



uOttawa

l'Université canadienne
Canada's university

FACULTÉ DES ÉTUDES SUPÉRIEURES
ET POSTDOCTORALES



FACULTY OF GRADUATE AND
POSTDOCTORAL STUDIES

Marjorie Hinds

AUTEUR DE LA THÈSE / AUTHOR OF THESIS

Ph.D. (Education)

GRADE / DEGREE

Faculty of Education

FACULTÉ, ÉCOLE, DÉPARTEMENT / FACULTY, SCHOOL, DEPARTMENT

A Case Study: Teacher Professional Development and Its Impact on the Improvement of Practice in
One Ontario Secondary School

TITRE DE LA THÈSE / TITLE OF THESIS

Marie-Josée Berger

DIRECTEUR (DIRECTRICE) DE LA THÈSE / THESIS SUPERVISOR

CO-DIRECTEUR (CO-DIRECTRICE) DE LA THÈSE / THESIS CO-SUPERVISOR

EXAMINATEURS (EXAMINATRICES) DE LA THÈSE / THESIS EXAMINERS

John A. Ross

Martin Barlosky

Sharon Cook

Christine Surtamm

Gary W. Slater

Le Doyen de la Faculté des études supérieures et postdoctorales / Dean of the Faculty of Graduate and Postdoctoral Studies

A Case Study: Teacher Professional Development and Its Impact on the Improvement of
Practice in One Ontario Secondary School

by

Marjorie J. Hinds

A thesis submitted to the School of Graduate and Postdoctoral Studies
of the University of Ottawa in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Education

© Marjorie J. Hinds, Ottawa, Canada, 2007



Library and
Archives Canada

Bibliothèque et
Archives Canada

Published Heritage
Branch

Direction du
Patrimoine de l'édition

395 Wellington Street
Ottawa ON K1A 0N4
Canada

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence
ISBN: 978-0-494-49356-4
Our file Notre référence
ISBN: 978-0-494-49356-4

NOTICE:

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

AVIS:

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

■ ■ ■
Canada

ACKNOWLEDGEMENTS

“I can do all things through Him who strengthens me.”

-Philippians 4:13

First, I want to thank the teachers and administrators for accepting the challenge to be part of this research project. The time and effort the participants devoted to being interviewed, reading transcripts and validating materials demonstrated their commitment to making a difference in their profession. A thank you is extended also to the school board for its co-operation and interest in this research.

I wish to express my gratitude to Dr. Marie-Josée Berger, my thesis advisor, for her leadership role in guiding and directing the thesis process and for her patient mentoring during the entire process. Her pursuit of excellence has been a source of strength and inspiration for my work.

I wish to thank Dr. Martin Barlosky for his meticulous attention to details and for providing me with many insights into the workings of academic research.

I am grateful to Dr. Sharon Anne Cook for providing valuable comments and suggestions that improved the content of the thesis.

I wish to thank Dr. Christine Suurtaam for her keen observations and feedback and her valuable advice on many aspects of the thesis.

I extend my sincere thanks to Dr. John Ross from OISE /University of Toronto for providing wise counsel concerning conceptual and methodological issues in qualitative research.

A special thank you is extended to my husband Lennox and son Sean who made every effort to be understanding and critical friends along my journey.


DEDICATION

This thesis is dedicated to the memory of my mother Marie C. Kielley and my uncle Joseph M. Kielley. They taught me that learning is a lifelong pursuit and that information becomes knowledge when it is shared with others.

DECLARATION

I hereby declare that this thesis, submitted in partial fulfillment of the requirements for the degree of Doctorate of Philosophy and entitled *Teacher Professional Development and Its Impact on The Improvement of Practice in One Ontario Secondary School*, represents my own work and has not been previously submitted to this or any other institution for any degree, diploma or other qualification.

Marjorie J. Hinds



November 2, 2007

TABLE OF CONTENTS

List of Appendices.....	v
List of Tables	vi
List of Figures.....	vii
Abstract.....	viii
List of Acronyms.....	x

CHAPTER 1: INTRODUCTION TO THE STUDY

Overview of the Study.....	1
Background to the Issue.....	4
Statement of the Issue	8
Purpose of the Study	9
Need for the Study	10
Research Questions.....	11
Definition of Terms.....	12
Conceptual Framework for the Study	16
Adult Learning	16
Self-Efficacy.....	18
Collective Efficacy.....	20
Supervision for Renewal.....	21

CHAPTER 2: LITERATURE REVIEW

Definitions of Professional Development.....	26
Purposes of Professional Development	27
Models for Professional Development.....	29
Characteristics of Effective Professional Development	31
Cultural Contexts for Effective Professional Development.....	33
Alignment of Professional Development Programs with Reforms.....	35
Conceptualization of Schools as Learning Communities	39
Leadership and Implementation of Professional Development.....	43
Tools for Assessing the Impact of Professional Development	52
Teachers' Self-Assessment of Their Professional Development.....	60

CHAPTER 3: METHODOLOGY

Rationale for Qualitative Inquiry Research	66
Case Study Design	67
Study Questions	68
Theoretical Framework	69
Units of Analysis.....	69
Ethnographic Methods	70
Researcher's Position	71
Site Selection	72
Participants.....	74
Instruments and Procedures Used for the Study	77
Data Analysis.....	79
Criteria for Interpreting the Findings.....	80
Triangulation.....	81
Participant Validation.....	82
Dependability.....	83

CHAPTER 4: CASE STUDY FINDINGS

Research Questions.....	86
Findings of the Study.....	86
1) How does a sample of high school teachers understand the definition and function of professional development?.....	87
Summary of Findings for Question 1.....	102
2) How does the existing design and implementation of professional development contribute to teachers' practices?	104
Summary of Findings for Question 2.....	128
3) What goals and aspirations do teachers have for professional development and how might these goals and aspirations contribute to their practices?.....	131
Summary of Findings for Question 3.....	147
4) Are the school boards' goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by teachers in the study?	149
Summary of Findings for Question 4.....	159
General Summary of the Findings	161
Key Findings for the Study	164

CHAPTER 5: ANALYSIS AND INTERPRETATION OF FINDINGS

Political, Social and Religious Influences on Teacher PD	170
Relationships.....	172
Trust as a Descriptor of Relationships	172
Collegiality as a Descriptor of Relationships.....	174
Team Building as a Descriptor of Relationships	175
Dialogue and Discourse as Descriptors of Relationships.....	176
Organizational Support	177
Resource Allocation as a Descriptor of Support.....	177
Technology as a Descriptor of Support	178
Organizational Assistance as a Descriptor of Support.....	180
Data Management as a Descriptor of Support	182
Governance	183
Leadership as a Descriptor of Governance	183
Developing Leadership as a Descriptor of Governance	185
Collective Responsibility as a Descriptor of Governance	187
Self-evaluation as a Descriptor of Governance	188
Culture.....	189
Change as a Descriptor of Culture	189
Compliance as a Descriptor of Culture.....	192
Collaboration as a Descriptor of Culture	194
Commitment as a Descriptor of Culture	195
Summary of Analysis and Interpretation of Case Study Findings.....	197

CHAPTER 6: DISCUSSION OF FINDINGS

Model for Transformational Professional Development	199
Findings and Adult Learning Principles	200
Findings and Self-Efficacy Theory	205
Findings and Collective Efficacy Theory	208
Findings and Supervision for Renewal Theory	212
Theory and Practice Outcomes	214
Independence and Sense of Control.....	214
Competence and Professionalism	215
Knowledge Integration.....	215
Reflective Practice and Joint Responsibility.....	216
Linking the Model's Constructs.....	216
Moving Toward Coherence	219
The Learning Culture of Teachers	221
Transformational Professional Development	229
Professional Development and Determinants of Effectiveness	231

