the sender and receiver helped us validate another important criterion for this study. D'Almeida (2000 p. 9) defines *internal* communication according to the target of the message. Therefore, in this study, the receiver had to be a school employee. This means that communication to or from students was excluded; for the purpose of this research, students represent the organization's "customers" who receive education (the school's "product"). Although they are crucial

contributors to the school's ability to meet the needs of students, parents, the community and the school board are also excluded as receivers.

*(h) Missing information.* Several initiatives were included in this study for which it was impossible to identify a sender / receiver or establish the direction, feedback or method of diffusion. In some cases, the information was simply not stated in the application but implicit clues and key words provided enough confidence to include the particular initiative in the study. In other cases, the initiative consisted of the establishment of policies, practices or methods to facilitate future internal communication. These types of initiatives are crucial for the understanding of the organization's communication practices for quality and were therefore included.

*iv. Selection of Communication Initiatives.* One hundred and twenty-four communication initiative items were identified in the first round (see Appendix 3). However, as seen in Appendix 4, once similar items were regrouped to count them only once, this further reduced the number of initiatives to 51.

Another selection followed since the large quantity of communication initiatives identified made it impractical for an interview and survey. Because this study is concerned with the link between communication initiatives and employee commitment to quality rather than understanding which initiatives were implemented, the reduction of initiatives studied was deemed appropriate. Items selected for inclusion in this case study are highlighted in Appendix 4.

Nineteen items were selected based on the author's perceived importance of initiatives; this judgement was contingent on representing the number of times the initiative appeared in the application and the initiative's relevance to QM. At the time of

the interview, this selection was validated with the school's principal who requested that two items be re-included in the list because they were felt to be important. This resulted in 21 initiatives being included for the survey.

*c. Description of Communication Initiative's Intent to Change Attitudes and Behaviours (Interview)*

Following the content analysis of the organization's NQI application to identify and select communication initiatives to be included in this study, the school principal was interviewed. As seen in *Figure 2*, the interview (C) was necessary to build a questionnaire customized to the school to assess communication initiatives' effect on attitudes and behaviours. This section presents the rationale for using a semi-structured interview, the interview protocol and the interview procedures.

*i. Rationale.* Interviews are useful in providing insight into causal inferences and targeting the topic being studied (Yin, 2003). The purpose of interviewing the individual primarily responsible for QM in the organization is to understand the context and intent behind each communication initiative identified in the content analysis. Another objective of the interview is to identify desired behaviours and attitudes for each initiative, information which is to be used in the employee survey. The use of interviews to support the creation of questionnaires is also a technique used in the past (Cornett-DeVito & Friedman, 1995).

The perspective of the person accountable for QM, the Principal, is appropriate since, as stated earlier, management plays an important role in promoting and enabling employee commitment to quality. The Principal is also in a good position to provide

insight into the main purpose of each communication initiative and thus describe the desired attitude and behaviour change for each. Although the interview provided a subjective opinion of each communication initiative, it would have been impossible to gain the level of insight possible with the interview through the content analysis alone. Furthermore, the contribution of this individual was used mainly to create a questionnaire which also dissipated the subjectivity effect in the final results.

A semi-structured interview format was selected to ensure that all communication initiatives were covered during the session and that all relevant information was collected. However, the format also allowed for the discussion of additional information to gain a better understanding of the organizational context.

*ii. Interview Protocol.* To reduce the possibility of bias in the interview, specific closed-ended questions were constructed and the same questions were asked for each communication initiative used in this study. *Table 5* shows the protocol sheet and, as an example, includes the Principal’s response to one of the communication initiatives. The initiative used in this example, “presentation on the importance of maintaining balance”, was identified in the school’s NQI Application as part of the content analysis which took place prior to the interview.

**Table 5 - Interview Protocol**

Survey id # & item id # : 2(3)	Id(s) within NQI application: <i>I25</i>
Description of initiative (from the NQI application):	<i>Presentation on importance of maintaining balance, understanding personal learning style, celebrate successes.</i>
What <b>attitude</b> would best describe the desired outcome of this initiative?	<i>Believing that what they do is good enough</i>
What <b>behaviour</b> would best describe the desired outcome of this initiative?	<i>Taking control to reduce stress and in setting priorities. Reduce stress outside school hours.</i>

An open-ended question asked the Principal to link the communication initiative with a desired change in attitude and to a desired change in behaviour. Where possible, this ideal outcome was to be within the context of QM. The last question assessed the Principal's perceived success of the communication initiative in meeting the objectives listed above. The success was rated on a five-point Likert-type scale.

*iii. Procedures.* Before conducting the interview, this project was reviewed and approved by the University of Ottawa Ethics Committee (see Appendix 1). The interviewed individual also had the opportunity to review the project and consent to access the premises for the interview was also obtained. The interview was conducted with Carol Hunter, Principal of Vincent Massey Public School. Mrs Hunter was selected for the interview since she is the individual most accountable for setting the direction and managing the implementation of the NQI CEEP in the school.

The interview took place at Vincent Massey Public School in Ottawa on Wednesday, March 29 2006 and lasted two hours including scheduled breaks. After reviewing the purpose of the interview and clarifying procedures, the participant received a copy of the interview protocol and the list of communication initiatives. Questions for each initiative were answered one by one, as the researcher marked answers and took notes. The answers provided were repeated by the researcher to reduce errors and clarification was sought as necessary.

After answering all questions for the initiatives originally selected by the researcher for inclusion in this study, the participant had the opportunity to review other communication initiatives identified in the school's NQI application. As a result, two

initiatives were re-introduced and assessed during the interview because they were judged important or interesting to the participant.

The interview provided a better understanding of each communication initiative and provided information to build an employee survey measuring the success of these initiatives in changing attitudes and behaviours. The survey also assessed individuals' commitment to quality levels. The subsequent section introduces the survey components and reviews the process used for its construction.

*d. Measurement of Communication Initiatives' Success on Changing Attitudes and Behaviours (Questionnaire)*

As shown in *Figure 2*, after exploring the school's communication initiatives through the interview with the Principal, an employee survey assessing the effectiveness of those initiatives on commitment to quality measured the attitude – behaviour component of the framework developed earlier.

The employee questionnaire had several components, each discussed in detail below. A copy of the respondent information sheet and survey is also available in Appendix 6 and 7. This part of the thesis presents the survey instruments, data-collection procedures and limitations of the questionnaire.

*i. Formulation of Statements.* A series of two statements were developed for each communication initiative: change in attitude and change in behaviour as a result of the communication initiative. The first statement assessed the respondents' perception of the effect of the initiative on a specific personal attitude while the second statement was concerned with the respondents' change in behaviour as a result of the initiative. All

statements were evaluated by respondents on a five-point Likert-type scale where 1 represented “Not at All” and 5 was “All the Time”.

*ii. Validity & Reliability.* One challenge was to ensure scale reliability and validity through the appropriate formulation of the questions. Precision is especially important in the measurement of attitudes and behaviours when attempting to link these two constructs (Fisher, 1980). Precision also helps reduce individual interpretation of the instrument.

To improve precision, the consistent use of definitions was taken into account. As described earlier, commitment through attitudes is “a strong belief in and acceptance of the organization’s goals and values” (Mowday et al., 1979) where attitudes include feelings (affect), behavioural intention and thought (cognition). Therefore, questions were framed to ask about feelings, intention or beliefs and are consistent with Meyers’ view that attitudes can be assessed by asking about feelings (1983 p. 35). Commitment through behaviours was defined as the “willingness to exert considerable effort on behalf of the organization” (Mowday et al., 1979) and included behavioural, normative and control beliefs. This was translated into actual actions by asking employees whether they had implemented or changed a practice or if they had participated in an activity as a direct result of the communication initiative.

As much as possible the first person was used and individuals were asked about their personal experience to avoid responses based on employees’ perception of what others felt or how they behaved. To increase cause and effect validity, statements were also worded in such way to ensure that changes in attitudes and behaviours were understood as being the result of the specific communication initiative stated in the question. Therefore, the communication initiative was repeated in the statements to

ensure association of the initiative with the particular attitude or behaviour in the hopes that this would reduce the possibility that employees evaluated that a change in their attitude or behaviour had been caused by factors other than communication.

Because it was theorized that each communication initiative attempted to change an attitude or behaviour to achieve QM, it was important to ensure that initiatives were judged within the context of QM. If the desired outcome defined by the Principal during the interview did not specifically link to QM, the NQI criteria supported by the particular initiative in the NQI application were incorporated. In some cases, it was difficult to do so because the communication initiative supported more than one criterion or because its link to an attitude or behaviour was difficult to make; in this situation, a quality principle, as defined by the NQI (Appendix 5), was incorporated in the question.

Once drafted, statements for the employee questionnaire were reviewed by the school’s Principal, who provided further suggestions. As a result of this review, some changes were implemented to clarify statements and make them more meaningful to the school’s employees. Flesch-Kincaid Grade Level Readability for the Communication initiatives portion of the questionnaire was 11.6 (see *Table 6*).

**Table 6 – Questionnaire Readability Analysis**

	<b>Commitment to Quality Scale</b>	<b>Communication Initiatives</b>
Sentences per Paragraph	1.0	1.0
Words per Sentence	14.5	16.9
Characters per Word	4.2	5.3
Passive Sentences	8%	6%
Flesch Reading Ease	62.4	41.4
Flesch-Kincaid Grade Level	8.1	11.6

In conclusion, precision of the questions, consistent definitions and readability help improve the quality of the instrument. The customization of an instrument to measure a specific attitude is also deemed to be an acceptable practice (Crites et al., 1994). It helps improve validity and specifies the object being measured. Although it may be discouraged because it does not lend itself to comparison within communication initiatives or with other organizations, customization of the instrument for a specific attitude does not present a problem within this research design where we study only one case (the primary school).

Another section of the survey collected demographic information including job function, tenure, gender and age. This section was added to the survey to allow for comparison with similar studies and help validate the findings. For example, other studies have found commitment to be higher for employees with more tenure (Varona, 1996), for older workers (Lee, 1971), for women and for employees for whom mistakes have expensive consequences (Eisenberg et al., 1983; Jackson, 2004). An understanding of respondents' profile also helped evaluate whether the survey sample was representative of the organization. Demographic questions are found within the survey in Appendix 6.

*iii. Data-Collection Procedures.* Using an online service ([www.surveymonkey.com](http://www.surveymonkey.com)) to build the electronic questionnaires facilitated access by participants and coding and analysis by the researcher. Before launching the survey, it was tested by the Principal to prevent errors during collection of the data. The online questionnaire did not require individuals to answer each question in order to proceed to the next screen. Respondents had the option of selecting N/A if they did not wish to

respond to questions in the Commitment to Quality Scale and the Communication Initiatives sections. Any demographic question could be skipped.

The Principal sent an e-mail invitation to school employees outlining the purpose of the survey with a link to the online questionnaire (see Appendix 7). Having the Principal send the invitation helped legitimize the project and maintained the confidentiality of individual employees' names and e-mail addresses from the researcher; this was also a request from the participating organization. As an additional measure to ensure the anonymity of responses, participants were assured that data specific to demographic groups of less than five individuals would not be published or made available to the participating organization.

Online questionnaires were password protected to ensure only employees from that school could participate in the survey. It was available online from April 4<sup>th</sup> to April 14<sup>th</sup> 2006 during which 36 responses were collected. However, some employees had difficulty accessing the survey due to the password used. Paper copies were made available to employees who wished to participate but had been unable to do so online. It was requested that participants enclose their completed questionnaire in the sealed envelope that was provided and leave them at the office to be returned to the researcher. As a result, 10 more surveys were collected.

Another section of the questionnaire addressed employee's levels of commitment to quality. The data-collection procedures and validity and reliability described above were also applicable to this portion of the questionnaire which is described next.

*e. Individual Commitment to Quality Score (Commitment to Quality Scale)*

The purpose of the last instrument used for this research, the Commitment to Quality Scale (CQS), shown in *Figure 2 (E)*, was to ensure that the employees of this organization displayed characteristics associated with high levels of commitment to quality. The CQS was also part of the questionnaire described in detail above.

Jackson's (2004) Commitment to Quality scale (CQS) is a 12 question instrument to measure employee Affective Commitment to organizational values which, in this case, are quality values. This instrument incorporates the affective, behavioural and cognitive indicators of attitudes described earlier in this thesis which are believed to be important components of Affective Commitment (see Mishra & Spreitzer and Reichers, 1985).

Questions 1 to 3 measured affective facets which Jackson defines as "pride in affiliation to the company's goals, and feelings of satisfaction derived from involvement with the company's goals" (Jackson, 2004 p. 715). Questions 4 to 8 measured behavioural commitment which fit with my working definition of behavioural commitment: participation and willingness to exert effort to achieve the organization's goals. The last four questions dealt with cognitive aspects of affective commitment which coincide with my definition of attitudinal commitment which is "identification with the organization's goals and values, and a shared sense of importance of the company's goals".

As is the case for this study, the CQS used a five-point Likert-type scale ranging from "Not at All" (1) to "All the Time" (5) and was included in a survey with other questions customized to the organization being surveyed. In addition, some of the wording in the Commitment to Quality questions was adapted for the school being used

in this research. References to the “company” were changed to “school” while “products” were converted to “education”. These questions were also reviewed by the school Principal to ensure they would be relevant to employees (see *Figure 3*).

**Figure 3 - Adaptations made to Jackson’s Commitment to Quality Scale**

1. It pleases me to know that my own work has made a contribution to the quality of <u>my school’s education</u> .	Deleted: the company’s products
2. A major source of satisfaction from my job comes from <u>doing quality work</u> .	Deleted: producing a quality piece of
3. It is important to me that my <u>school</u> continues to put an emphasis on quality.	Deleted: company
4. I am continually taking action to improve the quality of my work.	
5. Even if my work was never checked, I would continue to treat quality as being important.	
6. I do not mind spending more time on a task in order to increase its quality, even if I get no credit for it.	
7. I am prepared to put in extra effort to meet quality goals.	
8. In my job, quality is the most important target to achieve.	
9. I feel that quality is the most important aspect of my job.	
10. I take personal responsibility for the quality of my own work.	
11. Each individual has an important part to play in increasing the quality of my <u>school’s education</u> .	Deleted: company’s products
12. I feel I share a responsibility for the quality of my <u>school’s education</u> .	Deleted: company’s products

*f. Response to Research Question (Factor Analysis)*

The instruments described above collected the information necessary to answer the research question. However, as seen in *Figure 2 (F)*, factor analysis was employed to identify the factors related to attitude and behaviour factors. To analyze the survey data, the Statistical Package for the Social Sciences (SPSS) was used to run a factor analysis on the attitude and behaviour questions posed in the survey for each communication initiative.

*i. Rationale.* The purpose of factor analysis is to “take a large number of observable instances to measure an unobservable construct or constructs” (George & Mallery, 2007 p. 246). It finds variables that are correlated thus leading to the discovery of a small number of factors (George & Mallery, 2007; McCroskey & Young, 1979).

Factor analysis is used to facilitate the analysis of the 21 communication initiatives selected for inclusion in this case study because it will interpret the results of the questionnaire by identifying common themes among the survey questions. It will also help answer the research questions: What are the communication factors that contribute to a change in attitudes and a change in behaviour when employees are committed to Quality Management Implementation?

*ii. Procedures.* To conduct factor analysis, George and Mallory (2007) describe four basic steps: (1) calculation of a correlation matrix of variables to be analyzed, (2) factor extraction, (3) factor rotation and (4) interpretation of the results. These procedures are explained next.

*(a) Calculation of a correlation matrix.* Two separate factor analyses were conducted. The first described the effect of communication initiatives in changing employees' attitudes by using the attitude questions for each communication initiative. The other analysis used the behaviour questions of the survey to identify behaviour factors for the same twenty-one communication initiatives. As indicated earlier, SPSS was used to conduct this analysis which was the method used to obtain two separate matrices (attitudes and behaviours), each showing the correlation of all survey questions.

*(b) Factor extraction.* The extraction of the factors is the next step which measures the variation within all variables and first identifies the group of variables which, together, can account for the most important level of variance then identifies the next group of variables which account for the most important level of variance after the extraction of the previous factor (George & Mallery, 2007). This procedure is repeated to identify all other factors.

(c) *Factor rotation.* Once factors are extracted, factor rotation facilitates the interpretation of the factors by achieving “high factor loadings on one factor and low loadings on all others” (George & Mallery, 2007). This helps ensure that factors are easier to identify. Varimax rotation was used for this analysis.

(d) *Interpretation of the results.* The last step of factor analysis is the interpretation of the results where variables which are highly loaded on one factor and not highly loaded on others are used to explain and name the factor. To complete this step, each variable of each factor was compared to identify common elements or themes. This analysis led to the naming of each factor which is discussed in detail in the following section.

To conclude this chapter, the appropriate selection of the organization to use as a case, the content analysis of its NQI PEP application, the interview with the school’s principal and the survey conducted with the employees all provide the foundation for this research. These measures enabled the undertaking of the description of the communication initiatives implemented to meet the requirements of a QM management implementation endeavour in addition to measuring each initiative through their success in changing attitudes and behaviours. The next chapter presents and discusses the results of the interview and the questionnaire.

## RESULTS AND DISCUSSION

As discussed earlier, the objectives of this study are to observe and explore communication patterns within a QM program, to understand the role of internal communication within a framework where its purpose is to create commitment to quality and to describe the characteristics of successful internal communication initiatives that nurture employee commitment to quality. The methodology outlined in the last chapter is designed to answer the research questions by determining which communication factors contribute to a change in attitudes and a change in behaviour when employees are committed to quality.