CHAPTER 7: CONCLUSIONS AND IMPLICATIONS

Practical Contributions to the Field of Professional Development.....	235
Theoretical Contributions to the Field of Professional Development ..	237
Limitations of the Study.....	239
Areas for Further Research.....	240
Concluding Remarks.....	242
REFERENCES	244

LIST OF APPENDICES

Appendix A- Summary Guidelines for Field work.....	286
Appendix B- Summary Guidelines for Interviewing.....	287
Appendix C- Open-ended Interview Questions for Case Study	288
Appendix D- Letter of Invitation and Information to Participants	289
Appendix E- Lettre d'Invitation aux Participants.....	290
Appendix F- Participant Consent Form	291
Appendix G-Formule de Consentement des Participants	292
Appendix H-Professional Development Activities for Teachers.....	293
Appendix I- School Artifacts and Meetings Researcher Attended	294
Appendix J- Sample of Field Notes from One PD Day.....	296
Appendix K-Follow up Field Notes from the Same PD Day	299
Appendix L- School Board Professional Development Opportunities.	302
Appendix M-Annual Teacher Survey Results	305
Appendix N- Validation Report Form	308
Appendix O- Designing Adult Learning Activities	310
Appendix P- Transfer of Training Skills	311
Appendix Q-Concerns-Based Adoption Model.....	312
Appendix R- OCT Standards of Practice for the Teaching Profession	313

LIST OF TABLES

Table 1- Andragogical and Pedagogical Assumptions	315
Table 2- Demographic Information on Participants	74
Table 3- Participants Teaching Assignments in 2004.....	76
Table 4- Sources of Data for the Study.....	316
Table 5- Validation Forms Returned	317
Table 6- Ineffective PD for Teachers and its Effects on Practices	318
Table 7- Effective PD for Teachers and Its Effects on Practices.....	321
Table 8- Teacher Self-Evaluation and Upgrading of Qualifications	324
Table 9- Teachers' Reported Focus and Perception of School's Focus	325
Table 10-Factors That Negatively Impacted on Practices by Gender ..	326
Table 11-Factors That Positively Impacted on Practices by Gender	327
Table 12-Impact of PD Activities on Practices by Gender.....	328
Table 13-Factors That Negatively Impacted Practices/Grade Level	329
Table 14-Factors That Positively Impacted Practices by Grade Level.	330
Table 15-Impact of PD Activities on Practices by Grade Level.....	331
Table 16-Alignment of PD with Impacts on Teachers' Practices.....	332
Table 17- Typology of Research Methods.....	333

LIST OF FIGURES

Figure 1- Frameworks for Growth.....	23
Figure 2- Alternative approaches to Educational Research.....	334
Figure 3- Poster for Recruiting Candidates for the Study.....	335
Figure 4- Evaluating Training Programs	336
Figure 5- Components of Evidence-Based Education	337
Figure 6- Framework for Continuous Improvement.....	338
Figure 7- Five Levels of Professional Development Evaluation	339
Figure 8- Teachers' Perceptions of Their Focus and School's Focus ..	340
Figure 9- Model for Transformational Professional Development.....	200

ABSTRACT

This doctoral thesis focused on teacher professional development in one high school in Ontario, Canada, and explored how teachers perceived their emerging experiences as impacting on their practices. Administrators' perspectives on teacher professional development also were sought. Using a framework of adult learning, self-efficacy, collective efficacy and supervision for renewal, the study addressed the following questions:

- How does a sample of high school teachers understand the definition and function of professional development?
- How does the existing design and implementation of professional development contribute to teachers' respective practices?
- What goals and aspirations do teachers have for professional development and how might those goals and aspirations contribute to their practices?
- Are the school board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by the teachers in the study?

Key findings from in-depth interviews, validation surveys and observations revealed that the literacy initiative and mentoring for leadership programs were successful in promoting professional development of teachers. The present institutional teacher professional development programs, however, did not meet teachers' individual learning needs and had little or no sustained impact on their practices. Findings indicated that beginning teachers needed subject content and instructional strategies consistent with their assignments, mentoring, and skills in mapping the curriculum; mid-career teachers

needed training on inclusive classrooms, opportunities for collaborative work, and career counseling; and experienced teachers needed challenges for renewal, mentoring in communications technology and student assessment, and opportunities for promotions. The study's findings contribute to a better understanding of what constitutes effective professional development for teachers, present evidence of the effects that professional development had on teachers' practices and student achievement, and suggest ways of connecting research, policy and practice.

Keywords: adult learning, coherency, collective efficacy, learning community, self-efficacy, student achievement, supervision, and teacher professional development.

List of Acronyms

AERA	American Educational Research Association
ATLP	Annual Teacher Learning Plan
BERA	British Educational Research Association
CBAM	Concerns-Based Adoption Model
CCL	Canadian Council on Learning
CPD	Continuing Professional Development
CLC	Complex Learning Communities
EQAO	Education Quality and Accountability Office
ICT	Information Communications Technology
IEP	Individual Education Plan
IPRCs	Identification, Placement and Review Committee
NSDC	National Staff Development Council
OCT	Ontario College of Teachers
OECTA	Ontario English Catholic Teachers' Association
OSIS	Ontario Schools, Intermediate & Senior Divisions (Grades 7-12/OAC), Programs & Diploma requirements (former curriculum).
OSS	Ontario Secondary Schools Grades 7-12: Programs & Diploma requirements (new curriculum).
OSSLT	Ontario Secondary School Literacy Test
OSSTF	Ontario Secondary School Teachers Federation
PD	Professional Development
PLP	Professional Learning Program
RIO	Return on Investment
SDLRS	Self-Directed Learning Readiness Scale
SfR	Supervision for Renewal
STAO	Science Teachers Association of Ontario
TPAP	Teacher Performance Appraisal Program

Teacher Professional Development and Its Impact on Practices

This study sought to uncover and understand the meaning that twenty teachers in one Ontario high school attributed to their professional development experiences and how their ongoing experiences affected their respective classroom and other professional practices. The views of three administrators on teacher professional development were sought because of the role administrators play in approving and supervising various aspects of teacher professional development.

A review of the academic literature showed limited evidence of teachers explaining the effects of professional development on their practices. This seemed rather surprising particularly when one considers the many attempts made by a number of governments in the United States, England, and provinces in Canada to change teachers' practices through a long list of educational reforms some of which called for additional and intensified teacher professional development. It also seemed surprising, given public expectations of teachers. Cochran-Smith (2005a) found the public assumes that teachers can and should teach all students to world-class standards, be the linchpins in educational reforms of all kinds, and produce a well-qualified labour force to preserve their country's position in the global economy. Linking education and teacher professional development in particular with the country's economic prosperity has not been part of teachers' mindset in the past and has met, therefore, with some rejection and resistance from some teachers and their administrators (Walsh, 2006).

Clandinin and Connelly (1998) and Guskey (2000a) recognized teachers as key agents in the implementation of educational reforms and Fullan (2003a) stated that a vital public school system cannot be produced and sustained without a dedicated, highly

competent teaching force, that is, “teachers in numbers, working together for the continuous betterment of the schools” (p.5). Based on the expectations placed on teachers, it would seem reasonable to want to understand how teachers think about professional development and therefore to investigate the impact that professional development has on their practices. That is the purpose of this study, developed as follows:

Chapter 1 provides the background to the issue and outlines the need for a study of teacher professional development and its impact on practices. It introduces the research questions, defines the terms used in the thesis, and provides a conceptual framework for the study.

Chapter 2 reviews the literature relevant to teacher professional development in high schools. Within the context of school reform, the review describes models and purposes of professional development. It also examines the characteristics of effective professional development and supports for and barriers to its implementation. The review considers findings from both small-and large-scale studies and explores strategies for assessing the impact of professional development on teachers’ practices.

Chapter 3 outlines the research methodology used for the study. The chapter includes a discussion on the design of the study and ways of achieving reliability and validity in qualitative research. It also provides details of the site selection, a profile of the study participants, an outline of the instruments used to obtain data, the modes of analysis and criteria for interpreting the findings.

Chapter 4 sets out the findings from the inquiry, including descriptions by teachers of how design and implementation of professional development issues have affected their

practices, their goals and aspirations for professional development, and the congruence between their goals and aspirations and those of their school board.

Chapter 5 interprets the findings and focuses on the provincial political climate in Ontario together with the concepts of relationships, resources, governance and culture as key determinants in facilitating or hindering professional development that affected teacher and student learning.

Chapter 6 discusses how teachers measured the impact of professional development on their practices and suggests how using adult learning, self-efficacy, collective efficacy and supervision for renewal can provide a strategy for the transformation of learning at the teacher level.

Chapter 7 discusses the practical and theoretical contributions of the study to professional development theory, the implications and limitations of the findings and offers suggestions for future professional development and its assessment in high schools.

CHAPTER 1: INTRODUCTION TO THE STUDY

Teacher Professional Development and Its Impact on Practices

This chapter provides the background to the issue of whether or not teacher professional development changes teachers' practices and promotes student achievement, and outlines the need for a study of the issue. This chapter introduces the research questions, states the purpose and need for the study, defines the terms used throughout, and provides a conceptual framework for the study.

Background to the Issue

Over the past two decades, almost every aspect of the social institutions in many societies has experienced widespread change. As part of that change process, Goodson (2001) explained that "the power or positional strength of internal change agents to develop their own internal and personal visions of change has been substantially pre-empted" (p. 48). In other words, rather than relying on teachers' professional judgments, governments through their policies have prescribed and have directed what students and teachers should know and do. Thus, teachers have found themselves working in a climate of government set standards and accountability with little room to apply their own initiatives or judgements. Darling-Hammond and Rustique-Forrester (2005), Kerr (2006), and Levin (2003) have urged researchers to focus on research efforts that reflect teachers taking control of their work lives and on ways to improve research-practice links in education in order to address the imbalance in the dominance of the educational bureaucracy and at the same time advance the knowledge-base in the field. Eisner (1992)

suggested that educators, by being critically minded and intellectually curious, could frame and pursue their own educational aims.

In Ontario, Canada, where this study was situated, the provincial government introduced comprehensive educational reforms in 1997 based on recommendations in the *Government of Ontario, Ontario Royal Commission on Learning*, 1994. The government, intent on altering the education system, also introduced new curricula, instructional time provisions, safe-school policies, and regulations for teacher evaluation as part of the *Quality in the Classroom Act* (Roher & Wormwell, 2000). The purpose of these initiatives was to promote consistency across the province; the by-product was centralization and government control (Gidney, 1999; Roher & Wormwell, 2000). In addition, the government reduced the number of teacher professional development days from nine to four per year. Overriding the recommendations for voluntary professional development of the Ontario College of Teachers (henceforth known as the College), the government required the College to oversee the Professional Learning Program (PLP) that required each teacher to complete 14 mandatory formal courses over five years. Failure by a teacher to comply with the requirement would result in losing the licence to teach. The response of Ontario's 126,000 teachers to such reforms was a two-week work stoppage (Lasky, Moore & Sutherland, 2001; OSSTF, 1997; Roher & Wormwell, 2000). The reforms had a wide range of effects on every facet of education.

The issue of control over professional development has brought with it great divergence in thinking about who controls and who should control the agenda and the parameters of professional development. Ingvarson (1998) argued that spelling out what practitioners need to know and need to do is a core function of professional associations,

not governments. A system of teacher training that had specific standards for professional development would, in his view, “place greater responsibility for professional development in the hands of the profession and thereby strengthen teachers’ sense of ownership and responsibility for its quality” (p. 138). Ingvarson, Meiers and Bevis (2005) indicated term “practice,” for teachers attempting to build a leaning profession, refers to the following: a) making clear links between teachers’ teaching goals and classroom activities; b) managing classroom structures and activities more effectively; c) using more effective teaching and learning strategies appropriate to the content that they teach; d) using more effective teaching and learning strategies appropriate to the classroom context; e) using teaching and learning strategies that are more challenging and engaging and are better able to meet the individual learning needs of their students; f) linking assessment into the teaching and learning cycle more effectively; g) providing more effective feedback to their students to support the students’ learning; h) engaging students in higher order thinking; and i) assessing and using materials and resources more effectively (p.10).

Hargreaves (2003), Lambert (2003), and Marczely (1996) viewed professional development in terms of a self-directed personal journey, and Squire (1998) promoted “the emerging image of professional learning where being a teacher includes the notion of teacher as learner” (p. 14). On the other hand, Sergiovanni and Starratt (2002) asserted that professional development is more than an individual matter since it proceeds through the interplay and resolution of conflict between the growth needs of individual teachers and the demands of school district boards.

Many researchers have argued against the narrow, short-term, episodic or prepackaged models of teacher professional development. They noted that new types of professional development would require professional cultures in which teachers function as professionals rather than technicians, that is, teachers would be expected to participate in decision-making concerning curriculum, instructional strategies and assessment and evaluation practices rather than follow a prescribed plan of action (Guskey, 2000a; Lambert, 2003; Little, 1993; McLaughlin & Talbert, 2001; Starratt, 2003). Mitchell and Sackney (2001) suggested that fundamentally, what is needed to change the type of and support for professional development is a transformation in the learning cultures of schools and the teaching profession itself.

New professional cultures would offer teachers an opportunity to plan, collaborate, work, reflect, and grow together (Lieberman, 1995; Ross & Bruce, 2006b). In addition, new cultures would give teachers a greater degree of autonomy and decision-making authority (Freidson, 2001). The National Writing Project in the United States is one example of a new learning culture that fosters learning through teachers pursuing clear goals, engaging in collaborative activities, and taking collective responsibility for student learning (Lieberman & Wood, 2003). This is not the norm, however. Willms (1999) asserted that blame must not always be attributed to the organizational level; sometimes educators have learning cultures in their midst but have not investigated what makes them successful. He cited the case of Francophone students from Quebec who significantly outperformed other students on national and international mathematics assessments for well over a decade, yet there had been little effort to systematically examine why.

An important aspect of the larger issue of professional development is the matter of support for teacher professional development in the face of change (Hyde & Pink, 1992). Darling-Hammond (1997), Guskey (2003), and Loucks-Horsley, Hewson, Love and Stiles (1998) argued that, as society changes, teachers will need substantially more knowledge and different skills than most now have and they will need ongoing support from universities, school districts, and administrators.

Statement of the Issue

The issue for this study is whether or not teacher professional development changes teachers' practices and promotes student achievement. It is my hypothesis that by using the principles underlying adult learning, and the theories of self-efficacy, collective efficacy and supervision for renewal, the focus of professional development could shift from training to learning and presumably increase the success of teacher learning and the application of that learning to the classroom because teachers would have some decision making power over their own development.

There are many difficulties with the present-day design, implementation, and assessment of professional development in North American high schools. Three of the major interconnected difficulties commonly cited in the literature are the following:

- Too many reforms leave little time for professional development (Fullan, 2000; Ryan & Joong, 2005).
- Too many opportunities for professional development are piecemeal and fragmented; there is no coherent plan for professional development (Hammerness, 2006; Hannay, 2004).

- Too often it remains uncertain whether professional development translates into positive changes in teaching practices (Clandinin & Connelly, 1998; Smaller, Tarc, Clark, Hart, & Livingstone, 2005; Levin, 2003; Ross & Gray, 2006a).

The literature also is divided over the best approaches to the design, implementation and evaluation of professional development for teachers in high schools. Four possible explanations for the divisiveness cited in the literature are:

- School improvement by districts has been confined largely to elementary and some middle schools (Fullan, Bertani & Quinn, 2004);
- Ontario Educational Reforms and the changing context of education and accountability in high schools are poorly understood (Levin, 1995);
- Large size high schools and their division along subject disciplines make coordination for collaborative learning difficult (Quint, 2006); and
- A culture of individualism pervades many North American high schools (Richardson, 2003).