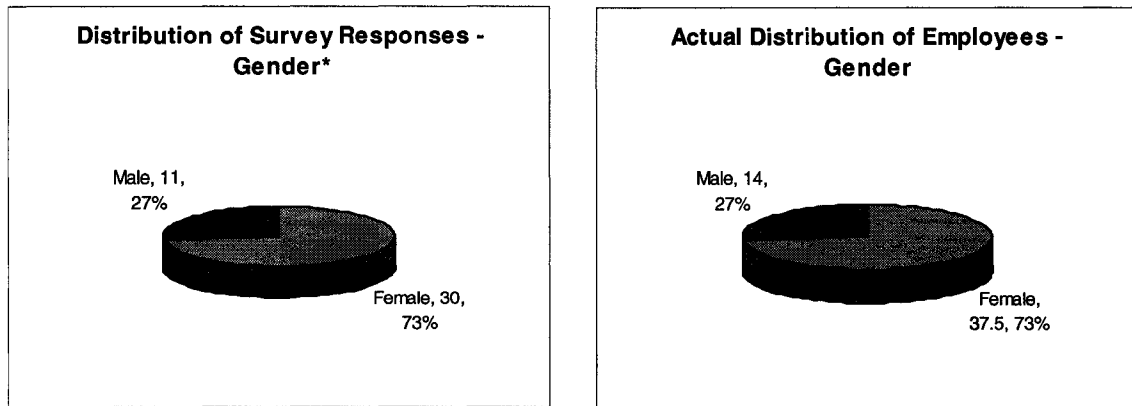
In this section, the findings are presented and discussed. This chapter first reviews the survey's demographic profile along with response rate, and sample of respondents. The next part uses the survey results to establish that this organization does, in fact, display high levels of commitment to quality and explores employees' conceptualization of quality. Findings related to the communication initiatives found in the school's NQI application are reviewed along with an analysis of the communication initiatives based on the survey results. The last section of this chapter uses factor analysis to describe and analyze communication initiatives through the two dimensions of commitment: attitudes and behaviours.

### 1. Survey Demographic Profile

Forty-six individuals responded to the questionnaire representing a response rate of 88.5% (46 respondents of a total population of 52). Survey respondents are representative of the organization's employee sample. Seventy-three percent of

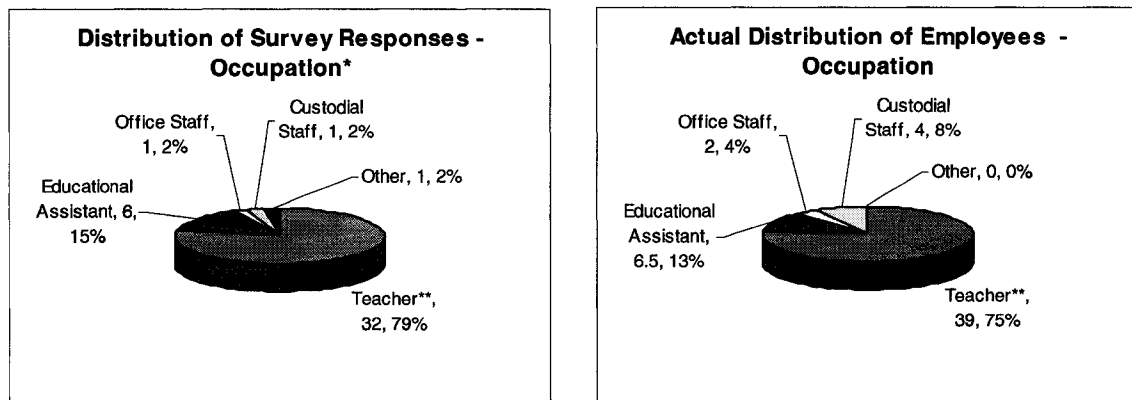
respondents were female which is consistent with the percentage employed in the organization (see *Figure 4*). Seventy-eight percent of respondents were teachers (compared to 75% of employees who represent this group) and 14.5% were educational assistants (compared to 13% of employees actually employed in this category). As seen in *Figure 5*, custodial staff was underrepresented in this survey.

**Figure 4 - Survey Response in Comparison to Total Sample - Gender**



\* Five survey respondents did not answer this question

**Figure 5 - Survey Response in Comparison to Total Sample - Occupation**



\* Five survey respondents did not answer this question

\*\* Teachers include 1.5 Learning Support Teachers, 2 Special Education Learning Centre Teachers, 2.5 ESL Teachers, 0.6 Guidance Counsellor, 0.1 Computer Resource Teacher and 0.5 Library Technician (Ottawa-Carleton District School Board - Vincent Massey Public School, 2005)

Working experience within the school ranged from one year or less to over 20 years, with the largest group (45%) having tenure of 5 to 9 years. A large proportion of respondents (65%) had over 10 years of experience in their profession while most (90%) were between 30 and 59 years old (*Tables 7, 8 and 9*).

**Table 7 – Distribution of Survey Respondents by Organizational Tenure**

<b>Years in this School</b>	<b>Response Total</b>	<b>%</b>
1 or less	4	10%
2 – 4 years	9	22.5%
5 – 9 years	18	45%
10 – 14 years	6	15%
15 – 19 years	2	5%
20 or more	1	2.5%
<b>Total Respondents</b>	<b>40</b>	
<b>(skipped this question)</b>	<b>6</b>	

**Table 8 - Distribution of Survey Respondents by Occupational Tenure**

<b>Years in this Profession</b>	<b>Response Total</b>	<b>%</b>
1 or less	2	5%
2 – 4 years	3	7.5%
5 – 9 years	9	22.5%
10 – 14 years	10	25%
15 – 19 years	8	20%
20 or more	8	20%
<b>Total Respondents</b>	<b>40</b>	
<b>(skipped this question)</b>	<b>6</b>	

**Table 9 - Distribution of Survey Respondents by Age**

	<b>Response Total</b>	<b>%</b>
Under 20 years old	0	0%
20 – 29	3	7.1%
30 – 39	14	33.3%
40 – 49	11	26.2%
50 – 59	13	31%
60 and up	1	2.4%
<b>Total Respondents</b>	<b>42</b>	
<b>(skipped this question)</b>	<b>4</b>	

## 2. Commitment to Quality

Establishing that the organization selected for this study was in fact an organization where employee were highly committed to quality was important in order to validate that the findings about the communication initiatives can be interpreted within the context of a highly committed workforce. The Commitment to Quality Scale's reliability is reviewed next along with observations about this school's levels of commitment.

### *a. Commitment to Quality Scale – Reliability & Description*

*i. Findings.* Jackson's (2004) Commitment to Quality Scale was used in the questionnaire administered to the school's employees to assess their level of commitment to quality. Cronbach's Alpha for this study ( $\alpha = .82$ ) is slightly lower than was reported by Jackson ( $\alpha = .88$ ). The mean for this sample is 4.60 and, as shown in *Table 10*, standard deviation is 0.56. Jackson reported similar results for two samples (mean = 3.96, SD = 0.52; mean = 4.03, SD = 0.48). In addition, the modal value of the Commitment to Quality instrument was 5 (on a scale of 1 to 5 where "5" represented the highest level of commitment) (*Table 11*). This is comparable to Jackson's results where the mode was also high at 4.0.

**Table 10 - Commitment to Quality – Descriptive Statistics**

Question Number *	Question	N	Range	Mean	Std. Deviation	Mode
CQS 1 (A)	It pleases me to know that my own work has made a contribution to the quality of my school's education.	46	1	4.74	.444	5
CQS 2 (A)	A major source of satisfaction from my job comes from doing quality work.	46	1	4.67	.474	5
CQS 3 (A)	It is important to me that my school continues to put an emphasis on quality.	46	2	4.83	.437	5
CQS 4 (B)	I am continually taking action to improve the quality of my work.	46	1	4.61	.493	5
CQS 5 (B)	Even if my work was never checked, I would continue to treat quality as being important.	46	1	4.72	.455	5
CQS 6 (B)	I do not mind spending more time on a task in order to increase its quality, even if I get no credit for it.	46	3	4.37	.645	4
CQS 7 (B)	I am prepared to put in extra effort to meet quality goals.	46	3	4.52	.623	5
CQS 8 (B)	In my job, quality is the most important target to achieve.	45	3	4.33	.674	4
CQS 9 (C)	I feel that quality is the most important aspect of my job.	45	4	3.91	1.041	4
CQS 10 (C)	I take personal responsibility for the quality of my own work.	46	3	4.85	.515	5
CQS 11 (C)	Each individual has an important part to play in increasing the quality of my school's education.	46	2	4.83	.437	5
CQS 12 (C)	I feel I share a responsibility for the quality of my school's education.	46	1	4.78	.417	5
<b>Average</b>				<b>4.60</b>	<b>0.555</b>	

\* A = affective facet; B = behavioural facet; C = cognitive facet

**Table 11 - Commitment to Quality - Distribution of responses of entire scale**

Answer	Total Count
(N/A) 0	2
(Not at all) 1	2
(Some of the time) 2	8
(Neither) 3	7
(Most of the time) 4	175
* (All the time) 5	358
* mode	

*ii. Discussion.* As demonstrated in *Tables 10* and *11*, commitment levels in this organization are very high. One explanation for this result comes from the hypothesis of this thesis that organizations that are successful with QM must also benefit from high commitment levels from their workers. Allen & Brady's (1997) research confirms that organizational commitment is higher in organizations where quality practices are being implemented. Furthermore, one study comparing teachers, hospital and food factory workers (Varona, 1996) found that teachers were much more committed to their organization, and the author theorized that this may be due to communication practices that include motivational programs which are more commonplace in schools.

*b. Employee Conceptualization of Quality Relative to Other Job Tasks*

*i. Findings.* Despite the high levels of commitment observed throughout the Commitment to Quality instrument, *Table 10* shows that Question 9 ("I feel that quality is the most important aspect of my job") had a comparatively low mean score and a high range of answers. A lower score was also noted for a similar question (Question 8: "In my job, quality is the most important target to achieve"). Like question 9, it deals with the perceived relative importance of quality in comparison with other job tasks and targets.

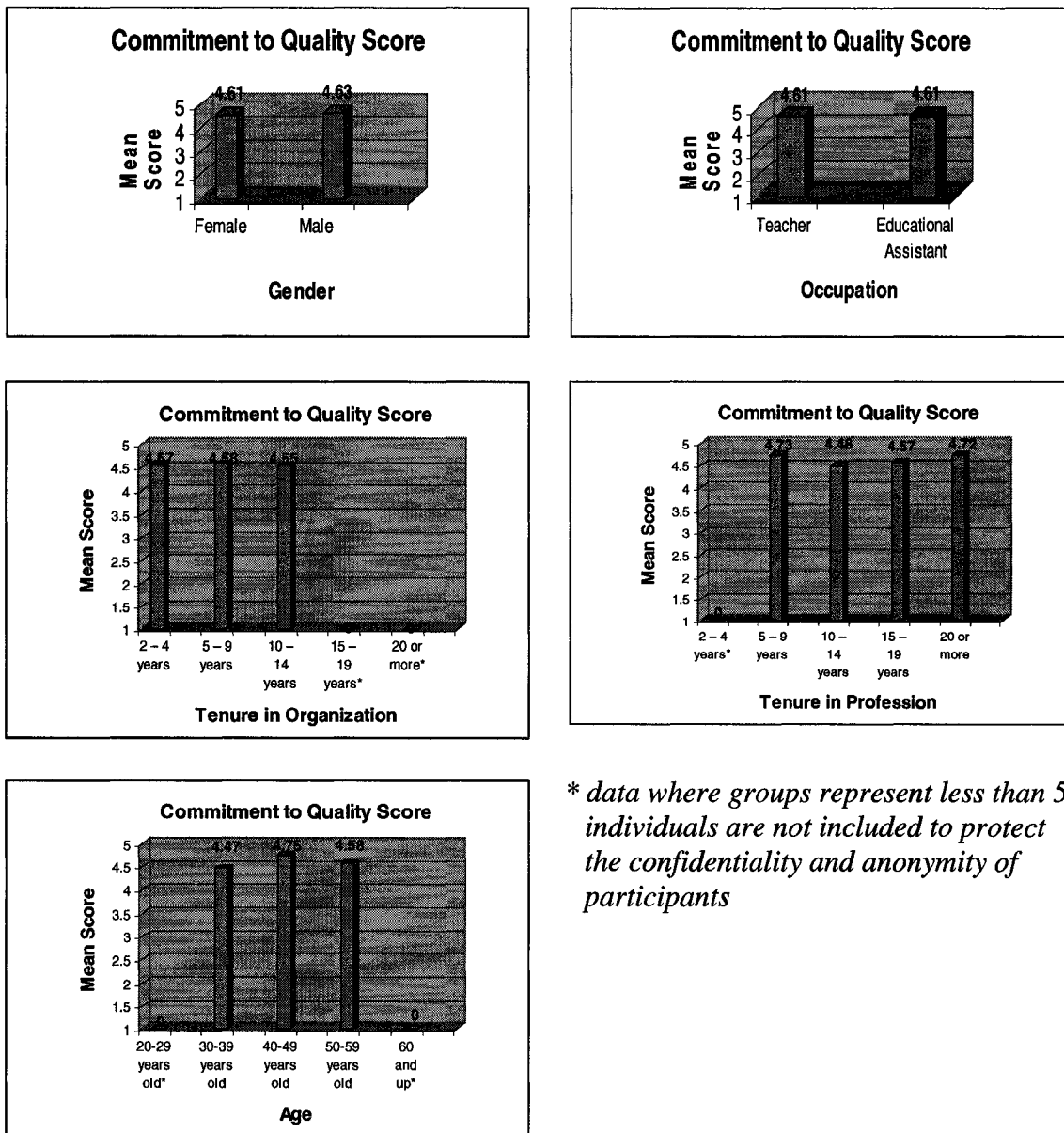
*ii. Discussion.* Ensuring that employees focus not only on production and delivery but also on quality is a prerequisite for successful QM (Grover & Walker, 2003). However, results from the survey conducted with school employees suggest that quality may not always be the most important aspect of their jobs, although they display a strong overall commitment to quality with an overall score which is still above an average of 3 (on a scale from 1 to 5). This result suggests that school employees may view another

aspect of their job as being more important than quality. During the interview, the Principal stated that Professional Development sessions often touched upon the importance for staff to accept that perfection is not appropriate or healthy in all situations. Furthermore, a large proportion of the communication initiatives identified in this school's NQI Application were concerned with Work / Life balance themes; therefore, the school's emphasis on learning to acknowledge personal limitations could provide an explanation for a lower score on this question. Finally, this result may also suggest that employees perceive quality as a program or concept separate from their day-to-day job.

*c. Personal Variables*

*i. Findings.* Contrary to Jackson's (2004) and others' (Lee, 1971; Varona, 1996) conclusions, this survey did not find a significant relationship between personal variables such as gender, tenure and age for commitment to quality (see *Figure 6*) as these variables were similar across each demographic subset.

Figure 6 - Commitment to Quality – Personal Variable Comparisons



*\* data where groups represent less than 5 individuals are not included to protect the confidentiality and anonymity of participants*

ii. *Discussion.* Varying definitions of commitment could help explain why the results of this thesis were different from other researcher’s findings.

For example, research conducted by Lee (1971) found a strong connection between age and commitment. However, much of his focus is placed on characteristics typically found within Calculated Commitment: “sense of belongingness”, “shared goals

with others in the organization”, “loyalty” and “career orientation and professional goals” rather than with characteristics linked to our definition of commitment (commitment to the organization’s goals). In his study within an educational setting, Varona (1996) found that higher tenure resulted in higher commitment although the newest teachers were the most committed. These mixed results are echoed by Mathieu & Zajac (1990) who found little evidence to support gender differences in commitment levels.

These studies, along with the findings described above, challenge the idea that personal characteristics are always linked to commitment and suggest that, although communication efforts to promote commitment can be adapted for different groups, organizations should still target all types of employees, regardless of gender, tenure and age. It is however important to add that this statement must be tempered due to the lack of variability between individual commitment to quality scores which can make it difficult to draw definite conclusions.

### **3. Communication Initiatives**

Observations about the type of communication initiatives implemented within this organization to attain QM objectives are helpful in understanding communication’s role in achieving employee commitment to quality. Next is a brief review of the characteristics of communication initiatives implemented for QM: Horizontal / Informal Communication and Vertical (Upward / Downward) / Formal initiatives.

*a. Communication Characteristics*

*i. Horizontal and Informal Communication.* In the literature review, it was noted that commitment can be increased through social involvement or interaction and identification with other employees in an organization (Sheldon, 1971) which is often referred to as horizontal communication. Horizontal communication is also described as informal communication because it is considered to be unofficial, personal and goes beyond the boundaries of the organizational chart (Johnson, Donohue, Atkin & Johnson, 1994).

Although most communication initiatives observed in this case study have both horizontal and vertical components, examples of initiatives where horizontal communication was prominent include informal communication (Communication Initiative #3, Appendix 4) which encourages hallway conversations, collegial interactions in informal discussions to discuss professional issues and improve leadership effectiveness. Another example of a communication method to promote collegiality is the “What I like about Each Staff Member” activity (#18) where each employee identifies something they appreciate about a colleague thus creating a sense of appreciation and recognition of others. Presentations by employees to others (#2), mentoring (#10), and learning at staff meetings (#9) in addition to discussing students of concern (#5) all depend on horizontal communication where employees help each other improve skills and competencies or to solve problems.

*ii. Vertical (Upward / Downward) and Formal Communication.* It has been established that horizontal communication plays an important role in commitment, however this thesis has also argued that communication from managers (downward /

upward or 'vertical' communication) may be more effective for organizational commitment (Lee, 1971; Postmes et al., 2001; Putti et al., 1989) because it provides information and knowledge to perform tasks, solve organizational problems and be involved in the decision-making process. Formal channels have also been found to be more effective in predicting levels of commitment when the purpose is to provide information to complete a task (Postmes et al., 2001. p. 231). Vertical communication can be characterized as formal and official because the information travels between employees and management (Johnson et al., 1994).

Evidence of vertical communication found in communication initiatives within this school's NQI application include In School Workshops (#11), activities surrounding Planning (#6), Communication of Results (#16) and Staff meetings (#21), as well as feedback from Divisions to the Principal and Vice Principal (#13), One-on-One Feedback (#14) and Surveys (#15). It is also interesting to note that many of these initiatives describe a communication flow which, although vertical, is upward where information is provided from employees to management. This indicates the importance this organization places on involving employees and addressing their concerns.

As was the case in the above section for horizontal / informal communication, many initiatives display both formal and informal characteristics which make it somewhat difficult to define. However some initiatives could be said to be more formal in nature. Initiative #6 (Involvement in Planning) is a formalized process with several components (revision of plans and input into the organization of the school). Information provided on BEAM (the School Board Intranet) (#7 & #8) and Communication of Results (#16) depend on an organized process.