Purpose of the Study

The primary purpose of this study is to examine professional development from teachers' and administrators' perspectives, to understand the meaning and purpose that teachers attached to their ongoing professional development experiences, and to describe and interpret how these experiences affect teachers' practices. The goals are to uncover the discernible interaction of factors characteristic of professional development, to gain insights into the relationship between effective professional development and

improvement in practices and to learn how to recognize patterns that support and/or undermine teacher learning.

Participants were asked to reflect on their experiences with professional development, with a view toward using their insights in re-conceptualizing aspects of the design, implementation, and assessment of professional development programs and providing possible future direction for policymakers. The study also involved interviewing three administrators on the subject of teacher professional development; their interviews provided a basis for comparison between teacher and administrator perceptions on many issues pertaining to professional development activities and programs or opportunities for learning.

Need for the Study

Mounting evidence suggests the need for new cultures of learning in schools not only for students but also for teachers (Bandura, 1994; Bransford, Brown & Cocking, 2000; Darling-Hammond, 1998; Fullan, 2003b; Guskey, 2000b; Knowles, 1980; Lambert, 2003; Sergiovanni & Starratt, 2002; Sparks & Hirsh, 1997; Wayman & Stringfield, 2006). Professional development providers, researchers, and policymakers need to know more about how teachers are responding to the demands for accountability and the ways in which their beliefs or values, expectations, and perceptions of their students may be changing along with the policy climate (Darling-Hammond & Rustique Forrester, 2005).

Tracking what and how teachers learn as well as how they use what they have learned, and to what effect, is in many ways the newest area of research on teacher development and learning (Darling-Hammond & Bradsford, 2005, p. 29). If, as Fullan

(2003a) and others asserted, teachers are key agents in the implementation of school reform, it is time to investigate, from their perspectives, the links between effective professional development and improved practices. If policymakers were to consider teachers' perspectives, this might assist in enhancing knowledge of what and how teachers learn, building school capacity for lifelong learning, and obtaining new insight into teacher-student learning (Darling-Hammond, 2006b; Desimone, Porter, Birman, Garet, & Yoon, 2002a; Earl, Levin, Leithwood, Fullan & Watson, 2003; Fullan, Bertani and Quinn, 2004; Guskey, 2003; Hargreaves, 2003; Lieberman & Miller, 1999; Little, 1999; Richardson, 1997; Sparks, 1999; Youngs & King, 2002).

Research Questions

The literature and my own reflections throughout my teaching and administrative career concerning what constitutes effective professional development, whether professional development changes teachers' practices, and whether professional development should be assessed and evaluated have led me to pose the following questions for this study:

- How does a sample of high school teachers and administrators understand the definition and function of professional development?
- How does the existing design and implementation of professional development contribute to teachers' respective practices?
- What goals and aspirations do teachers in the school's study site have for professional development and how might those contribute to teachers' practices?

- Are the school board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by the teachers in the study? (school board here refers to the district school board of which the school study site is a part)

Definition of Terms

Adult learning principles are derived from andragogy. Andragogy refers to “the art and science of helping adults learn” (Knowles, 1980, p. 42).

Capacity building refers to the process of giving people the training, resources, and opportunity to pursue complex tasks and then holding them accountable for implementing change (Heifetz & Linsky, 2002).

Coherence denotes connectedness, which, in turn, suggests consistency and accord among elements. Program coherence, however, does not mean that all parts are so tightly structured that few opportunities exist for making new connections to new ideas (Buchmann & Floden, 1991).

Collective-efficacy refers to the perceptions of teachers in the school that the faculty can organize and execute the courses of action required to have a positive effect on students (Goddard, 2004, p.7).

Constructivism refers to a philosophy that cuts across multiple disciplines (Bruner, 1996, 1999), a learning theory (Brooks & Brooks, 1993), a model for learning (Howard, McGee, Schwartz & Purcell, 2000), and a branch of cognitive psychology (Ornstein & Hunkins, 1998). Constructivism is concerned with how

teachers' personal understanding or knowledge is formed and used to inform instruction.

Design refers to the content and form of a program (Fullan & Stiegelbauer, 1991, p. 65).

Culture refers to the sum total of the shared assumptions that a group has learned throughout its history, including how the group or organization views itself in relation to its various environments (Schein, 1999). Culture also refers to the values, ceremonies and ways of life characteristic of a given group. It is one of the most distinctive properties of human social association (Giddens, 2006).

Formal education refers to the transmission of knowledge from one generation to another by means of direct instruction. Although educational processes exist in all societies, it is only in the modern period that mass education has taken the form of schooling, that is, instruction in specialized educational environments in which individuals are compelled by law to spend several years of their lives (Giddens, 2006). Education may also occur as the process of extending learning, or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site, to another classroom, building or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional methods (Instructional Technology Council, 1998).

Effectiveness refers to professional development that provides teachers with a way to apply what they learn directly to their teaching (Resnick, 2005, p. 4).

Implementation refers to the process of putting into practice a program or set of activities that is new to the people attempting or expected to change (Fullan & Stiegelbauer, 1991, p. 65).

Learning community refers to schools characterized by shared purpose, collaborative activity, and collective responsibility among staff for their own and student learning (Newmann & Associates, 1996; Dufour, Eaker & Dufour, 2005).

Learning organization refers to an organization that is continually expanding its capacity to create its future (Senge, 1990, p. 14). Within a learning organization, the individual may be more concerned with gaining knowledge, understanding and skills for his or her personal use; the organization may be more concerned with evolving perceptions, visions, strategies, and transferring knowledge. Both the individual and the organization are concerned with discovery and invention (Kim, 1993).

Lifelong learning refers to the concept that learning and the acquisition of skills should occur at all stages of an individual's life, not simply in the formal educational system early in life. Adult continuing education programs, mid-career training, internet-based learning opportunities, and community-based learning banks are ways in which individuals can engage in learning (Giddens, 2006).

Professional development refers to "a process by which teachers learn... an independent, evidence-informed and constructively critical approach to practice within a public framework of professional values and accountability, which are also open to critical scrutiny" (Bolam, 2000, p. 272).

Reforms refer curriculum changes, standardized and centralized testing, multicultural education, and school governance in English speaking democracies in response to global competition. In Ontario, Canada, reform refers to a comprehensive reform package introduced in 1997 by the government that intended to fundamentally alter the educational system. These reforms were set out in the *Fewer School Board Act*, 1997 (Bill 104) and the *Education Quality Improvement Act*, 1997 (Bill 160) (Roher & Wormwell, 2000, p.3).

Self-efficacy refers to “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994, p. 71).

Supervision refers to the definitional act of administrators monitoring teachers’ work (Salaman, 1995, p. 65). The approach to supervision that is recommended by Sergiovanni and Starratt (2002) is one that sees school administrators acting as instructional leaders and having as their purpose students’ academic success (p. 6). This approach also includes the promotion and maintenance of good work standards, the educational development of each individual worker, and the maintenance of harmonious working relationships (Kadushin, 1992).

Teachers’ experience designates respectively, beginning teachers (1-5 years experience), mid-career teachers (6-15 years of experience), and experienced teachers (16+ years of experience).

Teacher practices refer to duties stipulated under legislation as well as to principles of a profession (Roher & Wormwell, 2000, pp. 20-21). Teaching practices also often refer to two instructional methods: 1) the traditional

transmission of facts to students, and 2) a type of instruction characterized by higher order tasks, where students are encouraged to pose hypotheses and explore ways to test them (Sizer, 1992).

Conceptual Framework for the Study

Adult learning, self-efficacy, collective-efficacy, and supervision formed the conceptual framework for this study. Collectively, the four concepts and the principles and models surrounding them offer guidance and possibilities for discussing teacher professional development.