*b. Descriptive Analysis*

As presented earlier, communication initiative questions were developed specifically for this study and measured employees’ perception of the initiatives’ success in changing an attitude and a behaviour. *Table 7* shows that Chronbach’s Alpha for individual dimensions of this scale was  $\alpha = .925$  for attitudes and  $.906$  for behaviour questions meaning that this scale shows high levels of reliability.

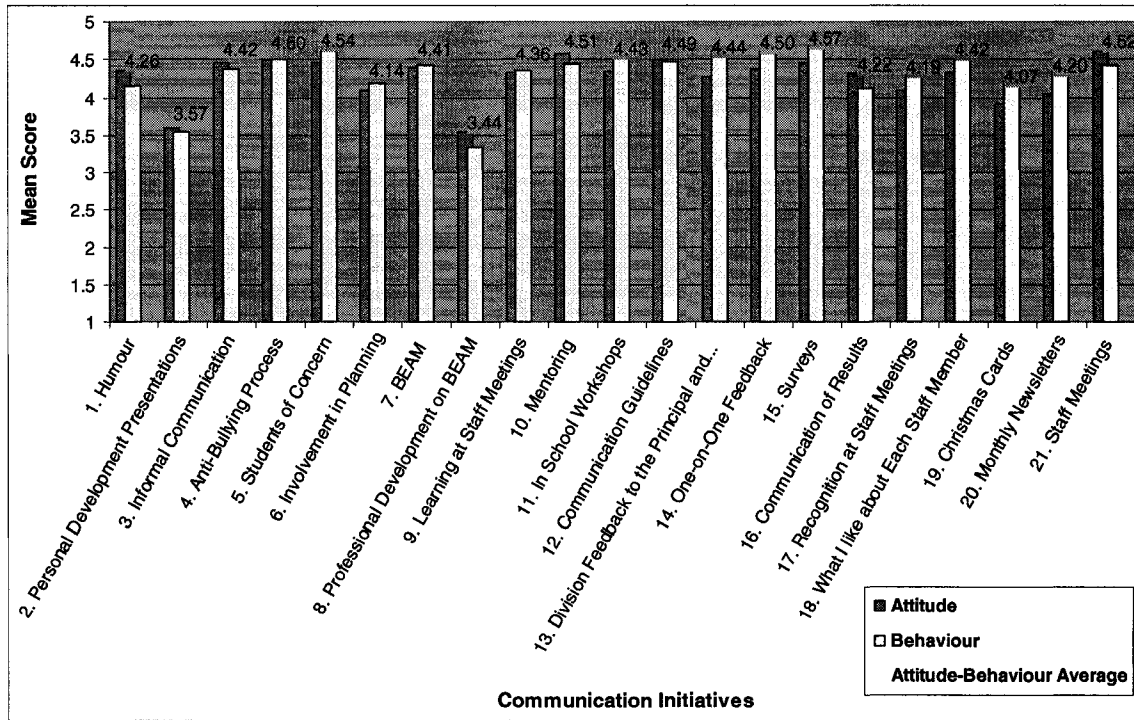
**Table 7 - Communication Initiatives - Scale Reliability Statistics**

<b>Scale Dimension</b>	<b>Cronbach’s Alpha</b>	<b>Mean Inter-item correlation</b>
Attitude	.925	.389
Behaviour	.906	.358

*i. Findings.* As seen earlier, 21 communication initiatives were assessed through the questionnaire to determine employees’ perceived effect of the initiative on changing their attitudes and behaviours. On a scale of 1 to 5 where 5 represented the strongest agreement with the survey statement, average scores for each initiative per survey dimension ranged between 3.34 (#8 Professional Development on BEAM – Behaviour) and 4.67 (#15 Surveys - Behaviour) (see *Figure 7, Table 8*). This indicates that, overall, respondents felt that all initiatives had, in fact, an effect on the attitudes and behaviours assessed in the survey. This is consistent with the findings of Allen and Brady (1997) who concluded that employees in organizations implementing QM were often positive towards the organization’s communication and information. However, some initiatives appear to have been more successful than others. For example, when the attitude and behaviour aggregate scores are averaged, (#15) Surveys, (#5) Students of Concern and (#21) Staff Meetings (with average scores of 4.57, 4.54 and 4.57 respectively) were among the highest rated communication initiatives to have had an effect on the attitudes

and behaviours selected for the survey. On the other hand, employees reported that (#8) Professional Development on BEAM (school board Intranet) and (#2) Professional Development Presentations (3.44, 3.57 respectively) had a lesser effect.

**Figure 7 - Communication Initiatives Summary**



**Table 8 - Communication Initiatives Summary**

Communication Initiative*	Attitude	Behaviour	Average
1. Humour	4.36	4.16	4.26
2. Personal Development Presentations	3.60	3.54	3.57
3. Informal Communication	4.45	4.39	4.42
4. Anti-Bullying Process	4.50	4.50	4.50
5. Students of Concern	4.46	4.61	4.54
6. Involvement in Planning	4.09	4.20	4.14
7. BEAM (Intranet)	4.40	4.43	4.41
8. Professional Development on BEAM	3.55	3.34	3.44
9. Learning at Staff Meetings	4.34	4.37	4.36
10. Mentoring	4.59	4.44	4.51
11. In-school Workshops	4.36	4.50	4.43
12. Communication Guidelines	4.50	4.48	4.49
13. Division Feedback to the Principal and Vice Principal	4.28	4.61	4.44
14. One-on-One Feedback	4.39	4.61	4.50

15. Surveys	4.47	4.67	4.57
16. Communication of Results	4.32	4.13	4.22
17. Recognition at Staff Meetings	4.10	4.29	4.19
18. What I like about Each Staff Member	4.33	4.50	4.42
19. Christmas Cards	3.92	4.22	4.07
20. Monthly Newsletters	4.05	4.35	4.20
21. Staff Meetings	4.61	4.44	4.52
<b>Average</b>	<b>4.27</b>	<b>4.32</b>	<b>4.30</b>
* a description of each initiative is available in Appendix 4.			

*ii. Discussion.* The above mentioned table demonstrates that, overall and at varying degrees, respondents feel that all initiatives selected for inclusion in this study were successful in changing the attitude and the behaviour assessed for each initiative. In addition to changing employees, these initiatives may have contributed to their high commitment levels. As explained earlier, the definition of commitment used in this thesis includes both attitudes and behaviours, two essential dimensions supported by the organizational commitment literature (Meyer & Allen, 1991). The assessment of the communication initiatives conducted for this organization supported this claim by assessing the change in attitudes and behaviours as a result of a communication initiative. If this definition is correct, it is conceivable that these initiatives successfully contributed to the employee's commitment within the organization.

It can also be advanced that although changing specific attitudes and behaviours was not a conscious decision, the original intent nor the ultimate objective of the communication initiatives when they were first implemented by the management of the school, these initiatives were all reported in their NQI PEP application as being components of its QM implementation plan. This further supports the claim that the communication initiatives included in this study are related to levels of commitment, specifically commitment to quality.

#### 4. Attitude and Behaviour Dimensions (Factor Analysis)

For each communication initiative identified in the school's NQI application and included in the questionnaire (Appendix 4), two questions were posed. They asked employees to rate the degree to which they changed an attitude and the degree to which they implemented a behaviour as a result of that communication initiative (see Appendix 6). Although information was extrapolated for individual communication initiatives through the survey data in the previous section, additional insight can be gained through the discovery of factors which are not obvious to the naked eye. By using factor analysis, it was possible to identify underlying similarities within variables which were closely related. Once the factors were extracted and rotated (as detailed in the previous chapter), the results were ready to be interpreted.

As part of the process to define and propose a name for each factor, all survey items where the factor loading was above .500 were included; however, items with a factor loading of less than .500 were included when they contributed to the understanding and description of the factor. This is shown below in *Table 10* (attitudes) and *Table 18* (behaviours) where variables which contributed to the naming of the factor are highlighted. Two separate analyses led to the identification of twelve communication factors. They were:

##### **Attitude Dimension**

1. Involvement
2. Work-life balance
3. Connectedness
4. Learning Culture
5. Formal Communication
6. Informal Communication

##### **Behaviour Dimension**

1. Accountability
2. Formal Communication
3. Learning Culture
4. Involvement
5. Information Sharing
6. Employee Development

The next section describes each factor identified during this process and demonstrates how these factors were named based on each of the survey questions. For clarity in the following section, the survey questions are numbered from 1 to 21 representing each of the 21 communication initiatives included in this study. In addition, they are referred to as either ‘A’ representing the questions related to attitudes or ‘B’ representing the questions related to behaviours.

*a. Factors explaining communication’s effect on attitudes*

Factor analysis for the attitude dimension of the communication initiatives studied in this survey revealed that six factors accounted for 83.5% of variance (*Table 9*). Those six factors are represented in *Table 10* where factor loadings used to describe and name each factor are highlighted from among the 21 survey questions related to the attitude dimension of the communication initiatives.

**Table 9 - Factor Analysis, Total Variance Explained - Attitudes**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.106	43.363	43.363	9.106	43.363	43.363	4.838	23.037	23.037
2	2.257	10.746	54.109	2.257	10.746	54.109	3.237	15.416	38.453
3	1.915	9.121	63.229	1.915	9.121	63.229	2.832	13.486	51.939
4	1.675	7.978	71.207	1.675	7.978	71.207	2.750	13.093	65.032
5	1.520	7.238	78.445	1.520	7.238	78.445	2.564	12.208	77.240
6	1.062	5.058	83.503	1.062	5.058	83.503	1.315	6.263	83.503
7	.802	3.820	87.323						
8	.649	3.088	90.412						
9	.487	2.319	92.731						
10	.426	2.029	94.759						
11	.341	1.626	96.385						
12	.253	1.203	97.589						
13	.155	.738	98.327						
14	.096	.457	98.783						
15	.087	.413	99.197						
16	.067	.318	99.515						
17	.039	.183	99.698						
18	.030	.143	99.841						
19	.017	.080	99.921						
20	.012	.059	99.980						
21	.004	.020	100.000						

Extraction Method: Principal Component Analysis.

**Table 10 - Rotated Component Matrix - Attitudes**

ATTITUDES	Component					
	1	2	3	4	5	6
1A. Humour within the school helps me find a sense of balance for what is important for me, for staff, students and parents.	.029	<b>.840</b>	.085	.340	.087	.199
2A. Thanks to personal development presentations, I feel like I can do excellent work while respecting my personal limits.	.083	<b>.721</b>	.349	-.284	-.014	.086
3A. I am a better team member because I have the ability to discuss professional issues and provide input at any time.	.091	.083	.039	<b>.927</b>	-.052	.064
4A. I feel that the anti-bullying process fosters mutual respect and equity to create an optimum learning environment.	.219	.387	.258	.089	<b>.624</b>	<b>-.428</b>
5A. I can improve student performance through discussions to devise plans and contracts that support the "Refuse to Lose" motto.	.370	.424	-.320	.115	<b>.576</b>	.024
6A. I feel that my input allows the school to take a factual approach to decision-making and involve every stakeholder.	<b>.844</b>	.134	-.042	<b>.448</b>	.046	.013
7A. BEAM deals with routine issues, allowing us to discuss "big questions" in meetings more efficiently.	.398	.292	<b>.685</b>	.251	-.051	.109
8A. Professional development articles posted on BEAM help me improve processes and implement continuous improvement.	.231	.228	.290	.189	.189	<b>.756</b>
9A. Peer coaching, support and learning help me implement change for continuous improvement.	.079	.267	<b>.521</b>	<b>.415</b>	.438	<b>.347</b>
10A. The support of mentoring helps new employees maintain a career in education.	<b>.605</b>	.178	.172	<b>.565</b>	.005	-.241
11A. Following a workshop, I feel a responsibility to implement what I learned to improve my performance.	.163	-.037	.238	<b>.788</b>	.418	.175
12A. I feel that communication guidelines improve the efficiency of this school.	.407	<b>.556</b>	.187	-.059	<b>.622</b>	-.016
13A. Factual decision-making is based on information sharing with the Principal and / or Vice Principal.	<b>.835</b>	.100	.367	-.063	.165	<b>.268</b>
14A. I feel that the Principal and Vice Principal value my skills and competencies as a professional through open and honest feedback.	<b>.884</b>	.003	-.011	.252	.157	.043
15A. The survey feedback I provide is valuable because it provides important data to improve school processes and systems.	<b>.508</b>	<b>.721</b>	.039	.143	.172	-.081
16A. Knowledge and data allow me to be involved in factual decision-making.	<b>.624</b>	.285	.479	.104	.153	-.138
17A. Learning about a colleague's success inspires me to surpass myself for the benefit of the organization.	.094	.042	<b>.833</b>	.031	.132	.164
18A. This exercise helps me value the strengths of my colleagues and helps me feel good about my contributions.	<b>.658</b>	.460	.250	-.036	.134	.211

19A. Employee recognition through the Christmas cards supports our focus on student success.	.080	-.090	.130	.091	<b>.889</b>	.211
20A. I feel that the newsletter helps me stay connected to important issues.	.294	.475	<b>.557</b>	.299	.141	-.265
21A. Face-to-face meetings promote staff involvement, cooperation and teamwork necessary to support effective decision-making.	<b>.698</b>	.219	.368	-.247	.299	.050

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 Rotation converged in 9 iterations.

*i. Involvement.* Factor I (attitudes) is related to the recognition of individual competencies for involvement in decision-making.

The survey questions included in this factor for communication attitudes had several common themes. As shown in *Table 11* below, decision-making and improvement of school processes are very important where they are mentioned in relation to involving stakeholders (6A), information sharing (13A), meetings (21A), and is supported by knowledge, data and facts (16A). Another theme found is communication which is supported through: open and honest feedback (14A), input (6A), information sharing (13A), face-to-face meetings (21A), peer-recognition (18A), data (16A), mentoring (10A) and survey feedback (15A). The next theme relates to training supported by mentoring (10A) to enhance professional skills and competencies (14A) which provide tools for individuals to successfully contribute to decision-making. Finally, the value brought to the organization from individuals and during interaction with colleagues was also evident. As demonstrated in *Table 11*, there is reference to the importance of feeling valued by management (14A), of valuing others' strengths (18A) and valuing the opportunity to provide feedback (15A) which is open and honest (14A).

Reflecting all themes found in this series of questions, this factor may suggest that training and communication enable involvement in the school’s decision-making process which promotes a feeling of being valued. This led the researcher to name this factor “involvement” since many of the themes found above are reflected in one view of employee involvement. Tari & Sabater (2006) state that employee involvement plays an important role within QM as a tool for improvement because it enables decision-making by receiving information about the organization, training for better opportunities to be involved and performance rewards which could be associated with employee recognition.

**Table 11 - Factor I – Attitudes - Involvement**

<b>Involvement</b>	<b>Factor Loading</b>
I feel that the Principal and Vice Principal value my skills and competencies as a professional through open and honest feedback (14A)	.884
I feel that my input allows the school to take a factual approach to decision-making and involve every stakeholder (6A)	.844
Factual decision-making is based on information sharing with the Principal and / or Vice Principal (13A)	.835
Face-to-face meetings promote staff involvement, co-operation and teamwork necessary to support effective decision-making (21A)	.698
This exercise (‘what I like about each staff member’) helps me value the strengths of my colleagues and helps me feel good about my contributions (18A)	.658
Knowledge and data allow me to be involved in factual decision-making (16A)	.624
The support of mentoring helps new employees maintain a career in education (10A)	.605
The survey feedback I provide is valuable because it provides important data to improve school processes and systems (15A)	.508

*ii. Work-Life Balance.* Factor analysis revealed that four communication attitude questions from the survey were sufficiently related to compose the next factor. Factor II (attitudes) reflects variables emphasizing both organizational and individual objectives (Table 12), highlighting the balance between quality work and personal limits.

Variable 1A describes the importance of humour within the school to help balance individual goals with the demands of the job. This is supported with professional

development activities helping teachers reconcile personal limits with excellence (2A). On the other hand, the factor analysis found that survey feedback to improve school processes and systems (15A) and the presence of communication guidelines for school efficiency (12A) were also related to this factor. This suggests that this organization has implemented guidelines, professional development and informal practices such as humour to support both school efficiency and excellence through processes and systems to meet employee’s human needs.

In the literature, work-life balance involves the achievement of balance between personal and professional objectives as well as home life and work life (Sturges & Guest, 2004). For Caprioni (2004), it also includes other non-professional interests and personal satisfaction with efficiency levels at the workplace. Based on these interpretations of work-life balance, this is the term used to describe this factor.

**Table 12 - Factor II – Attitudes – Work-Life Balance**

<b>Work-life Balance</b>	<b>Factor Loading</b>
Humour within the school helps me find a sense of balance for what is important for me, for staff, students and parents (1A)	.840
The survey feedback I provide is valuable because it provides important data to improve school processes and systems (15A)	.721
Thanks to personal development presentation, I feel like I can do excellent work while respecting my personal limits (2A)	.721
I feel that communication guidelines improve the efficiency of this school (12A)	.556

*iii. Connectedness* is the name of Factor III (attitudes). As shown in *Table 13*, it is also composed of four questions which all lead to a notion of relationships with peers and with the organization.

Information about colleagues (17A), coaching and support (9A), attending meetings (7A) and reading the newsletter (20A) are activities that help respondents stay

in contact with other employees. Knowledge of news and events is acquired by learning about colleagues’ successes (17A), learning through the Intranet (BEAM) (7A), attending meetings (7A) and reading the newsletter (20A). One objective found within the statements forming this factor is organizational efficiency and improvement as seen in question 17A (“surpass myself for the benefit of the organization”), efficiency during meetings (7A), and learning for continuous improvement (9A).

Connections are defined as “a psychological or emotional association between people, things or events” (Soukhanov, 2004), “established between functional units for conveying information” (Weik, 1996). They are also associated with networks and relationships (Stohl, 1995) to manage information for decision-making with an emphasis on collaboration and efficiency (Cicso Systems; Rosenfeld, Richman & May, 2004). In this research, it is believed that ‘connectedness’ represents the essence of this factor which deals with communication’s role in helping employees relate to each other and to the organization, inspiring them to surpass themselves, enabling them to improve personal competencies and to solve organizational issues.

**Table 13 - Factor III – Attitudes - Connectedness**

<b>Connectedness</b>	<b>Factor Loading</b>
Learning about a colleague’s success inspires me to surpass myself for the benefit of the organization (17A)	.833
BEAM deals with routine issues, allowing us to discuss “big questions” in meetings more efficiently (7A)	.685
I feel that the newsletter helps me stay connected to important issues (20A)	.557
Peer coaching, support and learning help me implement change for continuous improvement (9A)	.521

*iv. Learning Culture.* This factor is related to personal accountability for learning and responsibility for teaching therefore it is named “Learning Culture”. As visible in

*Table 14* above, only two variables (3A and 11A) loaded highly on this factor and low on all others. Although three other variables (10A, 6A, 9A) have already been used to describe Factors I and III and they displayed moderate loadings for this factor (.565, .448 and .415 respectively), they were included (*Table 14*) to provide a better picture for interpretation. When combined together with other questions, a different theme emerges.

As a whole, the organization benefits from learning through input from stakeholders (6A, 3A) to continuously improve performance (9A, 11A) and reduce employee turn-over (10A). Discussing professional issues (3A), employee mentoring (10A), peer coaching, support and learning (9A) as well as involvement of all stakeholders (6A) evoke the importance of personal relations for improvement. Many of the communication initiatives in this factor suggest the presence of informal relations: input can be provided at any time (3A) and employees can seek mentoring or coaching support as needed (10A, 9A). Because these relationships are often informal, this factor demonstrates a sense of individual responsibility for the well-being of colleagues and the organization as a whole. It is up to individual team members to bring-up professional issues (3A); they also “feel a responsibility to implement what [they] learned” (11A), and take responsibility for supporting employees who are new to the profession (10A) while providing input into the decision-making process (6A).

This factor represents a ‘culture’ of learning because, as seen earlier, the learning process relies heavily on personal accountability, responsibility and initiative. As defined by Egan, Yang and Bartlett (2004), a learning culture includes motivation to use skills and knowledge acquired either through formal or informal channels and transmit or

reassign this knowledge through appropriate attitudes ensuring the effectiveness of this process.

**Table 14 - Factor IV – Attitudes – Learning Culture**

<b>Learning Culture</b>	<b>Factor Loading</b>
I am a better team member because I have the ability to discuss professional issues and provide input at any time (3A)	.927
Following a workshop, I feel a responsibility to implement what I learned to improve my performance (11A)	.788
The support of mentoring helps new employees maintain a career in education (10A)	.565
I feel that my input allows the school to take a factual approach to decision-making and involve every stakeholder (6A)	.448
Peer coaching, support and learning help me implement change for continuous improvement (9A)	.415

v. *Formal Communication.* Factor V (attitudes) deals with student performance and well-being through formal channels and is named Formal communication. As was the case for the previous factor, one variable (12A, Factor II) was reused here.

This factor emphasises organizational objectives. For example, the attitude question for communication initiative 19A deals with student success while the next one (4A) is about the school’s anti-bullying process. Student performance through plans and contracts that support the school’s motto (5A) and communication guidelines in general (12A) are found within this factor. These initiatives’ objectives include improved performance (5A), improved efficiency (12A), creation of an optimum learning environment (4A) and, finally, student success (19A). Another common thread within these initiatives is the fact that information tends to come from management. For example, the administration recognizes employees through Christmas cards (19A). By extension, the fact that some information is documented by the organization also suggests the presence of ‘top-down’ communication which sets expectations from employees. This

includes measures to prevent bullying (4A), communication guidelines (12A) as well as plans (5A), contracts and the school motto (5A) which are documented.

The researcher believes that this factor should be designated as formal communication. Traditionally, formal communication is described as top down communication from an official or authoritative source for the purpose of meeting organizational objectives through formal mechanisms (Johnson et al., 1994). Together, the above variables meet this description because they indicate that formalized or documented information from management are used to meet organizational objectives.

**Table 15 - Factor V – Attitudes – Formal Communication**

<b>Formal Communication</b>	<b>Factor Loading</b>
Employee recognition through the Christmas cards supports our focus on student success (19A)	.889
I feel that the anti-bullying process fosters mutual respect and equity to create an optimum learning environment (4A)	.624
I feel that communication guidelines improve the efficiency of this school (12A)	.622
I can improve student performance through discussions to devise plans and contracts that support the “Refuse to Lose” motto (5A)	.576

*vi. Informal Communication.* The last factor describing communication’s effect on employee attitudes within the school’s QM program (*Table 16*) contrasts the previous factor by suggesting that informal communication which is not imposed upon employees is a preferred method to stimulate continuous improvement.

In fact, continuous improvement is explicitly mentioned in Questions 8A and 9A and is implied in Questions 4A and 13A where the presence of a learning environment reinforces continuous improvement through learning. Furthermore, these initiatives are not imposed upon employees; the articles published on the Intranet (BEAM) depend on employees ‘pulling’ the information as needed (8A); this shows that professional

development does not necessarily depend on mandatory attendance to a workshop or on a formalized schedule. Variable 9A echoes this idea where learning depends on peer coaching and support as well as on initiatives which are most likely sponsored by management but not necessarily imposed. In addition, these variables have similarities in the respondents' preference for informal communication. For example, although 13A has a weaker loading with .268, it nevertheless supports the notion that information flows from employees to management in a two-way process. Results of the survey reported that the anti-bullying process (#4) was among the most effective of the communication initiatives in influencing attitudes (see *Figure 7 / Table 8*) and it was included in the previous factor. However, variable 4A (anti-bullying process) also appears in this factor with a negative loading. Assuming that the anti-bullying process is a formal course of action for employees to follow when needed, its negative correlation to other questions in this factor would support the assertion that this group of questions suggest informal communication. Finally, support and peer coaching (9A) depend on interactions between peers (rather than with management) and it is assumed in this thesis that professional development articles posted on the Intranet (8A) can originate from various sources including informal ones.

Three themes highlighted in this factor were continuous improvement, the access of information as required (rather than being imposed upon employees by management) and informal communication approaches. These characteristics can all support the notion of informal communication which are usually associated with the creation of innovation (such as continuous improvement) as well as informal structures, autonomy, and relationships which do not depend on the position occupied by individuals in the

organization (Johnson et al., 1994). This description of informal communication channels leads us to use the term information communication for Factor VI (attitudes).

**Table 16 - Factor VI – Attitudes – Informal Communication**

<b>Informal Communication</b>	<b>Factor Loading</b>
Professional development articles posted on BEAM help me improve processes and implement continuous improvement (8A)	.756
I feel that the anti-bullying process fosters mutual respect and equity to create an optimum learning environment (4A)	-.428
Peer coaching, support and learning help me implement change for continuous improvement (9A)	.347
Factual decision-making is based on information sharing with the Principal and / or Vice Principal (13A)	.268

To summarize what has just been seen, factor analysis has enabled the identification of six factors to help describe and characterize communication initiatives’ effect on attitudes. They were I. Involvement, II. Work-life balance, III. Connectedness, IV. Learning Culture, V. Formal Communication and VI. Informal Communication. Next, the same process is repeated to identify the behaviour factors.

*b. Factors explaining communication’s effect on behaviours*

The previous section identified six factors dealing with employee changes in attitudes which were based on 21 communication initiatives used to support QM implementation in the school selected for this study. As seen next, the survey questions on behaviour which were posed for the same communication initiatives were used to identify and describe the communication factors dealing with employees’ change in behaviour. Six factors were identified for this dimension of the survey, accounting for 80.7% of variance (Table 17).

**Table 17 - Factor Analysis, Total Variance Explained - Behaviours**

Component	Total Variance Explained									
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	8.601	40.958	40.958	8.601	40.958	40.958	3.732	17.774	17.774	
2	2.200	10.477	51.435	2.200	10.477	51.435	3.486	16.598	34.372	
3	2.035	9.691	61.126	2.035	9.691	61.126	2.820	13.430	47.802	
4	1.542	7.345	68.471	1.542	7.345	68.471	2.534	12.065	59.867	
5	1.351	6.432	74.903	1.351	6.432	74.903	2.497	11.891	71.757	
6	1.212	5.771	80.673	1.212	5.771	80.673	1.872	8.916	80.673	
7	.958	4.562	85.235							
8	.737	3.509	88.744							
9	.473	2.255	90.999							
10	.440	2.096	93.095							
11	.370	1.760	94.855							
12	.334	1.591	96.445							
13	.260	1.238	97.683							
14	.141	.671	98.354							
15	.103	.490	98.844							
16	.087	.412	99.256							
17	.073	.346	99.603							
18	.047	.226	99.829							
19	.023	.110	99.939							
20	.012	.059	99.997							
21	.001	.003	100.000							

Extraction Method: Principal Component Analysis.

**Table 18 - Rotated Component Matrix - Behaviours**

BEHAVIOURS	Component					
	1	2	3	4	5	6
1B. I use humour to make this school a better place because the administration encourages its use.	<b>.581</b>	.266	.358	-.122	.179	.288
2B. Following personal development presentations, I have set effective priorities to reduce stress and become better at my job.	.017	<b>.651</b>	.053	.028	.126	<b>.624</b>
3B. I have used staff room discussions, hallway conversations and / or the open-door policy to discuss professional issues and resolve them as they arise.	.040	.039	.113	<b>.871</b>	.051	.090
4B. I implement the anti-bullying process consistently in every situation for the best interest of students.	<b>.815</b>	.107	.021	.033	.009	-.053
5B. I participate (or would participate) in discussions surrounding students of concern to support their achievements.	<b>.787</b>	.213	.218	.264	.119	.138
6B. As a result of my involvement in planning, I take action or adopt measures to meet the objectives of the school's improvement plan.	<b>.564</b>	<b>.519</b>	.057	.378	.302	.042
7B. BEAM is the first place I look to find information about operational / routine issues so that I can be more effective at my job.	.078	.377	.138	.438	<b>.690</b>	-.050
8B. I have implemented techniques or ideas presented on BEAM (such as Brain Research Techniques) to improve my work performance.	.169	.377	<b>.639</b>	.095	-.306	.018
9B. I have (or would) implement a new practice after learning	-.066	.165	<b>.790</b>	.041	.436	.066

from colleagues.						
10B. I have consulted a more experienced teacher, guidance counselor or a subject-area peer to improve my performance.	-.001	.069	<b>.710</b>	<b>.603</b>	.169	.146
11B. I make a conscious effort to implement something that I learned in a workshop.	.311	.016	<b>.756</b>	.326	.166	.093
12B. I make an effort to constantly use the communication guidelines.	.452	<b>.748</b>	.174	.140	.097	-.096
13B. I share information with my Division Leader, the Principal and / or Vice Principal so that they are informed of important matters.	<b>.680</b>	.046	.073	-.026	<b>.566</b>	.105
14B. I have taken (or would take) advantage of opportunities to provide and receive one-on-one feedback to continuously improve.	<b>.552</b>	.204	.184	-.014	<b>.712</b>	.017
15B. I participate in surveys and complete them with care and honesty.	.191	<b>.664</b>	.132	.415	.110	.154
16B. I implemented change in support of the school's objectives as a result of survey / research information being communicated.	.091	<b>.883</b>	.106	-.094	.265	.037
17B. I have recognized a colleague during a staff meeting or would immediately do so as appropriate.	.024	-.074	.129	.157	-.105	<b>.891</b>
18B. I have made a conscious effort to maintain and / or share the skills, competencies or knowledge colleagues identified for me.	.339	.293	.044	.053	.461	<b>.602</b>
19B. I have made an effort to maintain the action or competency mentioned in my Christmas card.	.499	-.025	<b>.599</b>	-.298	-.064	.059
20B. When I read the newsletter, I make note of issues for me to follow-up on as necessary (inform class, note date in agenda, etc.).	<b>.518</b>	.463	.071	<b>.514</b>	.111	.346
21B. I give my full contribution and participation at meetings to ensure my active involvement in decision-making.	.079	.468	.127	<b>.539</b>	<b>.605</b>	.083
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 8 iterations.						

*i Accountability.* Factor I (behaviour) implies the support of organizational objectives such as student success through compliance with management vision and personal accountability and thus has been labelled as “accountability” in this thesis. The variables used to analyse this factor are shown in *Table 19*.

Evidence of meeting organizational goals are found within the seven survey items forming this factor which refer to “the best interest of students” (4B), support of student achievements (5B), “important matters” (13B), the school’s improvement plan (6B) and informing students about important items from the newsletter (20B). If continuous improvement is also a fundamental principal or concept of QM (as seen in the definition of QM earlier in this thesis), this statement can be extended to other items where continuous improvement (14B) and “making the school a better place” (1B) represent an important QM objective for this organization. These items also include a component suggesting that employees take initiative and responsibility to support school objectives: “implement” (4B), “share information” (13B), “use humour” (1B), “take action” (6B), “provide and receive feedback” (14B) and “make note of issues” (20B). This is done through interactions with other members of the organization through participation (5B), sharing (13B) and one-on-one feedback (14B). Finally, a sense of accountability is found in statements such as applying rules consistently (4B), informing the organization of important matters (13B), meeting the objectives of the plan (6B) and following-up on important issues (20B) where employees can use these actions to demonstrate that they comply with expectations from management.

The notion of accountability represents the support of organizational objectives through compliance with management’s vision (Coyle-Shapiro & Morrow, 2003). It is also related to interactions and exchange, to a sense of individual responsibility and concern for the organization as a whole, and to the process of “being called to account to some authority for one’s actions” (Mulligan, 2000). This definition is consistent with the

themes found in this variable which were meeting organizational goals, individual initiative and accountability towards management.

**Table 19 - Factor I – Behaviours - Accountability**

<b>Accountability</b>	<b>Factor Loading</b>
I implement the anti-bullying process consistently in every situation for the best interest of students (4B)	.815
I participate (or would participate) in discussions surrounding students of concern to support their achievements (5B)	.787
I share information with my division Leader, the principal and / or Vice Principal so that they are informed of important matters (13B)	.680
I use humour to make this school a better place because the administration encourages its use (1B)	.581
As a result of my involvement in planning, I take action or adopt measures to meet the objectives of the school’s improvement plan (6B)	.564
I have taken (or would take) advantage of opportunities to provide and receive one-on-one feedback to continuously improve (14B)	.552
When I read the newsletter, I make note of issues for me to follow-up on as necessary (inform class, note date in agenda, etc.) (20B)	.518

*ii. Formal Communication.* Made up of five variables, Factor II (behaviour) is named formal communication because it implies the use of information channels between employees and management which are formal in nature.

For example, 16B states that change occurred as a result of survey or research being communicated to employees while 15B deals with information provided by employees to management through the survey. In addition, 6B mentions the improvement plan which is presumably communicated by management. The constant use of communication guidelines (12B) supported by the administration are also part of this factor. These items are characterized with structured communication channels or processes such as guidelines (12B), surveys (15B & 16B) and presentations (2B). The

benefit of the organization as a whole is evident throughout comments such as supporting the school’s objectives (16B, 6B) and becoming better at the job (2B).

Two characteristics of formal communication seen earlier for Factor V - Attitudes were: information sent to employees by management and establishing organized and structured communication processes for the good of the organization (Johnson et al., 1994). Therefore, the definition of formal communication presented earlier can also be applied to this factor relating to behaviours.

**Table 20 - Factor II – Behaviours – Formal Communication**

<b>Formal Communication</b>	<b>Factor Loading</b>
I implemented change in support of the school’s objectives as a result of survey / research information being communicated (16B)	.883
I make an effort to constantly use the communication guidelines (12B)	.748
I participate in surveys and complete them with care and honesty (15B)	.664
Following personal development presentations, I have set effective priorities to reduce stress and become better at my job (2B)	.651
As a result of my involvement in planning, I take action or adopt measures to meet the objectives of the school's improvement plan (6B)	.519

*iii. Learning Culture.* As is the case for the Formal Communication factor presented above, the group of variables forming Factor III (in *Table 21*) is similar to a factor seen earlier for the attitude variables of the survey. Communication initiatives found in this factor as well as Factor IV – Attitudes (Learning Culture) presented earlier are #9 Learning at Staff Meetings, #10 Mentoring and #11 In-School Workshops.

Learning and personal development are represented through expressions such as learning from colleagues (9B), learning in workshops (11B), consulting a colleague (10B), implementing techniques or ideas from the Intranet (8B) and maintaining competencies (19B). These actions involve both formal learning (workshops) and informal learning (consulting colleagues). In addition, they present communication

initiatives where learning and training are initiated by management -- Christmas cards (19B) and workshops (11B) -- or by employees themselves: consulting colleagues (9B, 10B) and researching the Internet (8B).

These themes represent a ‘culture’ of learning since, as defined earlier, both management and employees have the responsibility of initiating learning activities which will lead to the improvement of the school (Egan, Yang & Bartlett, 2004).

**Table 21 - Factor III – Behaviours – Learning Culture**

<b>Learning Culture</b>	<b>Factor Loading</b>
I have (or would) implement a new practice after learning from colleagues (9B)	.790
I make a conscious effort to implement something that I learned in a workshop (11B)	.756
I have consulted a more experienced teacher, guidance counsellor or a subject-area peer to improve my performance (10B)	.710
I have implemented techniques or ideas presented on BEAM (such as Brain Research Techniques) to improve my work performance (8B)	.639
I have made an effort to maintain the action or competency mentioned in my Christmas card (19B)	.599

*iv. Involvement.* Composed of four variables, involvement (Factor IV – behaviours – *Table 22*) is a common thread within the communication initiatives’ reported effect on behaviours for the fourth factor and once again, this factor is similar to one seen earlier for the attitude dimension of this study.

Resolving professional issues as they arise (3B), improving performance (10B), participation and involvement in decision-making (21B) and following-up on issues (20B) imply action. Although many themes are presented within these questions, they all have the objective to meet organizational goals or take an action that will ultimately improve the whole organization. These actions come from personal accountability or

responsibility as they are not imposed by management. Staff-room discussions, hallway conversations and making use of the open-door policy (3B), consulting colleagues (10B), active involvement (21B), reading the newsletter and making notes as necessary (20B) all require initiative from the employee rather than waiting for management to initiate the contact. These variables also involve the collection of information which is useful in making decisions: professional issues (3B), involvement in decision-making (21B) and information in the newsletter (20B). Personal development is also evident in variables 3B (to resolve issues) and 10B (improve performance).

In this thesis, this factor is designated as Involvement based on the definition provided earlier which includes decision-making through organizational information, training and performance development (Tari & Sabater, 2006).