The rationale for choosing these four areas stemmed from the fact that they have the potential of showcasing teachers' values and beliefs concerning professional development and its relationship to their practices. Also, since learning is often considered a precursor of change, this framework can act as a coherent unit to investigate the conditions for learning and the institutional context within which teachers function and change their practices. Some additional information on each of the four areas will help further explain the framework.

Adult Learning: Knowles (1980) based his approach to adult learning on the theories of Dewey, Lindeman, Maslow, and Rogers (Malinen, 2000). He positioned his work as universally applicable and argued that the mission of education is to produce competent people. Knowles (1970) set out what he called four 'assumptions' on adult learning. These assumptions indicated that teacher educators have a responsibility to help adult learners in the normal movement from dependency toward increasing self-directedness and providers must recognize that adults have a reservoir of experience that is a rich

resource for learning. Furthermore, the assumptions postulated that people are ready to learn something when it will help them cope with real-life tasks or problems and that learners see education as a means to develop increased competence (p.39). Knowles, Holton and Swanson (1998) added two additional assumptions that indicated adults need to know the reason to learn something and the most potent motivators for adult learning are internal, such as self-esteem.

Knowles also set out a number of principles that act as guidelines on how to teach adult learners who tend to be at least somewhat independent and self-directed. These principles include establishing a learning climate in which learners feel safe and comfortable expressing themselves and involving learners in the planning of curriculum content and methods. Other principles encompass providing an opportunity for learners to diagnose their own needs and encouraging learners to formulate their own learning objectives. Of critical importance to adult learning also are the further principles of encouraging learners to identify resources and strategies for employing the resources to achieve their objectives, supporting learners in carrying out their plans, and involving learners in evaluating their own learning so that they develop their skills of critical reflection. In the hands of a skilled and dedicated facilitator, these principles can make a positive impact on the adult learner (Hiemstra & Sisco, 1990). The generally held assumption is that by knowing the characteristics of adult learners and principles of adult learning, program providers will incorporate these into their professional development programs and thereby contribute to learner development (Taylor, Marienau, & Fiddler, 2000), teacher change (Erdmann, 1998), autonomous thinking (Mezirow, 1997), and knowledge of communities of practice (Wenger, 1998).

Andragogy's principles have a successful history and as such can be employed to create more optimal learning environments for teachers. The principles also could be used to bridge the gap between theory and practice concerning professional development and its impact on practices, and produce teachers who, because of their own learning experiences, provide better learning experiences for their students (Table 1 notes pedagogical and andragogical approaches to learning). Adult learning is an important component of teacher professional development because it recognizes the role of the teacher in his or her own learning. Schuller, Brassett-Grundy, Green, Hammond and Preston (2002) found that adult learning positively affects situational confidence which can be transferable to other areas of a person's life, therefore influencing their overall level of confidence. Adult learning therefore has the potential to enhance teacher self-efficacy, self-esteem, and confidence - characteristics that are essential for a vibrant learning community.

Self-Efficacy: Efficacy is concerned not with the cognitive, social and behavioral skills that one has but with judgments about what one can do, with whatever skills one possesses. Bandura (1986) suggested the environment, an individual's behaviour, and an individual's perception (internal processes) affect each other in a reciprocal fashion. Ross (1998) reported, "teacher efficacy is enhanced when teachers have greater control of their workplace" (p. 56). He cautioned, however, that teacher efficacy is "a self-perception, not an objective measure of teaching effectiveness" (p. 49). Ross further noted that with experience teachers develop a relatively stable set of core values about their abilities, and the relationship between experience and teacher efficacy is reciprocal (p.228). Stajkovic and Luthans (1998), using a meta-analysis of 114 studies, examined

the relationship between self-efficacy and work-related performance and found that while goal setting, feedback interventions, and organizational behaviour modification affected task performance, positive self-efficacy represented a 28% increase in task performance. This finding has practical implications for developing today's human resources in schools.

Bandura's theory of self-efficacy (1997) also is applicable to teachers at various stages of their careers. For example, he suggested that beginning a productive teaching career poses a major transitional challenge to some teachers, and in the preparatory phases, perceived self-efficacy partly determines how well individuals will develop basic cognitive, self-management and interpersonal skills. He found that although there is rapid technological change in most workplaces that require the adoption of new technical skills, psycho-social skills contribute more heavily to career success than do technical skills.

Maurer (2001) also examined teachers' career stages and found the age of a worker, in combination with organizational, social, and administrative/managerial influences, might lead to reduced self-confidence for learning in older workers. He suggested that through addressing the antecedents of mastery experiences, vicarious influences, and physiological influences, organizations have a better opportunity for managing older workers' self-efficacy for learning and development. Maurer did not discuss the ethical implications that could arise if schools attempted to "manage" subjectivities.

There is a need to understand more fully personal teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2001) and to develop ways to augment a strong sense of efficacy among teachers. By utilizing self-efficacy theory within teacher professional

development, teachers as agents of self-efficacy can intentionally “play a part in their self-development, adaptation, and self-renewal” (Bandura, 2001, p.2). Just as self-efficacy is important for teachers’ growth and development, in a similar manner, collective efficacy is important because it can influence a teaching team’s collective effort and persistence in difficult situations, and is a characteristic of successful groups.

Collective efficacy: Collective efficacy adds an organizational dimension to any inquiry about efficacy beliefs in schools. Collective efficacy beliefs, although empirically related to self-efficacy beliefs, are theoretically distinct constructs, each having unique effects on educational decisions and student achievement (Goddard, 2004, p.3).

Collective efficacy is associated with higher group aspirations and motivational investment in a group’s tasks, stronger staying power in the face of impediments and setbacks, higher morale and resilience to stressors, and greater performance accomplishments (Bandura, 2001). For schools, collective efficacy refers to the perceptions of teachers in the school that the faculty can organize and execute the courses of action required to have a positive effect on students (Goddard, 2004, p.7). Collective efficacy, therefore, affects the types of professional experiences and opportunities that teachers have in schools.

Little and Madigan (1997) found that collective efficacy is a strong predictor of group effectiveness and suggested that collective efficacy has a mediating or facilitating effect on team performance. Similarly, Goddard, Hoy, and Woolfolk Hoy (2000) and Tschannen-Moran and Barr (2004) found a link between collective efficacy and student achievement. Goddard et al. (2000) noted that this link occurs, from a theoretical

perspective at least, because a robust sense of group capability establishes expectations for success that encourage members to work with resilience toward desired ends.

Ross and Gray (2006b) also found that “collective teacher efficacy is a powerful mediator of commitment to school-community partnerships and a partial mediator of commitment to school mission and to the school as a professional community” (p.193).

Based on the above findings, collective efficacy may have a greater role to play than it has in the past in expanding our understandings of professional development, teacher practices, organizational development, and student learning.

Supervision for Renewal: Including supervision as part of the framework for this study is important because supervision acts as a mediator between the individual, the group of teachers, and the school board. Supervision also has the potential to accelerate teacher growth through providing adequate support and resources. The type of supervision and the manner in which it is carried out affects the teaching and learning culture of the school.