**Table 22 - Factor IV – Behaviours - Involvement**

<b>Involvement</b>	<b>Factor Loading</b>
I have used staff room discussions, hallway conversations and / or the open-door policy to discuss professional issues and resolve them as they arise (3B)	.871
I have consulted a more experienced teacher, guidance counsellor or a subject-area peer to improve my performance (10B)	.603
I give my full contribution and participation at meetings to ensure my active involvement in decision-making (21B)	.539
When I read the newsletter, I make note of the issues for me to follow-up on as necessary (inform class, note date in agenda, etc.) (20B)	.514

v. *Information Sharing*. An appropriate label for the fifth communication factor related to changes in behaviours is information sharing because it is a common theme among all four variables in this factor (*Table 23*).

Information sharing is found in reference to: providing and receiving one-on-one feedback (14B), finding information (on the Intranet) (7B), contributing and participating in meetings (21B) and sharing information with management (13B). The exchange of

information is not ‘pushed’ by management. Rather, it is initiated by employees who “take advantage of opportunities” (14B), seek information (7B), are actively involved (21B) and share information (13B). This factor makes reference to both personal objectives (feedback for continuous improvement (14B)) and to organizational objectives (operational or routine issues for job efficiency (7B), involvement in decision-making (21B) and providing information about “important matters” (13B)). Decision-making is also an objective of this factor (21B).

Information sharing can be described as a “task behaviour” where employees freely provide or ask for opinions, suggestions and information while expressing feelings and ideas about the task (Jehn & Shah, 1997). It also plays an important role in the decision-making process (Gigone & Hastie, 1993). Because the variables of this factor all have a component of feedback, improvement or organizational efficiency through the exchange of information, this factor was named “Information Sharing”.

It could be said that this factor is similar to the ‘Connectedness’ factor (Factor III – Attitudes) presented earlier because it emphasizes information flow for the purpose of meeting organizational objectives. However, the ‘Connectedness’ factor in attitudes represented affective needs (“inspiration” (17A), staying connected with issues (20A) and peer support (9A)) while information sharing within this group of factors observing behaviours represents instrumental objectives (continuous improvement (14B) and decision-making (21B, 13B)). Furthermore, only initiative #7 BEAM (Intranet) is common to both factors.

**Table 23 - Factor V – Behaviours – Information Sharing**

<b>Information Sharing</b>	<b>Factor Loading</b>
I have taken (or would take) advantage of opportunities to provide and receive one-on-one feedback to continuously improve (14B)	.712
BEAM is the first place I look to find information about operational / routine issues so that I can be more effective at my job (7B)	.690
I give my full contribution and participation at meetings to ensure my active involvement in decision-making (21B)	.605
I share information with my Division Leader, the Principal and / or Vice Principal so that they are informed of important matters (13B)	.566

*vi. Employee Development.* The sixth and last factor is composed of three variables which refer to peer appreciation and to skills and development. It is named Employee Development.

While 17B states that employees have or would recognize a colleague, 18B refers to sharing knowledge with others. In addition to supporting each other, this group of questions places an emphasis on skills, competencies and knowledge (18B & 2B). These are acquired during school workshops or presentations (2B) and are highlighted and reinforced by colleagues (17B, 18B). They may imply both professional (17B, 18B) and personal development (2B) for increased effectiveness. This factor is characterized by management's involvement in this process when conducting personal development presentations (2B), providing time at staff meetings for recognizing the positive (17B) and conducting the "What I like about each staff member" activity where employees identify the strengths of their colleagues (18B).

For Tansky and Cohen (2002), employee development is provided by the employer and represents long-term individual growth from personal and professional perspectives to increase confidence during interactions and to maintain organizational

effectiveness. The components of this definition are reflected in the variables shown in *Table 24* and thus this factor is named “Employee Development”.

**Table 24 - Factor VI – Behaviours – Employee Development**

<b>Employee Development</b>	<b>Factor Loading</b>
I have recognized a colleague during a staff meeting or would immediately do so as appropriate (17B)	.891
Following personal development presentations, I have set effective priorities to reduce stress and become better at my job (2B)	.624
I have made a conscious effort to maintain and / or share the skills, competencies or knowledge colleagues identified for me (18B)	.602

To conclude, the survey statements found for each of the six factors describing communication initiatives’ effect on behaviours have been analyzed. This has revealed the following factors: I. Personal accountability, II. Formal Communication, III. Learning Culture, IV. Involvement, V. Information Sharing, and VI. Employee Development.

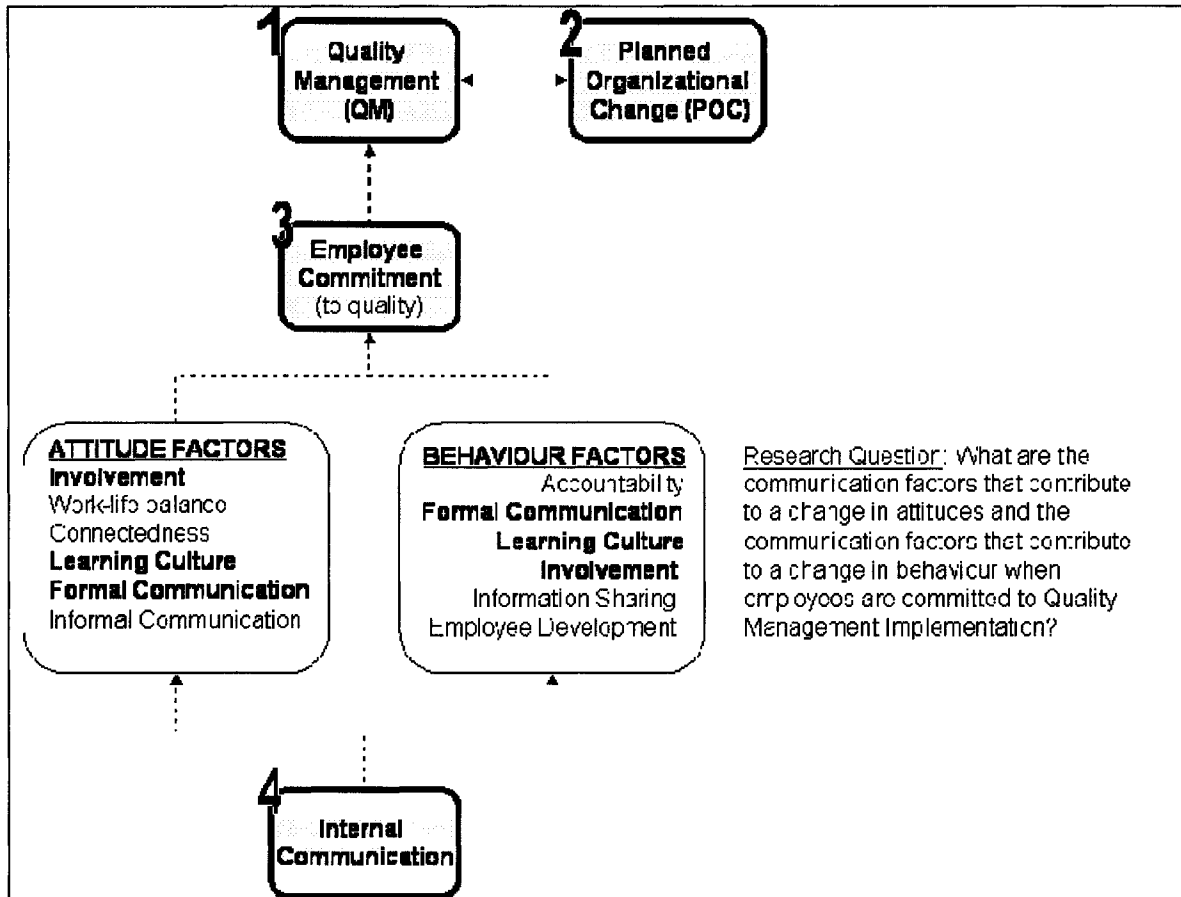
*c. Discussion of the Communication Factors Identified*

As previously explained, two separate factor analyses were conducted to determine how communication contributes to employee commitment to quality. *Figure 8* repeats the framework developed at the beginning of this thesis but includes the factors identified through this research to demonstrate how communication contributes to employee commitment to quality.

Twelve communication factors for changes in attitudes and behaviours were identified and named above. All twenty-one communication initiatives were used at least once to compose the factors identified for attitudes and for behaviours, meaning that all communication initiatives selected for inclusion in this study contributed to the definition of the factors identified above. This thesis will now review each factor and its pertinence

within QM programs followed by a discussion of the contribution of communication initiatives to the formation of three key factors.

Figure 8 – Communication Factors for Employee Commitment



*i. Communication Factors Description.* Based on an interpretation of the factors identified earlier, it is possible to suggest that organizations wishing to improve employee commitment to QM should implement communication initiatives which target changes in attitudes and behaviours. To support appropriate attitudes, management can ensure that the communication initiatives support the following factors:

1. *Involvement:* management encourages, values and recognizes employee involvement in decision-making through open communication, honest feedback

- and useful data to ensure that employees also believe in the importance of being involved.
2. *Work-life balance*: the organization makes it clear that it supports employees' personal and professional objectives; employees achieve high levels of satisfaction at work without worrying that personal objectives will be compromised as a consequence.
  3. *Connectedness*: management facilitates opportunities for employees to learn from - and learn about - peers and the organization to enable efficiency and continuous improvement.
  4. *Learning Culture*: management emphasizes the importance of taking advantage of learning and teaching opportunities through feedback, input, mentoring and coaching.
  5. *Formal Communication*: management provides information and listens to employees to make them feel that they have the tools necessary for employees to feel that they can meet their objectives.
  6. *Informal Communication* is encouraged by management to ensure that employees feel that they have access to information wherever and whenever it is required; this supports open and honest peer relations.

Organizations can also use communication to support appropriate behaviours which will enable commitment to QM. This study of a school having successfully implemented QM revealed that their communication initiatives had the following characteristics, or best practices, which could also be useful to other organizations:

1. *Accountability*: management sets expectations to guide employee initiative and personal responsibility to take action for the well-being of the organization.
2. *Formal Communication*: management uses formal communication to facilitate and encourage actions which will help attain the organization's objectives.
3. *Learning Culture*: management facilitates learning and teaching opportunities through feedback, input, mentoring and coaching.
4. *Involvement*: management encourages, values and recognizes employee involvement in decision-making through open communication, honest feedback and useful data to ensure that employees *are* involved.
5. *Information Sharing*: management provides information and provides opportunities for horizontal (peer) communication to ensure effective decision-making.
6. *Employee Development*: management plays a proactive role in supporting the acquisition of skills and competencies through formal presentations and peer recognition.

*ii. Communication Factors for Employee Commitment within QM.* The twelve communication factors that have been identified support employee commitment. As seen earlier, the attitude dimension of employee commitment was defined as “a strong belief in and acceptance of the organization's goals and values” while the behaviour dimension was represented by the “willingness to exert considerable effort on behalf of the organization” (Mowday et al., 1979). Considering the NQI's Principles of Excellence (presented in the literature review and illustrated in *Table 1*) as the goals and values of

the organization within the framework of this study, then, each communication factor related to attitudes should support the NQI’s Principles of Excellence through employees’ belief and acceptance of those Principles. At the same time, factors related to behaviours should demonstrate a willingness to uphold those Principles through appropriate actions. The communication factors identified in the previous section also support most of the 10 CSFs for QM (also introduced earlier). The link between each factor, NQI Principles of Excellence and CSFs is shown in *Table 25* and *Table 26* below with the supporting QM CSF words highlighted to demonstrate how each CSF supports the Communication Factor identified through the factor analysis.

**Table 25 - Communication Factors – Attitudes and NQI Principles of Excellence**

Communication Factors – Attitudes		NQI Principles of Excellence	QM CSFs
1.	Involvement	1. Leadership through involvement 3. Cooperation and teamwork 5. Factual approach to decision making 6. Continuous learning and people involvement	1. Management leadership, commitment and <b>involvement</b> (communication for commitment, motivation & change, policies and corporate culture) 2. Human resource management ( <b>employee relations</b> , employee <b>involvement</b> , commitment and <b>people management</b> ) 4. Fact-based management (communication of data, internal information usage, <b>improvement, measurement &amp; feedback</b> ) 6. Customer focus (customer satisfaction, customer requirements, employee <b>involvement</b> in quality tasks through cooperation with customers)
2.	Work-life balance.	4. Prevention based process management 8. Fulfill obligations to all stakeholders and society	2. Human resource management (employee <b>relations</b> , employee involvement, commitment and <b>people management</b> ) 3. <b>Education, training and learning</b> (problem-solving skills, team work, internal knowledge through communication in all directions)
3.	Connectedness	1. Leadership through involvement 3. Cooperation and teamwork	3. Education, training and learning (problem-solving skills, <b>teamwork</b> , internal knowledge through <b>communication in all directions</b> )

			5. Organizational design (the quality department, <b>teamwork structure &amp; continuous improvement system, cross-functional communication</b> )
4.	Learning Culture	2. Primary focus on stakeholder / customer and the market place 3. Cooperation and teamwork 6. Continuous learning and people involvement 7. Focus on continuous improvement and breakthrough thinking 8. Fulfill obligations to all stakeholders and society	1. Management leadership, <b>commitment and involvement</b> (communication for commitment, <b>motivation &amp; change</b> , policies and corporate culture) 3. Education, <b>training and learning</b> 4. Fact-based management (communication of data, internal information usage, <b>improvement, measurement &amp; feedback</b> ) 5. Organizational design (the quality department, <b>teamwork structure &amp; continuous improvement system, cross-functional communication</b> ) 10. Tools & <b>techniques</b> (benchmarking, Statistical Process Control, product quality, resources)
5.	Formal Communication	2. Primary focus on stakeholder / customer and the market place 4. Prevention based process management 8. Fulfill obligations to all stakeholders and society	5. <b>Organizational design</b> (the quality department, <b>teamwork structure &amp; continuous improvement system, cross-functional communication</b> ) 6. <b>Customer focus</b> (customer satisfaction, customer requirements, employee involvement in quality tasks through cooperation with customers) 8. <b>Products &amp; services design</b> (product or service design and external interface management) 9. Process management (operating <b>procedures</b> , systems, prevention & planning)
6.	Informal Communication	6. Continuous learning and people involvement 7. Focus on continuous improvement and breakthrough thinking	2. Human resource management (employee <b>relations</b> , employee involvement, commitment and people management) 3. <b>Education, training and learning</b> (problem-solving skills, team work, internal knowledge through <b>communication in all directions</b> ) 4. Fact-based management (communication of data, internal information usage, <b>improvement, measurement &amp; feedback</b> ) 5. Organizational design (the quality department, <b>teamwork structure &amp; continuous improvement system, cross-functional communication</b> )

**Table 26 - Communication Factors – Behaviours and NQI Principles of Excellence**

Communication Factors – Behaviours		NQI Principles of Excellence	QM CSFs
1	Accountability	1. Leadership through involvement 2. Primary focus on stakeholder / customer and the market place 4. Prevention based process management 5. Factual approach to decision making 6. Continuous learning and people involvement 8. Fulfill obligations to all stakeholders and society	1. Management leadership, <b>commitment</b> and involvement (communication for commitment, motivation & change, policies and corporate culture) 4. Fact-based management (communication of data, internal <b>information usage</b> , improvement, measurement & <b>feedback</b> ) 6. <b>Customer focus</b> (customer satisfaction, customer requirements, employee involvement in quality tasks through <b>cooperation</b> with customers)
2	Formal Communication	1. Leadership through involvement 3. Cooperation and teamwork 4. Prevention based process management 5. Factual approach to decision making	1. <b>Management leadership</b> , commitment and involvement ( <b>communication for commitment, motivation &amp; change</b> , policies and corporate culture) 2. Human resource management (employee relations, employee involvement, commitment and <b>people management</b> ) 4. <b>Fact-based management</b> (communication of data, internal information usage, improvement, measurement & <b>feedback</b> ) 9. Process management (operating <b>procedures</b> , systems, prevention & planning)
3	Learning Culture	6. Continuous learning and people involvement 7. Focus on continuous improvement and breakthrough thinking	3. <b>Education, training and learning</b> 4. Fact-based management (communication of data, internal information usage, <b>improvement, measurement &amp; feedback</b> ) 5. Organizational design (the quality department, teamwork structure & <b>continuous improvement</b> system, cross-functional communication) 9. Process management (operating <b>procedures</b> , systems, <b>prevention &amp; planning</b> ) 10. Tools & techniques (benchmarking, Statistical Process Control, product quality, <b>resources</b> )
4	Involvement	1. Leadership through involvement	1. Management leadership, commitment and <b>involvement</b>

		<p>2. Primary focus on stakeholder / customer and the market place</p> <p>3. Cooperation and teamwork</p> <p>6. Continuous learning and people involvement</p> <p>8. Fulfill obligations to all stakeholders and society</p>	<p>(communication for commitment, motivation &amp; change, policies and corporate culture)</p> <p>2. Human resource management (employee relations, employee <b>involvement</b>, commitment and people management)</p> <p>3. Education, training and <b>learning</b> (problem-solving skills, <b>teamwork</b>, internal knowledge through communication in all directions)</p> <p>6. <b>Customer focus</b> (customer <b>satisfaction</b>, customer requirements, employee <b>involvement</b> in quality tasks through cooperation with customers)</p>
5	Information Sharing	<p>2. Primary focus on stakeholder / customer and the market place</p> <p>3. Cooperation and teamwork</p> <p>5. Factual approach to decision making</p> <p>6. Continuous learning and people involvement</p> <p>7. Focus on continuous improvement and breakthrough thinking</p> <p>8. Fulfill obligations to all stakeholders and society</p>	<p>3. <b>Education</b>, training and learning (problem-solving <b>skills</b>, <b>teamwork</b>, internal knowledge through <b>communication in all directions</b>)</p> <p>4. Fact-based management (<b>communication of data</b>, <b>internal information usage</b>, <b>improvement</b>, measurement &amp; feedback)</p> <p>5. Organizational design (the quality department, teamwork structure &amp; continuous improvement system, <b>cross-functional communication</b>)</p> <p>6. <b>Customer focus</b> (customer satisfaction, customer requirements, employee involvement in quality tasks through cooperation with customers)</p> <p>7. <b>Supplier management</b> (supplier <b>collaboration</b> and partnerships, &amp; their management)</p>
6	Employee Development	<p>6. Continuous learning and people involvement</p> <p>7. Focus on continuous improvement and breakthrough thinking</p>	<p>2. Human resource management (<b>employee relations</b>, employee involvement, commitment and people management)</p> <p>3. Education, <b>training and learning</b> (problem-solving <b>skills</b>, teamwork, internal knowledge through communication in all directions)</p> <p>5. Organizational design (the quality department, teamwork structure &amp; <b>continuous improvement system</b>, cross-functional communication)</p>

The above tables show how each communication factor supports the NQI's Principles of Excellence and CSFs for QM. Although some CSFs for QM identified at the beginning of the thesis did not appear in the above tables, this does not mean that the attitude and behaviour factors failed to support all QM CSFs. In fact, it is not surprising to observe the absence of some CSFs. Because this case study only observed internal communication, CSFs related to Customers and Suppliers did not play a significant role. The communication factors did not appear to support QM CSF related to tools and techniques. Although the school's NQI application did not emphasize the implementation of benchmarking and statistical process control traditionally associated with manufacturing organizations, the school did employ other quality measurement tools such as employee surveys and evaluations of student success (excluded from this study because they were not considered to be employee communication).

*iii. Connectedness and Information Sharing Factors.* As mentioned previously, two factors were similar: Connectedness (attitude dimension) and Information Sharing (behaviour dimension). They both refer to similar concepts of information exchange and relationship-building; however, their approach is different since one is more closely related to affective characteristics (Connectedness) while the other is instrumental (Information Sharing). This suggests that activities which help employees feel connected and which support information sharing will serve two different – but equally important – QM objectives: changing attitudes and changing behaviours. In the case studied, the initiatives implemented for Connectedness and Information Sharing are shown in *Table 27* where each communication initiative uses the same numbering as in the previous section (detailed descriptions of each communication initiative are available in Appendix

4). Initiatives include the use of the school’s internal written communication vehicles (BEAM and the newsletter), staff meetings and feedback between employees and the administration.

**Table 27 – Communication Initiatives Contributing to the Connectedness and Information Sharing Factors**

<b>Connectedness</b>		<b>Information Sharing</b>	
<b>Attitudes</b>		<b>Behaviours</b>	
<b>7</b>	BEAM (Intranet)	<b>7</b>	BEAM (Intranet)
<b>9</b>	Learning at staff meetings	<b>13</b>	Division feedback to the Principal and Vice Principal
<b>17</b>	Recognition at staff meetings	<b>14</b>	One-on-one feedback
<b>20</b>	Monthly newsletters	<b>21</b>	Staff meetings

*iv. Key Communication Factors.* In addition to the Connectedness and Information Sharing factors, some factors identified in this thesis (highlighted in Figure 8 above) were found within both the attitude and behaviour dimensions:

- a. Learning Culture
- b. Involvement and
- c. Formal Communication.

Although the purpose of this thesis was not to identify factors which were common to both the attitude and behaviour dimension of commitment, these three factors are of particular interest for other organizations because they support the two essential dimensions of commitment. Organizations wishing to make effective use of limited resources may focus communication efforts on these three factors to maximize employee commitment to quality and target both attitudes and behaviours at the same time. The important contribution of these three factors is also of particular interest based on the earlier discussion. These three ‘key’ factors are presented below.

*(a) Learning Culture.* As reflected in the factor referring to a Learning Culture, the presence of an environment where learning is supported and encouraged is essential

for continuous improvement to take place. Continuous improvement was found to be a major component of QM programs in general. As evidence, the NQI's Principles of Excellence seen in *Table 1* (Principles 6 and 7) and the CSFs for QM presented earlier – Education, training and learning (CSF 3) and Organizational design which includes the continuous improvement system (CSF 5) – both make reference to the importance of learning or improvement. As an example for other organizations wishing to undertake a similar implementation program, *Table 28* lists the communication initiatives which contributed to the formation of this key factor at VM P.S. There, communication opportunities supporting a learning culture took place at staff meetings, during mentoring, workshops or on BEAM (the Intranet). Detailed descriptions of each initiative are available in Appendix 4.

**Table 28 - Communication Initiatives Contributing to the Learning Culture Factor**

<b>Learning Culture</b>			
<b>Attitudes</b>		<b>Behaviours</b>	
<b>3</b>	Informal communication	<b>8</b>	Professional development on BEAM (Intranet)
<b>6</b>	Involvement in planning	<b>9</b>	Learning at staff meetings
<b>9</b>	Learning at staff meetings	<b>10</b>	Mentoring
<b>10</b>	Mentoring	<b>11</b>	In School workshops
<b>11</b>	In-School workshops	<b>19</b>	Christmas cards

(b) *Involvement*. The next key factor, Involvement, plays a crucial role in the conceptualization of employee commitment to quality. The importance of involvement is evident within the NQI's Principles of Excellence since it is mentioned twice (1. Leadership & Involvement and 6. Continuous Learning & People Involvement) (*Table 1*). Involvement is also a common theme within the CSFs presented earlier for Management Leadership, Commitment and Involvement (CSF 1) as well as Human Resource Management (CSF 2) and Customer Focus which includes the involvement of employees

(CSF 6). At VM P.S., several communication initiatives contributed to this factor where employee involvement happened through sharing knowledge, providing feedback and planning activities (*Table 29*).

**Table 29 - Communication Initiatives Contributing to the Involvement Factor**

<b>Involvement Factor</b>			
<b>Attitudes</b>		<b>Behaviours</b>	
<b>6</b>	Involvement in planning	<b>3</b>	Informal communication
<b>10</b>	Mentoring	<b>10</b>	Mentoring
<b>13</b>	Division feedback to the Principal and Vice Principal	<b>20</b>	Monthly Newsletters
<b>14</b>	One-on-one feedback	<b>21</b>	Staff meetings
<b>15</b>	Surveys		
<b>16</b>	Communication of results		
<b>18</b>	What I like about each staff member		
<b>21</b>	Staff meetings		

(c) *Formal Communication*. Finally, it is interesting to see that Formal Communication was a factor for both the attitudes and behaviours dimensions of commitment while Informal Communication was found to be a factor only within the attitude dimension. The literature review of this thesis discussed the type of communication initiatives which are the most likely to contribute to employee commitment stating that although horizontal and informal communication help create social relationships, vertical and formal communication may be a better predictor of commitment. Interestingly, this assertion has been reflected in the factor analysis.

This component of the study identified both Formal and Informal Communication as contributors to the attitude dimension of communication initiatives. It can be supposed that because attitudes are composed of affective, behavioural intention and cognitive components, Informal Communication supports the affective or social needs of employees while Formal Communication supports the behavioural intention component.

On the other hand, only Formal Communication was found to be a factor for the behaviour dimension of the study which was defined as behavioural, normative and control beliefs. This supports the earlier assumption that formal communication promotes commitment because it provides employees with communication about norms and controls which will support the accomplishment of tasks through appropriate action or behaviours.

The fact that Formal Communication was found to contribute to both attitudes and behaviour dimensions highlights the important role of management in ensuring that their communication efforts support QM through their own commitment to Quality. Various communication initiatives contributed to the Formal Communication factor (*Table 30*) including processes, guidelines, surveys and information exchanges between employees and the administration.

**Table 30 – Communication Initiatives Contributing to the Formal Communication Factor**

<b>Formal Communication</b>			
<b>Attitudes</b>		<b>Behaviours</b>	
<b>4</b>	Anti-Bullying process	<b>2</b>	Personal development presentations
<b>5</b>	Students of concern	<b>12</b>	Communication guidelines
<b>12</b>	Communication guidelines	<b>15</b>	Surveys
<b>19</b>	Christmas cards	<b>16</b>	Communication of results

**5. Summary**

In summary, the analysis of the survey results has helped answer the research question which was to understand the role and characteristics of communication initiatives within a QM program. Next is a review of the findings and conclusions to be drawn from this research.

## CONCLUSION

The purpose of this research was to understand the role of communication within QM implementation and more specifically, its role in supporting employee commitment to QM. Communication initiatives were observed within a primary school which had implemented QM and benefited from highly committed employees. To conclude, the findings will be reviewed and summarized, the implications of the findings will be presented and the limitations of the research will be discussed.

### 1. Summary of Findings

Given that attitudes and behaviours are the foundation of commitment, it has been found that communication initiatives must influence both attitudes and behaviours to successfully achieve commitment to QM. The research question's purpose was to identify the factors contributing to changes in attitudes and in behaviours when employees were highly committed to the QM effort. Therefore, a survey has been conducted which confirms that all demographic groups of employees of this NQI-certified organization are highly committed to quality although some of the responses may suggest that quality is not always the most important aspect of their job. These high levels of commitment are not surprising given that QM theory identifies commitment as a CSF for QM and that this school has been recognized for its outstanding QM through a Canada Award for Excellence (CAE).

The survey indicates that, overall, employees feel that all communication initiatives included in this study contribute to a change in their attitudes and behaviours - the two dimensions forming the definition of commitment used in this thesis. Employee

Surveys, Measures to support students of concern and Staff meetings are among the most successful of those communication initiatives while Professional Development on the Intranet and Professional Development Presentations have a lesser effect.

Nevertheless, a factor analysis of the communication initiatives finds that three factors – Involvement, a Learning Culture and Formal Communication – are common factors to the attitude and behaviour dimensions of communication initiatives. This suggests that organizations should ensure that QM communication plans include, at the minimum, formalized communication channels promoting employee involvement and learning. Other useful factors to achieve employee commitment to quality are Work-life balance, Connectedness, Informal Communication, Accountability, Information Sharing and Employee Development.

## **2. Limitations**

It is important to note that some assumptions are made within this research design. First of all, it is recognized that a multiple-case study design would have improved the ability to generalize. However, limited resources did not allow for a large-scale study. The restricted number of organizations meeting the criteria for this study (a Canada Award for Excellence (CAE) and a recent PEP Certification) also reduced the availability of organizations. However, the use of a holistic single-case study was judged appropriate because the purpose of this research was to validate a model and to represent a unique case (Yin, 2003).

The model presented in the first part of this thesis excludes the notion that communication's influence on individuals can be mediated by factors not included in this

study including skills, motivation and experience with a topic (Vakratsas & Ambler, 1999). Additionally, although it has been noted that self-reported indices can be reliable (Howard, 1994), the actual behaviour employees claimed to have enacted were not directly observed by the researcher. At the same time, the involvement of the school's Principal in the interview may have slightly influenced the outcome.

It is also recognized that although based on statistical procedure, the naming and labelling of the factors identified in the factor analysis is a subjective process. A description of the communication initiatives, the variables and all factor loadings were provided in this thesis to allow others to critique and challenge this interpretation of the factors.

Finally, additional knowledge could be gained by validating the factors found in this study against findings within other organizations where different approaches to QM may be employed. Comparing attitude and behaviour factors between organizations where employees are very committed and less committed would also help validate the present findings and would provide additional insight into the nature of communication initiatives for commitment to QM.

Despite the important role of communication in creating commitment to quality, other activities such as leading by example, recognition and hiring practices which focus on promoting and acquiring skills and individuals displaying desirable attitudes and behaviours can also lead to increased employee commitment. Nevertheless, numerous soft and hard CSFs for QM have been identified in addition to communication and commitment. Therefore, organization wishing to implement a QM program must not rely

only on communication to attain desired results but can use communication targeting appropriate attitudes and behaviours to support those other CSFs.

### **3. Implications**

The results of this research demonstrate that, to successfully implement QM, organizations must be concerned with employee commitment. One way of achieving this, is through communication initiatives which target appropriate changes in attitudes and in behaviours. Although several factors were identified, three in particular stood out because they targeted both attitudes and behaviours: Learning Culture, Involvement and Formal Communication. These 'key' factors highlight the important role of management in ensuring rich and purposeful exchanges with employees to create an understanding of the organization's QM objectives. As such, vertical communication can also help promote employee interest in learning and involvement. This research demonstrates that organizations with limited resources can set the foundation for employee commitment to QM through communication plans anchored on these three factors.

Although they do not target both attitudes and behaviours at the same time, a balanced approach to the implementation of communication initiatives addressing the other communication factors identified in this study will also address many of the fundamental requirements of QM programs. This includes Work-life balance, Connectedness and Informal Communication for the attitude component of the study and Accountability, Information Sharing and Employee Development for the behaviour dimension.

Because each organization is unique, the specific communication initiatives or activities implemented to address the factors described above will differ from one organization to the next. However, the initiatives presented in this case study provide excellent examples of traditional and creative communication initiatives implemented by an organization to engage employees and attain employee commitment through attitudes and behaviours. Organizations wishing to implement a QM program or to improve employee commitment to the organization can improve chances for success by making a conscious effort to pay attention to both components of commitment. This can be achieved by tailoring each communication initiative to address specific attitudes and behaviours or through a balanced approach where communication activities provide an overall balance.

The school which participated in this study implemented several communication initiatives to which specific attitude and behaviour objectives were assigned. However, when management implemented them, changing attitudes and behaviours was not the primary or explicit purpose of those measures. Nevertheless, this could suggest that by the nature of its design, the NQI Red Leaf CEEP program encourages the implementation initiatives (including communication initiatives) which promote positive attitudes and behaviours which, as we have seen, lead to employee commitment. Given the key role played by communication in the creation of employee commitment to QM, organizations which use QM Frameworks such as the NQI CEEP program could benefit from QM Frameworks which provide more explicit communication guidelines

The NQI's CEEP is an excellent tool to guide schools in the implementation of QM and continuous improvement; through its framework, it encourages the implementation of appropriate employee attitudes and behaviours to facilitate commitment to QM.

Although, achieving a QM certification depends on effective communication, employees must believe in the organization's objectives and must be willing to put forth 'considerable' effort to reach those goals. The organization studied for this project, Vincent Massey Public School, is truly an exceptional workplace where teachers and staff are committed to QM but, more importantly, are committed to the well-being of their students. It is through positive attitudes and behaviours that communication initiatives supported employee's commitment to student learning.

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## APPENDICES

## 1. Project Approval from the University of Ottawa Ethics Committee

**Université d'Ottawa**

Service de subventions de recherche et déontologie

**University of Ottawa**

Research Grants and Ethics Services

April 3, 2006

Jenepher Lennox-Terrionx  
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Carine Lavoie  
Department of Communication  
[carinelav@hotmail.com](mailto:carinelav@hotmail.com)

**Re: The Role of Internal Communication in Creating Behavioural and Attitudinal  
Commitment to Quality (File # 02-06-23)**

Dear Professor Lennox-Terrion and Ms. Lavoie,

Thank you for your response to the REB's questions and for the modified documents. These have been approved by the Social Sciences and Humanities Research Ethics Board (SSH REB). You will find enclosed the Certification for your research project. During the course of the study, any modifications to the protocol or forms may not be initiated without prior written approval from the REB. You must also promptly notify the REB of any adverse events that may occur.

This certificate of ethical clearance is valid until April 3, 2007. Please submit an annual status report to the Protocol Officer in April 2007 to either close the file or request a renewal of ethics approval. This document can be found at:  
[http://www.rges.uottawa.ca/ethics/application\\_dwn.asp](http://www.rges.uottawa.ca/ethics/application_dwn.asp)

If you have any questions, please do not hesitate to contact me at extension 1787.  
Sincerely yours,

Catherine Paquet

Protocol Officer for Ethics in Research

For Richard Clément, Chair of the SSH REB

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**Université d'Ottawa**  
Service de subventions de recherche et déontologie

**University of Ottawa**  
Research Grants and Ethics Services

**SOCIAL SCIENCES AND HUMANITIES RESEARCH ETHICS BOARD**  
**CERTIFICATION OF ETHICAL APPROVAL**

This is to certify that the University of Ottawa Social Sciences and Humanities Research Ethics Board (REB) has examined the application for ethical approval for the research project **The Role of Internal Communication in Creating Behavioural and Attitudinal Commitment to Quality (File # 02-06-23)** submitted by Carine Lavoie and supervised by Jenepher Lennox-Terrion of the Department of Communication. The members of the REB found that the research project met appropriate ethical standards as outlined in the Tri-Council Policy Statement and in the Procedures of the University of Ottawa Research Ethics Boards, and accordingly gave the research project a Category Ia (Approval).

This certification is valid for one year from the date indicated below.

\_\_\_\_\_ April 3, 2006  
Date

Catherine Paquet  
Protocol Officer for Ethics in Research

For the Chair of the Social Sciences and Humanities REB  
Richard Clément

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## 2. Communication initiatives reported in the Red Leaf CEEP Application for the NQI -- A. Procedures and Definitions

The organization's Red Leaf Application was reviewed to identify internal communication initiatives. A coding sheet available on the next page helped determine if initiatives were, in fact, internal communication. The terms used on the coding sheet are defined below.

- i. **VM id:** Each initiative in the application was given its own id number. The letter represents the Progressive Excellence Program (PEP) NQI criteria while a number was assigned to each bullet or line of text within the application.
- ii. **Description of initiative (from Application):** Text likely to be a communication initiative was copied or paraphrased from the school's application. In some instances, the initiative was a description of a communication policy or practice. I excluded initiatives where terms did not suggest the presence of communication although communication may have been required to accomplish that task.

### Procedures

- i. **Key words:** Words suggesting the presence of influence, transaction and interaction between two parties (Adler et al., 2006; Dolphin, 2005) helped identify potential communication initiatives.
- ii. **Purpose of Flow (T, M, H, I)** represents the objective of the communication. Task (T) = information, persuasion. Maintenance (M) = survival of the organization / regulatory information. Human (H) = Integrative information, attitudes, morale. Innovative (I) = information to adapt to change (Goldhaber, 1990).
- iii. **Sender / Receiver (Internal Communication):** The Sender / Receiver are reported when mentioned in the application or if implied. Since this study focuses on Internal Communication, the Sender / Receiver must be staff. Communication to or from students are excluded because students are the school's customers as recipients of education. Parents, the community and the school Board are also excluded since they are external to the school.
- iv. **Communication Direction (H, D, U):** Horizontal (H) = communication between colleagues or individuals at the same level in the organizational chart. Downward (D) = communication from an upper echelon. Upward (U) = communication to an upper echelon.
- v. **Feedback (1, 2)** describes whether information unidirectional or bidirectional. 1 = unidirectional communication (one way) where the receiver does not respond to the sender. 2 = bidirectional communication where the receiver can also respond.
- vi. **Spoken / Written Communication (S/W)** distinguishes the type of channel used to transmit information.