One of the most important responsibilities of school principals is the supervision of instruction. Goldhammer, Anderson and Krajewski (1993) defined one form of supervision, “clinical supervision,” as that aspect of instructional supervision which draws upon data from direct firsthand observation of actual teaching, or other professional events, that involves face-to-face and other associated interactions between the observer(s) and the person(s) observed to define and/or develop next steps toward improved performance. These researchers argued that this form of supervision is more likely to promote teacher growth than more hierarchical supervision. Poole (1995), however, pointed out that during the 1980s, clinical supervision “became almost

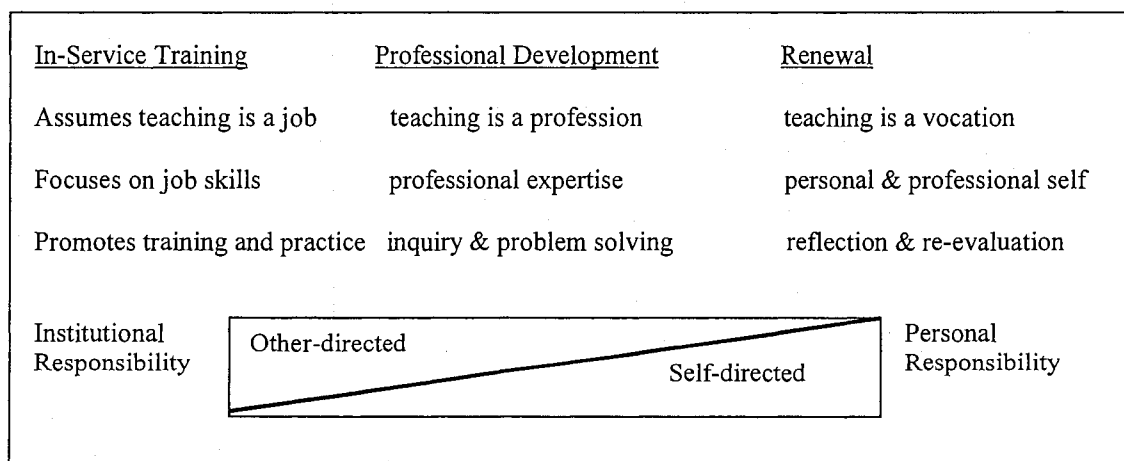
synonymous with the behavioral, technical approach” (p.286) and an instrument of teacher control.

Traditionally, the process of being attached to an expert (supervisor) and learning through doing was designed to allow beginning teachers to gain knowledge, skill and commitment and enabled them to enter into a particular community of practice (Lave & Wenger, 1991). Indeed, the clinical model of supervision may be what many new teachers need. Experienced teachers, however, have supervisory preferences and needs. Only a small percentage of such teachers require the benefits of clinical supervision. Competent experienced teachers should be given the choice of working under a collaborative model or in a self-directed mode (Glatthorn, 1990; Day, 1999) because experienced teachers often have much to offer in the realm of sharing their expertise in content /pedagogical knowledge, mentoring new teachers, developing new knowledge based on their vast experiences in the teaching profession or they may be in need of intellectual stimulation and reflection time to foster their own growth.

New understandings about school structures, standards, accountability, time frames, professionalism, teaching and learning, teacher development, leadership, and sources of authority call for a redefinition of supervision itself. Sergiovanni and Starratt (2002) believe that those who exercise supervisory responsibilities are in a unique position to nurture, develop and articulate the vision of what a learning community can and should be. They presented a model entitled “Frameworks for Growth” (see Figure 1). The model attempts to symbolically bridge the gaps in much current thinking and to move teachers along a continuum of growth through professional development, as follows:

In the first phase, entitled “In-Service Training,” there is an assumption on the part of supervisors that teachers possess limited capacity or willingness to figure things out on their own. This scenario requires a high degree of administrative planning and scheduling. The authors noted that this one-size-fits-all type of professional development is often more about meeting legal requirements than about growth. The second phase of the model, “Professional Development,” focuses on joint responsibility with supervisors providing teachers with the opportunities and resources they need and teachers reflecting on their practices and sharing their best practices with others. The third phase, “Renewal,” occurs when supervisors move from providing experiences and opportunities to encouraging teachers to take personal responsibility for their professional growth and development (Bolin & McConnel Falk, 1987). Figure 1 illustrates the tension between the institution with its legislative mandate for teacher professional development and the individual with his or her felt responsibility to remain current in the profession.

Figure 1. Frameworks for Growth



From *Supervision: A Redefinition*, 7th edition, by T. Sergiovanni & R. Starratt, 2002, p. 207.

The overarching purpose of supervision is to enhance teachers' professional growth by providing them with feedback regarding effective classroom practices (Sergiovanni, 1992). The feedback from supervision is a form of professional development that can impact teachers' practices and therefore needs to be articulated in terms of teachers' and supervisors' understandings of the teaching-learning process.

This chapter provided the background to the issue of whether teacher professional development changes teachers' practices and promotes student achievement. The chapter introduced the research questions, stated the purpose and need for the study, defined the terms used throughout, and provided a conceptual framework: adult learning, self-efficacy, collective efficacy, and supervision for the study.

The literature review in Chapter 2 deals primarily with professional development of teachers in high schools and situates professional development in a broad and historical context. Although school improvement and ideologies such as democratic education are important aspects to be considered in teacher professional development, these concepts are not within the scope of this investigation. The study limits itself to those areas that directly affect teachers' understandings of professional development and its impact on their practices. The literature review provides information on what research has been carried out in the field of professional development and the strengths and weaknesses of some of the existing studies, and identifies how this research sets the stage for further knowledge generation in the field of professional development.

CHAPTER 2: LITERATURE REVIEW

Teacher Professional Development and Its Impact on Practices

Does teacher professional development change teachers' instructional practices and promote student achievement? This is a question that often arises upon examining the literature on professional development. An accompanying question is- how should professional development be assessed?

Before addressing issues specific to assessment and evaluation, it is necessary to consider what is meant by "professional development." The trend in the literature on teacher professional development is to depict a polarization: one pole focuses on standards, accountability and teacher training; the other focuses on principles, responsibility and teacher learning. This review encompasses both of these poles and the continuum between them. It does so because in order to understand teacher professional development it is important to get a sense of where teachers have been, where they are now, and where they want to be in relation to their professional development. To accomplish this agenda, the review considers: a) definitions of professional development, b) purposes of professional development, c) models of professional development, d) characteristics of effective professional development, e) supportive contexts of effective professional development, f) alignment of professional development programs with reforms, g) conceptualization of schools as learning communities, h) leadership and implementation of professional development, i) tools for assessing the impact of professional development on teacher practices, and j) teachers' self-assessment of their professional development.

Definitions of Professional Development

How professional development is defined makes a difference to the time and resources that are allocated to teachers' development. Researchers have used many definitions. A. Hargreaves (1995), for example, suggested that professional development encompasses not only a technical dimension of knowledge and skills of teaching; it also has moral, emotional, and political dimensions. Guskey (2000b) used the words "ongoing, intentional, and systematic process" to define professional development (p.16). Elmore and Burney (1997) wrote, "Professional development is what administrative leaders do when they are doing their jobs, not a specialized function that some people in an organization do and others don't" (p.14). Bolam (2000) was one of the first researchers to define professional development in terms of a process by which teachers learn an independent, evidence-informed and constructively critical approach to practice within a public framework of professional values and accountability. A number of researchers have suggested that the term "professional development" has been replaced by a broader signifier - lifelong learning or a learning community (Davis & Sumara, 1997; Mitchell & Sackney, 2001; Sackney, Walker & Mitchell, 2005). These definitions of professional development paint a picture of broad possibilities for professional development, yet researcher after researcher also provided evidence of the prescriptive nature of professional development that affects teacher morale (Barber, 2005; Lasky, Moore & Sutherland, 2001) and sense of professionalism (Cochran-Smith, 2005b; Evans, 2007; Fullan, 2003b; Ontario Ministry of Education, 2004b), and how time and resources have been allocated to fit narrow Ontario Education reforms that focus on student achievement through testing (Gidney, 1999; Ingvarson, 2003; Walsh 2002).

Purposes of Professional Development

Determining the purposes of professional development makes a difference to the expectations organizations have for teachers and teachers have for themselves. If, for example, the purposes for professional development are identified as: 1) *establishment*, which refers to the transmission of information; 2) *enhancement*, which refers to expanding existing knowledge resulting from new knowledge in the field, and 3) *maintenance*, which refers to compliance with administrative modes of operating (Schlechty & Whitford, 1983), then the course of action taken by school boards, administrators and teachers will be different than if the purposes of professional development are stated in broader terms such as meeting the needs of all students.