**3. Communication initiatives reported in the Red Leaf CEEP Application for the NQI -- B. Reported Initiatives - VINCENT MASSEY P.S.**

The following tables list all communication initiatives identified in the school’s NQI Red Leaf CEEP Application. They are shown in the order that they appeared in the Application and, as defined on the previous page, include the criteria used to confirm that these were, in fact, communication initiatives.

**A. The school leadership team demonstrates a commitment to quality improvement and quality principles (for example, through its direct involvement in improvement initiatives), a commitment encouraged and supported by the school superintendent.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
1	A2.1	Regular staff meetings which focus on professional development	Meet	H, I	Staff	Staff	H, D, U. 2	Spoken (meeting)
2	A2.2	Regular sharing of learning from external learning opportunities	Share	H, I	Staff	Staff	H. 2	
3	A2.3	Encouragement to participate in conferences and workshops	Encourage	H, I	Principal	Staff	D 1	
4	A2.4	Regular reflective practice	Policy	H			N/A	
5	A2.5	Teachers have provided workshops for staff on ESL instruction, brain-based learning, creating and Individual Education Plan, increase physical activity at school, guided reading, computer literacy topics, etc.	Provide Workshop	I	Teachers	Staff	H 1	Spoken
9	A4.3	Carol (the principal) asked teacher to present what they had done to a meeting with the family of schools.	Ask	T, M	Principal	Teacher	D 2	Spoken
10	A5.1	Teachers are asked if they want to participate [in opportunities that come through the school or school board]	Ask	T, M, H	Principal	Teachers	D 2	
14	A9.1	Open door policy for teachers	Practice	M, H	Teachers	Principal & Vice-Principal	U, D 2	Spoken
15	A9.2	Principal and Vice-Principal are regularly available in the hallways for “standing meetings”.	Meetings	T, M, H	Teachers	Principal & Vice-Principal	U, D 2	Spoken

**B. Responsibility, accountability and leadership for improvement are shared throughout the school.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
16	B1	Bi-weekly meetings focused on student learning	Meet	T, M, I	Division leaders	Division staff	D, U 2	Spoken (meeting)
17	B2	Special Education / English as a Second Language Team meets regularly to plan for the needs of our high needs students	Meet	T, M	Special Education / English as a Second Language Team	Special Education / English as a Second Language Team	H 2	Spoken (meeting)

**C. Ideas and practices on quality improvement are shared internally and with other schools.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
20	C5	Team teaching Grade 7 teachers plan for and teach the entire group of Grade 7 students	Teach	T	Grade 7 teachers	Grade 7 teachers	H 2	Spoken
21	C6	One staff meeting was a scavenger [hunt] which saw all teachers looking for evidence of classroom practices reflecting multiple intelligences, learning styles and current brain research	Share / meet	T,M,H,I		Teachers	H, U, D 2	
22	C7	Division meetings regularly have a "bring & brag" section in which best practices are shared to Share best practices	Share	M, H, I	Division staff	Division staff	H, U, D 2	Spoken (meeting)
24	C12	Professional Development articles are regularly shared electronically	Share	M, H, I			1	Written

**D. The leadership team uses school performance results to evaluate and improve its leadership effectiveness and style (for example, through feedback from students, staff and other stakeholders).**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
25	D2	Staff satisfaction survey for evaluations	Survey	T, M, H	Staff	Management	U 1	Written
26	D5	EQAO results are shared and improvement plans are developed	Share	M, H,I			1	
27	D15	Division and staff meetings feedback is encouraged and welcome	Practice Feedback	T, M			U 1	
29	D16.2	Staff room and hallway conversations focus on professional issues		T, M	Staff	Staff	H 2	Spoken

**E. Scheduled internal assessment is conducted to determine the school’s strengths and opportunities for improvement, and the school analyzes assessment findings to help determine priorities for improvement.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
31	E1	The school improvement plan is reviewed with staff (and School Council) in September as it is our roadmap for the year	Review	T, M, I		Staff 1	U, D 1	
33	E4	Discussion of strengths and opportunities for growth for the NQI self-assessment (completed twice through review of Quality Principles)	Discuss	M			2	Spoken
34	E6	School Climate Survey		H, I			1	Written

**F. Generic skills – including thinking, problem solving, literacy, numeracy and computer skills and equity / anti-discrimination studies – are integrated throughout the curriculum.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
37	F9	Math and Language Lead Teachers in each division share their knowledge	Share	T, M, I	Math and language lead teachers	Staff	H 2	
38	F14	Anti-racism and ethno-cultural representative regularly posts curriculum ideas on BEAM (our Board electronic communications system)	Post	T, M, H	Anti-racism and ethno-cultural representative		1	Written (Board electronic communications system)
40	F19	Morning music to celebrate cultures around the world		H		Teachers / students	1	Spoken
41	F21	Multicultural Liaison Officer helps with translation and interpretation of cultural differences	Translate / Interpret	T, H	Multicultural Liaison Officer		2	

**G. Teachers use variety of instructional strategies.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
		(no communication activities reported in this section)						

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**H. The school measures student satisfaction to gain information for improvement.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
		(no communication activities reported in this section)						

**I. The school has a focus on staff wellness and well-being and involves its staff in addressing healthy lifestyles and healthy workplace issues (for example, physical environment, health practices, social environment of the workplace, and application of needs assessment to establish healthy workplace services and programs to meet the diverse need of staff).**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
43	I1	School climate survey – results shared and acted upon	Share	H			U 1	Written
44	I2	Staff Satisfaction Survey for recognition and resources to do job identified as needing attention		T, M, H	Staff	Administration	U 1	Written
47	I6	Guidance counselor is a sounding board for many staff	Sounding board	H	Staff	Guidance counselor	2	Spoken
51	I19	Regular Friday Funnies on BEAM posted by Vice Principal	Posted	H	Vice Principal	Staff	D 1	Written
52	I20	Principal prepares and presents PowerPoint presentations of staff at school or at staff parties with humorous comments or speaking bubbles to create a feeling of family	Present	H	Principal	Staff	D 1	Spoken
53	I21	Teacher I Wrote This Song For You music for PowerPoint of teachers at work with their students to highlight importance of what they do		M, H			1	Spoken
57	I25	Principal-led PowerPoint on resiliency and the importance of maintaining balance in life, workshops on understanding personal learning style, regular celebration of successes in-school professional development focuses on staff wellness issues	Practice - PowerPoint	T, H, I	Principal		1	Written – Spoken

**J. Staff training and development needs are determined (with staff involvement) in order to meet the goals in the improvement plan and to keep current with educational service and individual needs, and the school evaluates the effectiveness of all training and development programs.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
58	J1.1	Scheduled professional development meetings held every two weeks to provide access to new research and instructional strategies and focus on professional discourse on school development and student achievement	Meet	M, H, I			2	Spoken
59	J1.2	In-school workshops to provide access to new research and instructional strategies and focus on professional discourse on school development and student achievement		M, H, I			1	Spoken

60	J1.3	Mentor teachers to provide access to new research and instructional strategies and focus on professional discourse on school development and student achievement		M, H, I			2	
61	J1.4	Focus on professional development at Division meetings to provide access to new research and instructional strategies and focus on professional discourse on school development and student achievement		M, H, I				Spoken
62	J2	A survey was done to determine areas of interest for professional development to determine areas of interest for professional development	Survey	M, H, I			U 1	Written
63	J3.1	Staff are asked what PD they want in the area of computer literacy.	Ask	M, H, I	Staff		U 1	
64	J3.1	Our Educational Technology Integrator then delivers workshops as requested	Deliver Workshop	M, H, I	Educational Technology Integrator		1	Spoken
66	J6.1	Collegial interactions to facilitate professional learning	Interact	H, I	Staff	Staff	H, D, U 2	
67	J6.2	Informal discussion with colleagues	Discuss	H	Colleagues	Colleagues	H 2	Spoken
68	J6.3	Collaborative brainstorming sessions	Collaborate	T, M, H			2	Spoken
69	J6.4	Resource sharing consultation with mentors or other more experienced teachers	Counsel	M, I	Mentors or other more experienced teachers	Staff	D, U 2	Spoken
70	J6.5	Networks with subject-area peers	Networks	T, M, H, I	Subject-area peers	Subject-area peers	H 2	
71	J6.6	Feedback from administrators	Feedback	T, M, H	Administrators		U 1	
72	J6.7	Professional knowledge offered at bi-weekly staff meetings and monthly division meetings	Knowledge offered	M, H, I			H, D, U	Spoken
73	J7	Teachers prepare and discuss with the Principal or Vice Principal their Annual learning plan	Discuss	H, I	Teachers	Principal or Vice Principal	U, D 2	Spoken
74	J8.1	Informal classroom observations and discussions focused on follow-up of professional development experience	Discuss	M, H, I			U, D 2	Spoken
75	J8.2	If staff attends an external workshop, they present either to the full staff meeting or at their division meeting	Present	M, H, I	Staff	Staff	H, U, D 1	Spoken
76	J9.1	Staff meetings are held bi-weekly, led by the principal to focus on planning for improvement, sharing information across Divisions in discussion groups, discussing big questions, etc.	Meet	T, M, H, I	Principal	Staff	H, U, D 2	Spoken
77	J9.2	Business issues are usually dealt with through electronic communication		T			H, U, D	Written
78	J10	Division meetings are held on alternate weeks to deal with issues relevant to the division	Meet	T, M	Division leaders	Division staff	H, U, D 2	Spoken

**K. The school measures staff satisfaction, and links feedback to future school improvement opportunities.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
79	K1	Staff satisfaction survey has been done		T, M, I	Staff		U 1	Written
80	K2	Recognition is given individually and at staff meetings	Recognize	H		Staff	1	Spoken
82	K6.1	Staff meetings focus on Big Questions which look at ways we can make our school even better	Practice	T, M, I			N/A 2	Spoken
83	K6.2	Feedback is gathered through a variety of brainstorming activities	Feedback	M, H	Staff	Administrative team	U 1	Spoken
84	K6.3	Responses (to brainstorming) are recorded and given to administrative team	Respond	M, H	Staff	Administrative team	U 1	Written
85	K7.1	Staff provides feedback one on one through the open door policy	Feedback	M, H	Staff		U	Policy / practice (open-door)
86	K7.2	Administration supports the views that, if you have something to say, say it openly to the person concerned. The focus is on solving problems or issues, not on personal issues	Say	M, H			H, U, D 2	Policy / practice
87	K8	One to one feedback is sought in the annual learning plan discussion. The principal determines how she or other staff members can support the accomplishment of the individual plans	Feedback / Discuss	M, H, I	Principal	Staff members	U 1	Spoken
88	K9	Teacher self-evaluation which is shared with the Principal or Vice Principal; it includes written feedback and two comprehensive summative reports throughout the year. This provides focus for the evaluation process	Share, Feedback	M, H, I	Teacher	Principal or Vice Principal	U 1	Written
89	K10	Division leaders regularly provide feedback from their divisions to the Principal and Vice-principal	Feedback	T, M	Division Leaders (divisions)	Principal and Vice Principal	U 1	
90	K11	In the Brock university Study, staff made recommendations	Recommend	M	Staff		U 1	

**L. The school identifies the contribution of its staff, and links recognition to the achievement of improvement objectives.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
91	L1	Staff meetings, newsletters, BEAM, special events. (identifies contributions and links recognition to improvement objectives)		T, M, H				Spoken - Written

92	L2 / L11	Staff complete an exercise in which they identify something they like about each staff member. The principal compiles the answers to create a certificate or card followed by at least 20 different positive statements. Gives teachers the most meaningful feedback from their peers		H, I	Staff	Staff (via principal)	H 2	Written
96	L7	Recognition of accomplishment of objectives is acknowledged through providing financial support	Recognize / acknowledge	H			1	
97	L8	Certificates of recognitions are linked to improvement objectives (awards)	Recognize	H				Written
98	L9	Principal and Vice Principal Christmas cards say thank you for something specifically related to student success	Say	H			D 1	Written
99	L10	Contributions are recognized through increasing empowerment to try new things	Recognize	H				

**M. Staff (and other stakeholders when appropriate) are involved in process improvement teams at the school.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
101	M9	All staff know that if you identify a problem, you should think of a few possible solutions prior to putting it on the table. There is no “dumping” of problems allowed	Table / Practice	H			N/A	
102	M10	Special Education / ESL teams have suggested several process improvements in how we provide service to our special needs students	Suggest	T, M, I	Special Education / ESL teams		1	

**N. Process improvements are implemented and monitored, and all changes are documented to ensure consistency in service delivery provided.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
103	N2	Anti-bullying process is documented		T			1	Written
104	N4	Online behaviour tracking system (I-Notice, to be replaced with the OCDSB Trillium system). This allows people to enter information which can be viewed by other dealing with a student.	View	T, M	Staff	“Other dealing with a student”	H 1	Written
105	N5.1	Communication processes via BEAM must be timely, check twice a day, remember that it is not confidential	Practice	T, M			N/A	Written
106	N5.2	Communicate facts only, emotional issues must be dealt face-to-face.	Practice	H			N/A	Spoken
107	N5.3	Phone calls must be returned within 24 hours	Practice	T, M, H			N/A	(Policy)
108	N6	Healthy snacks encouraged	Encourage	H		?		
109	N7	Bring and Brag: The sharing of professional development learning has been	Share,	T, H, I				Spoken

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		formalized as a regular agenda item at Division meetings.	Learn					
110	N8.1	Intermediate divisional meetings discuss students of concern as identified through analysis of Log results	Discuss	T				Spoken
111	N8.2	Individualized student action plans & contracts are discussed.	Discuss	T			2	Spoken
114	N10	Shared understanding of how to grade ESL and special education students	Share, Understand	T, M				
115	N12	All teachers are aware of the importance of differentiating (individualizing) instruction and of the expectation that they do so.	Aware	T, M				
116	N13	Staff Handbook define processes		T, M		Staff	D 1	Written
117	N14	Teachers participate in a true / false test to ensure their understanding of key policy and procedures	Understand	T, M			1	Written

**O. Key processes are analyzed to determine opportunities for continuous improvement through incremental refinement and / or fundamental redesign, including the potential for reallocation of resources and service delivery.**

#	VM id	Description of initiative (from Application)	Key Words	Purpose of Flow	Sender / Receiver Internal Communication		Comm. Direction / Feedback	Spoken / Written Comm.
118	O1.1	Multi-disciplinary team meeting process .to discuss the needs of “at risk” students	Discuss / policy	T, M	Homeroom teachers, special ed. teachers, Educational Assistants, ESL teachers, psychologist, social worker, guidance counsellor, etc.	Homeroom teachers, special ed. teachers, Educational Assistants, ESL teachers, psychologist, social worker, guidance counsellor, etc.	2	Spoken
121	O2.1	Staff have input to the organization of the school based on student numbers and staff allocation provided by Board;	Input	T, H	Staff		U 1	Spoken
122	O2.2	Staff are asked for their teaching preferences for input to the organization	Ask	T, H		Staff	D 1	
123	O3	Annual workshop done on Health and Safety responsibilities put ongoing focus for improvement suggestions	Suggest	T, M, H			U / D 1	Spoken
124	O4	Communication: Monthly Newsletters, personal logs, school web-site, guidelines for proper BEAM communications	Practice	T, M, H			N/A	Written

4. Communication initiatives reported in the Red Leaf CEEP Application for the NQI -- C. Communication Initiatives grouped (26 selected, out of 51)

In this table, communication initiatives from the school's NQI Red Leaf CEEP Application were grouped when they were similar to help select the initiatives to be included in the employee questionnaire.

Survey #	#	VM id	Communication Initiative Description
	1	F19	Morning Music
1	2	I19 I20 I21	<b>Humour:</b> Regular Friday Funnies posted on BEAM by VP; Presentations with humorous comments; Teacher I Wrote this Song For You PPT
2	3	I25	<b>Personal Development Presentation</b> on importance of maintaining balance, understanding personal learning style, celebrate successes
	4	N6	Healthy snacks encouraged
3	5	D16.2 J6.1 J6.2	<b>Informal Communication</b> <ul style="list-style-type: none"> <li>• Staff room and hallway conversations focus on professional issues</li> <li>• Collegial interactions facilitate professional learning</li> <li>• Informal discussion with colleagues</li> </ul>
	6	F21	Multicultural Liaison Officer helps with translation & interpretation of cultural differences
4	7	N2	<b>Anti-bullying process</b> is documented
5	8	N8.1 N8.2	<b>Students of Concern:</b> Discuss students of concern as identified through analysis of log results; Individualized student action plans & contracts are discussed

Survey #	#	VM id	Communication Initiative Description
13	24	K10	<b>Division feedback</b> (from divisions) to P & VP
	25	K2.6	Feedback gathered through brainstorming activities
14	26	K7.1 K8	<b>One-on-one Feedback</b> given one-on-one through... - open door policy; - annual learning plan discussion
	28	A.9.1 A.9.2	<b>Open door policy</b> / P & VP always available
	30	J9.2 K6.1 N5.1 N5.3	<b>Policy re: communication channel</b> <ul style="list-style-type: none"> <li>• Staff meetings focus on Big Questions</li> <li>• Communication processes via BEAM and its policies (timely, check twice daily, not confidential)</li> <li>• Business issues are dealt with through electronic communication</li> <li>• Phone calls must be returned within 24 hours</li> </ul>
15	31	D2 I2 K1 E6 I1 J2 J3.1	<b>Surveys</b> <ul style="list-style-type: none"> <li>• Staff satisfaction survey</li> <li>• School Climate Survey</li> <li>• Recognize resources</li> <li>• Survey to determine areas of interest for Professional Development</li> <li>• ...to determine needs for computer literacy</li> </ul>
16	32	D5 I1	<b>Communication of Results</b> <ul style="list-style-type: none"> <li>• EQAO results are shared</li> <li>• School Climate Survey – results shared</li> </ul>
	33	E4 K6.1 K6.3 M10	Suggestions for improvement <ul style="list-style-type: none"> <li>• Discuss strengths and opportunities for growth</li> <li>• Staff meetings look for ways to make school better</li> <li>• Responses to brainstorming are recorded and given to</li> </ul>