Borko (2004), for example, stated that “Teacher professional development is essential to efforts to improve our schools” (p.3). A. Hargreaves (2003) suggested that the purpose of professional development is to move away from standardized scripts and sects of performance towards professional learning communities in which there is shared inquiry, local solutions, joint responsibility and continuous learning. Cochran-Smith (2004) and Weissglass (2002) argued that teacher education is not merely about implementation and expedient efficiency for student achievement. Teacher education and professional development is also about educational equity, culture, race, diversity, and social justice. They asserted that these issues should be part of the current debate on what teachers should know and do, together with standards, content, and accountability. Similarly, Giroux and Schmidt (2004) contended that the new accountability seems to be more concerned with the imperatives of the marketplace and as such, “teachers are excluded from designing their own lessons and the pressure to achieve passing test scores

often produces highly scripted and regimented forms of teaching” (p.222). Further, the Canadian Council on Learning (2007) has suggested that “as long as adult learning is viewed narrowly in terms of the labour market, and largely focuses on the education and training of youth, the country’s ability and desire to develop a learning culture will be limited” (p.45).

Although the moral and emotional aspects of professional development are mentioned to a lesser degree than the political dimensions in the literature, several authors, including A. Hargreaves (1995), mentioned above address the importance of these aspects. Ravitch (2000) maintained the main purpose of teacher professional development to be a moral one; it is to address teachers’ needs to know their curriculum content and to teach all children. She noted that the “progressive education movement” has deprived students from all socio-economic groups, but especially poor students, of the rigorous academic education that would help them advance in society. Ravitch contended that, regardless of good intentions, an array of destructive views from social determinism to naturism has put students at risk.

Some of the literature provides evidence that policymakers are focused *not* on a variety of purposes, as stated above, but on identifying what teachers need to learn to improve student outcomes (Cohen & Hill, 2000; Kennedy, 1999; Mundry & Loucks-Horsley, 1999; Wilson & Berne, 1999) and mandating standards and performance assessments as a framework for professional development (Darling Hammond, 1999; Garet, Porter, Desimone, Birman & Yoon, 2001; Ingvarson, 1998, 2003). As persons belonging to a profession, teachers expect to have some autonomy over their professional development (Little, 2003; McLaughlin & Talbert, 2001). Ingvarson (2003) argued,

however, that professionalism means autonomy only in return for fulfilling the obligation of accountability (p.19). In contrast, Freidson (2001) maintained, “on professional grounds members of a profession have a right to refuse to obey laws when the value or purpose of a discipline is being perverted (p. 221). While I agree with Freidson that the autonomy of professional organization and professional work, in this case, in education is under assault and needs support, I also believe that educators, in order to resist economic and political forces that are challenging and eroding professionalism in education need to marshal around transcendent values and demonstrate on an ongoing basis commitment to acquiring expert skills that promote their own and student learning.

Models for Professional Development

Knowledge of models of professional development that have been researched and tested can assist in developing capacity within schools. In the minds of many educators, however, training is synonymous with professional development (Guskey, 2000b, p. 22). While training sessions may be efficient and cost effective for dealing with large audiences, and some matters, they do not include teachers in the planning, development of objectives, phases of development or assessment of the learning. In fact, some training sessions are “one shot” workshops. In a meta-analysis of existing research on teacher professional development, Sparks and Loucks-Horsley (1990) found that many schools adopted models of professional development with limited knowledge of their underlying theory, usefulness, or relevancy to a particular need or context.

Little, Erbsstein and Walker (2001) espoused finding and using models that would be most beneficial to teachers’ particular situations and that would require schools and

educators to evaluate their needs, cultural beliefs, and practices. They suggested that prior to engaging in professional development, teachers might use the Concerns-Based Adoption Model (CBAM). This model focuses on what happens to individuals when they try out new practices or implement innovations. A basic tenet of this seminal work is that people are most concerned about how change affects them personally (Hall, Loucks, Rutherford & Newlove, 1975). Guskey (2002) also recognized that much of the professional development that occurs takes place after reform has been introduced or while it is being implemented. His model of “teacher change” proposed that professional development should precede the implementation of new ideas in classrooms (p. 383). This permits teachers to try out new ideas and witness positive student outcomes before they fully embrace a specific model of professional development.

Other models of teacher professional development that use a constructivist approach to learning focus on learning in groups as opposed to individual learning. Researchers Elmore (2002), Hyde and Pink (1992) and Lortie (2002) maintained that teachers derive something valuable from experience in groups that they cannot obtain from individual training or attending lectures on their own. By working in groups teachers acquire “empirical insight into the processes of personal interaction” (Waller, 1965, p. 1). Leading educational organizations, such as the Association of Supervision and Curriculum Development, have suggested that professional development is no longer about individual improvement. Rather, the emphasis has shifted to team building and what the team knows and can do (Carter, 2006).

A model of professional development that is sometimes overlooked is “teacher practices” defined as what teachers actually do (theories in use or non-canonical

practice). Brown and Duguid (2000) commented that “Practice is an effective teacher and the community of practice an ideal learning environment” (p.127). They noted that only by engaging in work and talking about the work from the inside can one learn to be a competent practitioner. To build capacity in schools, training models alone will not provide professional growth and improvement at both the individual and organizational levels. Study groups, action research, and technology networks are but a few examples of the kinds of tools that schools can use to promote ongoing individual and collective teacher growth (Dede, Korte, Nelson, Valdez, & Ward 2005; Edmondson, 2005; Goodson, 1999; Grant 2001; Kincheloe, 2003).

Characteristics of Effective Professional Development

Who decides what constitutes effective professional development for teachers? For decades, educational researchers have argued that teacher professional development should provide collaborative learning environments, research and inquiry, engagement in practical tasks of instruction and assessment, and consistent feedback and follow-up activities (Joyce & Showers, 1980; Loucks-Horsley, Hewson, Loves & Styles, 1998). Hawley and Valli (1999), in their synthesis of the professional development literature, found that high-quality professional development is informed by research on teaching, is integrated with district goals, utilizes collaborative problem solving, provides sufficient time and other resources for teacher interaction and learning, is continuous and ongoing, incorporates principles of adult learning, and is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning (pp.127-150). However, such a cohesive and coherent model of professional development is seldom practiced (Guskey, 2003; Snow-Renner & Lauer, 2005). Hammerness (2006) argued that effectiveness in

teacher professional development programs is hampered by the fact that “too often... programs consist of a set of disconnected individual courses; [and] separate clinical work from course work” (p. 1241). She suggested that coherence of courses within programs is one indicator of effectiveness.

A number of researchers have argued that effective professional development starts at the university or college level. Darling-Hammond and Finn (2000), as well as Diaz-Maggioli (2004) and Sparks (2002), reported that measures of teacher preparation and certification are by far the strongest correlates of student achievement in reading and mathematics, both before and after controlling for student poverty and language status. Darling-Hammond (2006a) asserted that to advance knowledge about teaching, to spread good practice, and to enhance equity for children, it is crucial that teacher educators strive to provide strong preparation for teachers. She suggested that using productive strategies for evaluating outcomes is becoming increasingly important for the improvement, and even the survival, of teacher education programs (Darling-Hammond, 2006b, p.120). In contrast to the approach used by Darling-Hammond, Rivkin, Hanushek, and Kain (1998) concluded from their analysis of 400,000 students in 3,000 schools that while class size, teacher education, and teacher experience play a small role, the most important predictor of student achievement is teacher quality. In Ontario, Canada (Leithwood, Louis, Anderson and Wahalstrom (2004) noted that leadership is second only to classroom instruction among school-related factors that contribute to student learning. Taken together, these multiple sources of evidence all conclude that quality teachers are a critical determinant of student achievement.

Ball (2001), Mundry and Loucks-Horsley (1999), and Reeves (2004) identified three organizing themes that emerged from a summary of the research related to effective professional development. These are: a) focus on student learning; b) recognize the needs of adult learners; and c) provide a context of supportive change. Similarly, King and Newmann (2000) contend that for professional development to be effective, teachers must be supported to exercise their individual knowledge, skills and relationships within the professional community to advance the collective work of the school through programs for professional learning. In other words, teachers themselves should have a role in deciding what is effective in and for their own learning and practices.