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	9	N10 N12	<b>Knowledge:</b> <ul style="list-style-type: none"> <li>Shared understanding of how to grade ESL &amp; special ed students</li> <li>All teachers are aware of the importance of differentiating instruction and of the expectation that they do so.</li> </ul>
	10	A5.1	Teachers asked if they want to participate in opportunities
	11	L10	Increasing empowerment to try new things (to recognize contributions)
6	12	E1 02.1 02.2	<b>Involvement in planning:</b> <ul style="list-style-type: none"> <li>Plans are reviewed with staff</li> <li>Staff have input to the organization of the school based on student numbers and staff allocation provided by board.</li> <li>Staff are asked for their teaching preferences.</li> </ul>
7	43	L1 N5.1 O4	<b>BEAM (Intranet)</b> <ul style="list-style-type: none"> <li>(identifies contributions and links recognition to improvement objectives)</li> <li>Communication processes via BEAM must be timely, check twice a day, remember that it is not confidential</li> </ul>
8	15	C12 F14	<b>Professional Development on BEAM</b> <ul style="list-style-type: none"> <li>Professional Development articles shared electronically</li> <li>Anti-racism &amp; ethno cultural rep posts curriculum ideas on BEAM</li> </ul>
	13	J6.3 K6.2	Collaborative brainstorming sessions
9	14	A.2.1 J1.4 J1.1 J6.7 A.2.2 A.2.5 A4.3 F9 J8.2 C7	<b>Learning at staff meetings</b> <ul style="list-style-type: none"> <li>Focus on professional development (in meetings) / (at division meetings with Bring &amp; Brag)</li> <li>Scheduled P. Dev meetings every 2 weeks</li> <li>Professional knowledge offered at bi-weekly meetings and monthly division meetings</li> <li>Regular sharing of learning from external learning opportunities</li> <li>Teachers teach each other</li> </ul>

			administrative team <ul style="list-style-type: none"> <li>Special Ed / ESL have suggested improvements</li> </ul>
	34	L8	Certificates of recognition are linked to improvement objectives
	35	N14	Teachers participate in true / false test to ensure understanding of policies
	36	K11	Recommendations through the Brock University Study
17	37	K2 L3	<b>Recognition at Staff Meetings</b> <ul style="list-style-type: none"> <li>Recognition given individually and at staff meetings</li> <li>Staff contributions are highlighted at meetings</li> </ul>
	38	L4 L7	<b>Financial Support</b> <ul style="list-style-type: none"> <li>Thank each teacher by giving \$50 for supplies</li> <li>Recognition of accomplishment of objectives is acknowledged through providing financial support</li> </ul>
18	39	L2 L11	"What I like about each staff member". Staff identify something they like about each staff member
19	40	L9	P & VP <b>Christmas cards</b> say thank you for something specifically related to student success
	41	K7.1	Open door policy (for feedback)

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		N7	
<b>10</b>	16	C5 I6 J1.3 J6.4 J6.5	<b>Mentoring</b> <ul style="list-style-type: none"> <li>• Mentor teachers</li> <li>• Consultation with mentors or other more experienced teachers</li> </ul> <p>c. Networks with subject-area peers d. Team teaching e. Guidance Counsellor is sounding board</p>
<b>11</b>	17	J1.2 J3.1 03	<b>In-school workshops</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Workshop by Educational Technology Integrator</li> <li><input type="checkbox"/> Workshop on H &amp; S responsibilities</li> </ul>
<b>12</b>	29	K7.2 M9 N 5.2	<b>Communication guidelines</b> <ul style="list-style-type: none"> <li>• If you have something to say it, say it openly</li> <li>• Think of solutions before putting a problem on the table</li> <li>• Communicate facts only; emotional issues must be dealt face to face.</li> </ul>
	18	J7 K8	Teachers prepare and discuss their annual learning plan
	19	A2.3	Encouragement to participate in conferences
	20	C6	Scavenger Hunt
	21	J8.1	Classroom observations and discussions focused on follow-up of professional development experience
	22	D15	Division and staff meetings feedback is encouraged & welcome
	23	J6.6	Feedback from administrators

<b>20</b>	42	L1 O4	Monthly Newsletters
	44	L1	Special events
	45	N4	<b>Online behaviour tracking system</b>
	46	N7	<b>Bring &amp; Brag</b>
	47	N8.1	<b>Student Log</b>
	48	O4	<b>Personal logs</b>
	49	N13	Staff handbook (defines processes)
	50	O4	School web site
<b>21</b>	51	A.2.1 B1 B2 J9.1 J1.1 J10 L1 O1.1	<b>Staff meetings</b> <ul style="list-style-type: none"> <li>• Regular bi-weekly meetings led by principal</li> <li>• Scheduled P. Dev meetings every 2 weeks (on alternate weeks)</li> <li>• Multidisciplinary team meetings process</li> <li>• Special Ed / ESL team meets regularly</li> </ul>

## 5. Quality Principles

**Principles for Excellence**  
**National Quality Institute**  
 (National Quality Institute, 2000a)

The Principles behind the Canadian Excellence in Education Program come from extensive NQI experience developing public sector criteria covering excellence through quality.

### **Co-operation, teamwork and partnering**

Effective relationships include representation, and foster active participation from diverse student, staff, parent/caregiver and community groups. Co-operation among individuals within the school and the broader education community is a cornerstone for the development of win-win relationships that lead to achieving or exceeding goals.

### **Leadership through involvement and by example**

Developing a quality approach often involves a transformation in thinking. This can only be achieved by the active involvement of school leadership in facilitating, reinforcing and leading the way for short-and long-term beneficial change in the school's learning and work environment.

### **Primary focus on stakeholders**

The primary aim of the school must be to increase student achievement and to understand and strive to meet the needs of students, parents/caregivers, staff and the community. Criteria for quality improvement are based on values that foster mutual respect among people who work together. Communication and personal development are directly related to these values.

### **Contribution of every individual**

Everyone in the school must have the opportunity to develop her or his potential to make positive contributions to the pursuit of excellence. Any individual and/or systemic inequities or barriers that prevent individuals from full participation must be identified and removed.

### **Process orientation**

A school is made up of a network of interdependent value-adding processes, and improvement is achieved through changing these processes to improve the total system. Education practices that embrace equity offer the best long-term strategies to achieve an inclusive learning and working environment.

### **Continuous improvement of methods and outcomes**

No matter how much improvement has been accomplished, there are always practical ways of doing even better to meet and /or exceed the objectives and goals of the schools, such as providing extended opportunities and improved programs and services.

### **Factual approach to decision-making**

Decisions are made based on an organized body of data and an understanding of cause-and-effect mechanisms, not simply on instinct, authority or anecdotal information.

## 6. Employee Survey

### Communication and Quality

#### 1. Introduction

**PURPOSE OF THE STUDY:** This survey is conducted as part of a research study to understand the characteristics of communication initiatives within quality programs.

**BENEFITS:** Participation in this study will help your organization gain insight into your communication practices and employees' commitment to quality. This study will also profile your organization as a leader of excellence within your area of service. The research will provide insight to other organizations who wish to increase commitment to quality through communication concerned with changing employees' attitudes and behaviours.

**CONFIDENTIALITY AND ANONYMITY:** The information you share will be used only for the completion of the research. If a demographic group has less than five individuals, information for that group will not be released in the thesis, in publications or to your organization; only aggregate data will be released. For example, if there are only four individuals in the "20-29 year old" category, we would not release data about the level of commitment for that age group; we would only include that information in the results for the entire school.

**CONSERVATION OF DATA:** Your responses will be kept in a secure manner and will only be accessed by the researcher and her supervisor. Your responses to this online survey are password-protected. Raw data will not be shared with your organization. Related information will be stored in the supervisor's office for five years after the time of publication, after which it will be destroyed.

**VOLUNTARY PARTICIPATION:** You are under no obligation to participate and if you choose to participate, you can refuse to answer any questions, without suffering any negative consequences. Incomplete surveys will not be included in this study.

**INFORMATION:** If you have any questions about the study, you may contact the researcher or her supervisor.

**RESEARCHER:**

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If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, (613) 562-5841 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca).

**Communication and Quality**

**2. Commitment to Quality**

On a scale from 1 to 5 where 1 = "not at all" and 5 = "all the time", rate the level to which you agree or disagree with the following statements. You may select "N/A" if this does not apply to you, or if you do not wish to answer.

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A / Don't know
A major source of satisfaction from my job comes from doing quality work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am continually taking action to improve the quality of my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important to me that my school continues to put an emphasis on quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It pleases me to know that my own work has made a contribution to the quality of my school's education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A / Don't know
I do not mind spending more time on a task in order to increase its quality, even if I get no credit for it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even if my work was never checked, I would continue to treat quality as being important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am prepared to put in extra effort to meet quality goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my job, quality is the most important target to achieve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A / Don't know
I feel that quality is the most important aspect of my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Each individual has an important part to play in increasing the quality of my school's education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take personal responsibility for the quality of my own work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I share a responsibility for the quality of my school's education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Communication and Quality**

**3. Communication Initiatives (1 of 4)**

On a scale from 1 to 5 where 1 = "not at all" and 5 = "all the time", rate the level to which you agree or disagree with the following statements. You may select "N/A" if this does not apply to you, or if you do not wish to answer the question.

**Humour**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I read the "Friday Funnies" posted on BEAM and I have attended presentations with humorous content (such as "party" power points).	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Humour within the school helps me find a sense of balance for what is important for me, for staff, students and parents.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use humour to make this school a better place because the administration encourages its use.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Personal Development Presentations**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have attended presentations about the importance of maintaining balance and understanding personal learning styles.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thanks to personal development presentations, I feel like I can do excellent work while respecting my personal limits.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Following personal development presentations, I have set effective priorities to reduce stress and become better at my job.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Informal Communication**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I discuss professional issues with colleagues through staff room and hallway conversations; I am also aware of the "Open-door" policy.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a better team member because I have the ability to discuss professional issues and provide input at any time.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have used staff room discussions, hallway conversations and / or the open-door policy to discuss professional issues and resolve them as they arise.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Anti-Bullying Process**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am familiar with the anti-bullying process and have all the necessary materials.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that the anti-bullying process fosters mutual respect and equity to create an optimum learning environment.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I implement the anti-bullying process consistently in every situation for the best interest of students.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Students of Concern**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am aware of the Intermediate Division's student log, student action plan and student contract process.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I can improve student performance through discussions to devise plans and contracts that support the "Refuse to Lose" motto.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I participate (or would participate) in discussions surrounding students of concern to support their achievements.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Involvement in Planning**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am aware of the administration's effort to review plans with staff and receive their input (for example, teaching preferences and the organization of the school based on student numbers and staff allocation).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I feel that my input allows the school to take a factual approach to decision-making and involve every stakeholder.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
As a result of my involvement in planning, I take action or adopt measures to meet the objectives of the school's improvement plan.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Communication and Quality**

**4. Communication Initiatives (2 of 4)**

On a scale from 1 to 5 where 1 = "not at all" and 5 = "all the time", rate the level to which you agree or disagree with the following statements. You may select "N/A" if this does not apply to you, or if you do not wish to answer the question.

**BEAM**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I know how to use BEAM.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
BEAM deals with routine issues, allowing us to discuss "big questions" in meetings more efficiently.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
BEAM is the first place I look to find information about operational / routine issues so that I can be more effective at my job.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Professional Development on BEAM**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have read professional development articles on such issues as Balanced Literacy and Brain Research on BEAM.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Professional development articles posted on BEAM help me improve processes and implement continuous improvement.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I have implemented techniques or ideas presented on BEAM (such as Brain Research Techniques) to improve my work performance.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Learning at Staff Meetings**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have participated in professional development offered at staff and division meetings (for example, Bring & Brag where teachers teach each other and share knowledge from external learning opportunities).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Peer coaching, support and learning help me implement change for continuous improvement.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I have (or would) implement a new practice after learning from colleagues.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Mentoring**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I know which staff member can provide me with advice or guidance.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
The support of mentoring helps new employees maintain a career in education.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I have consulted a more experience teacher, guidance counsellor or a subject-area peer to improve my performance.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**In School Workshops**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have attended in-school workshops (such as multiple intelligences, learning styles, technology, balanced literacy and health & safety).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Following a workshop, I feel a responsibility to implement what I learned to improve my performance.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I make a conscious effort to implement something that I learned in a workshop.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Communication and Quality**

**5. Communication Initiatives (3 of 4)**

On a scale from 1 to 5 where 1 = "not at all" and 5 = "all the time", rate the level to which you agree or disagree with the following statements. You may select "N/A" if this does not apply to you, or if you do not wish to answer the question.

**Communication Guidelines**

**(Phone calls must be returned within 24 hours; staff meetings focus on "Big Questions"; use BEAM for business issues; check BEAM twice daily; "if you have something to say, say it openly"; "think of solutions before putting a problem on the table"; "communicate facts only on BEAM - deal with emotional issues face to face").**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am aware of the school's communication guidelines (see above for list).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I feel that communication guidelines improve the efficiency of this school.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I make an effort to constantly use the communication guidelines.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Division Feedback to the Principal and Vice Principal**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am aware of the feedback process from Division Leaders to the Principal and Vice Principal.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Factual decision-making is based on information sharing with the Principal and / or Vice Principal.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I share information with my Division Leader, the Principal and / or Vice Principal so that they are informed of important matters.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**One-on-One Feedback**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am aware of the one-on-one feedback process which includes the annual learning plan discussion, the open-door policy and the Teacher Performance Appraisal System.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I feel that the Principal and Vice Principal value my skills and competencies as a professional through open and honest feedback.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I have taken (or would take) advantage of opportunities to provide and receive one-on-one feedback to continuously improve.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Surveys**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I participate in school surveys (such as the staff satisfaction survey and the school climate survey).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
The survey feedback I provide is valuable because it provides important data to improve school processes and systems.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I participate in surveys and complete them with care and honesty.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Communication of Results**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
Results of surveys and research (such as Staff Satisfaction Survey and School Climate Survey results) have been communicated to me.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Knowledge and data allow me to be involved in factual decision-making.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I implemented change in support of the school's objectives as a result of survey / research information being communicated.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Communication and Quality**

**6. Communication Initiatives (4 of 4)**

On a scale from 1 to 5 where 1 = "not at all" and 5 = "all the time", rate the level to which you agree or disagree with the following statements. You may select "N/A" if this does not apply to you, or if you do not wish to answer the question.

**Recognition at Staff Meetings**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have witnessed the recognition of individuals and staff contributions at meetings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning about a colleague's success inspires me to surpass myself for the benefit of the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have recognized a colleague during a staff meeting or would immediately do so as appropriate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**What I Like About Each Staff Member**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have participated in the "What I Like About Each Staff Member" exercise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This exercise helps me value the strengths of my colleagues and helps me feel good about my contributions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have made a conscious effort to maintain and / or share the skills, competencies or knowledge colleagues identified for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Christmas Cards**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I have received a Christmas card from the Principal or Vice Principal thanking me for something specifically related to student success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employee recognition through the Christmas cards supports our focus on student success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have made an effort to maintain the action or competency mentioned in my Christmas card.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Monthly Newsletters**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I am familiar with the Monthly Newsletter.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I feel that the newsletter helps me stay connected to important issues.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
When I read the newsletter, I make note of issues for me to follow-up on as necessary (inform class, note date in agenda, etc.).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Staff Meetings**

	1 Not at all	2 Some of the time	3 Neither	4 Most of the time	5 All the time	N/A
I regularly attend staff meetings (for example, monthly meetings led by the Principal, multidisciplinary team meetings, committees, division meetings and Special Education / ESL teams).	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Face-to-face meetings promote staff involvement, co-operation and teamwork necessary to support effective decision-making.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
I give my full contribution and participation at meetings to ensure my active involvement in decision-making.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Communication and Quality**

**7. Personal Information**

Please remember that information will not be released in the thesis, in publications or to your organization if the sample size for that demographic group is less than five individuals.

None of the questions are mandatory.

**Age**

Under 20 years old	20 – 29	30 – 39	40 – 49	50 – 59	60 and up
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Gender**

Female	Male
<input type="radio"/>	<input type="radio"/>

**Type of work**

Teacher	Educational Assistant	Office Staff	Custodial Staff	Other
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Number of years working in this school**

1 or less	2 – 4 years	5 – 9 years	10 – 14 years	15 – 19 years	20 or more
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Number of years working in your profession (this includes time worked in this school and any other location doing similar work)**

1 or less	2 – 4 years	5 – 9 years	10 – 14 years	15 – 19 years	20 or more
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Communication and Quality**

**8. Survey Completed**

Thank you for completing the Vincent Massey P.S. "Communication and Quality" survey.

Your time is much appreciated.

**7. Invitation to complete the Employee Survey Online Questionnaire Recruitment Text (e-mail)**

We are currently undertaking a study to understand the characteristics of communication initiatives and their ability to create commitment to quality.

We request your help to complete a survey evaluating communication initiatives reported in your organization's NQI application.

This survey is open to all employees of Vincent Massey Public School. Your responses are confidential and anonymous. The survey should take approximately 20 minutes to complete. Please complete before March 31<sup>st</sup> 2006.

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If you have any questions about the study, you may contact the researcher or her supervisor.

<p><i>Researcher:</i>                  Carine Lavoie                  Student in Communication – Master of Arts                  Communication Department, Faculty of Arts                  (613) 237-9158;  <a href="mailto:carinelav@hotmail.com">carinelav@hotmail.com</a></p>	<p><i>Supervisor :</i>                  Jenepher Lennox-Terrion, Ph.D.                  Professor                  Communication Department, Faculty of Arts                  (613) 562-5800, ext. 2517  <a href="mailto:jlennox@uottawa.ca">jlennox@uottawa.ca</a></p>
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If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, (613) 562-5841 or [ethics@uottawa.ca](mailto:ethics@uottawa.ca).

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**<Click here> to begin**

**7. Invitation to complete Employee Survey: Questionnaire Recruitment Text****Communication and Quality  
Vincent Massey Employee Survey**

I would like to thank all Vincent Massey employees who have already completed the online "Communication and Quality" survey.

Although the online portion of the survey is now closed, we would like to give an opportunity to any staff members ***who did not have a chance to complete the online survey*** to participate in this study.

If you have not already participated and would like to do so, please complete the attached questionnaire. Completed surveys should be placed and sealed in the attached envelope to ensure your confidentiality.

You may leave your completed survey in the office to the attention of **Carol Hunter**.

Completed surveys will be collected on **Friday April 28 2006**.

Thank you again for your support and participation!

Carine Lavoie