Cultural Contexts for Effective Professional Development

Various researchers present arguments for either school contexts to attain effective professional development or a system wide context to achieve effective professional development. For example, Brown and Duguid (2000) noted the importance of a situated context and indicated that skills and strategies simply do not transfer well when learned outside a situated context and that information becomes knowledge only through the social process of exchanging ideas with one's colleagues. Similarly, McLaughlin and Talbert (2001) noted that departments and communities matter the most in determining how well teachers perform in the classroom and how satisfied they are professionally. And Sparks (1997) maintained that professional development has been found to be most effective when it is based on student learning goals that reflect the uniqueness of the school whose staff is participating in the professional development.

Rosenholtz (1989) identified two kinds of cultures in school contexts, “learning enriched” and “learning impoverished,” that affect both teacher and student learning. Drawing on Rosenholtz’s work, Bredeson (2003) claimed that schools needed to move from a view of professional development as an add-on that is external to practice to a view of professional development as an integrated approach whereby professional learning is embedded in and linked to classroom practice and student learning. He proposed a new architecture for professional development by articulating six principles that form the building blocks for contemporary professional development design. These principles focus on professional development as: learning, work, expertise, improvement in practice, student learning, and collegial interdependence (pp.7-12).

Other researchers have maintained that, unless the whole system is involved in professional development, improvement in teacher and student learning is minimal (Barber, 2002; Fullan, 2003b; Reeves, 2004). Fuhrman and Malen (1991) contended that the obligation that is part of the reform of teacher professional development lies with districts, which must use policy and data strategically to shape and target local priorities. Paradoxically, professional autonomy and attention to the individual are necessary conditions of strong professional communities (Scribner, Hager & Warne, 2002).

Segiovanni (2000) contended that in schools, leaders and their purposes, followers and their needs, and the unique traditions, rituals, and norms that define a school’s culture comprise a distinctive “lifeworld.” The management decisions and protocols, strategic and tactical actions, policies and procedures, and accountability and assurances comprise the “systems world.” For Segiovanni, the lifeworld is the essence of hope and the systems world is the means by which to achieve hope. Both the lifeworld and the systems

world are important to the individual and organization for a meaningful symbiotic relationship to exist.

The literature confirms that time for reflection and learning are not present in most school settings (Addal-Haqq, 1996; Erdman, 1998; Sparks, 1999). The many sociological, technological, and economic changes that continue to occur in society are not recognized as impacting on teachers' needs for new types of learning (Stoll, 2004; Stoll, Fink & Earl, 2003) nor are they factored into how teachers' time is used.

Alignment of Professional Development Programs with Reforms

Reforms of Education (changes in curricula, student testing, assessment and evaluation) and with it teacher professional development in many countries, and in particular in North America, is grounded in standards which have standardized teachers' practices and left little room for teacher professional judgement. The reforms, teaching standards and performance assessments were meant to serve as a guide for professional development and identify what teachers need to learn; it seems, however, as though they have become not only a tool within the system but constitute the system itself (Ranson, 2003). One of the problems of high school reform that has moved to the top of the educational policy agenda in the United States as well as in provinces in Canada is the number of uncoordinated innovations and policies (Darling-Hammond, 2006a; Glassford, 2005). Fullan (2000) suggested that systems need to become pre-occupied with coherence making. This would mean aligning professional development, learning communities, and program goals and activities.

Historically, England, the United States and Canada have perceived the function of teacher professional development differently. In England, the 1980s were a time of “uninformed prescription” whereby government took control of education and initiated federally-directed curriculum and assessment systems (Barber, 2002). The 1990s tended to be years of “informed prescription” whereby governments still maintained control but now consulted, to some extent at least, and used research to inform their policies. The strategies, however, were tightly orchestrated from the center and the kind of ownership necessary to achieve long lasting change did not exist (Fullan, 2003a, p. 7). The 2000s have seen attempts to focus more on “informed judgement,” that is, educators have been expected to use critical enquiry and research to inform their practices and their professional judgments (Barber, 2002). In its consultation document *Making Good Progress* (2007), in an attempt to improve the rate of progress which children make year by year, The Department for Education and Skills (DfES) in England indicated that ten local authorities, one from each region in England, will pilot teacher training in assessment strategies and pilot an assessment program that complements testing with formative teacher assessment (Johnson, 2007). This project suggests a move toward at least some reliance on teacher judgement.

In the United States in the 1980s teachers were expected to demonstrate research-derived “effective teaching” behaviours in their classes (Griffin, 1999). In its 1996 report *What Matters Most: Teaching for America's Future*, the United States National Commission on Teaching and America's Future called for schools and districts to form linkages with other systems, particularly colleges, in an attempt to improve staff development programs (Darling-Hammond, 1999). The United States *No Child Left*

Behind Act, 2001, among other things, called for stronger accountability for the academic achievement of all children, scientifically based research teaching methods, research-based professional development activities and measurable annual objectives from schools (Darling-Hammond & Rustique-Forrester 2005b). An increased focus scientifically based research suggests less trust in teachers' judgements.

Coulter (1994), Ghosh and Ray (1995), and Gidney (1999) observed that factors such as language, religion, rural spaces, and immigration account to some extent for Canada's distinctive provincial approach to education and teacher professional development. The introduction of teacher testing for new teachers and mandatory teacher professional development for all teachers in provinces such as Alberta, British Columbia and Ontario has moved those provinces closer to the approach the United States has taken towards teacher training and professional development (Glassford, 2005).

The call to bring about coherence by aligning professional development, learning communities, and program goals and activities has met with a number of problems. Hammerness (2006) stated one of the problems is that "there is little research on the nature of coherence and how it might be developed" (p.1241). A second problem is that of determining commonalities to judge whether programs have coherence. Phillips (2002), for example, commented, "There is no research that directly assesses what teachers learn in their pedagogical preparation in relation to student learning or teacher behaviour" (p.38). Phillips asserted further that clinical practice for student teachers varies with 60 days in the provinces of British Columbia, Nova Scotia and Saskatchewan while in Ontario it is 40 days. With such variation, it is difficult to compare and assess teacher professional development programs.

Educational Reforms (standards and accountability movement) have presented problems for schools far greater than problems of coherence. Youngs (2001) noted there were tensions over control of professional development between districts and schools. While Honig (2003) suggested that school district offices needed to recast themselves as supporters of the school's decisions, Firestone, Mangin, Martinez and Polovsky (2003) found schools, in many subject areas, were receiving less support for professional development than prior to the school reforms. With the accountability for raised test scores more time and funds were allocated to mathematics and literacy and less time and funds to the arts.

Tensions within schools have been exacerbated by legislation that separated administrators from their teaching federations. Separation of administrators and teachers in the United States led Murphy (1999) to comment that schools were now run by administrators who knew very little about the core business of schooling and teachers who had almost no understanding of school organization and its relationship to school effectiveness. In Ontario, Canada, mandated teacher testing and teacher professional development that focused on student performance invited conflict between teachers and their administrators (A. Hargreaves, 2003). With the incoherence brought about by the educational reforms focused on accountability in the United States with the *No Child Left Behind* legislation, and in Ontario, Canada with the *Common Sense Revolution*, the disregard for teachers' professional judgements in curriculum and assessment, the paucity of training and learning for those in management roles in the schools (Murphy, Hawley & Young, 2005; Thrupp, 2003; Tucker & Coddling, 2002), and a lack of understanding of educational organization and policy by teachers (Delaney, 2002), one might conclude that

the governments designing educational reforms did not consider teachers' perceptions to be an important part of the implementation process.

Conceptualization of Schools as Learning Communities

As an alternative to the Standards and Accountability movement, some reform advocates and researchers cite participation in *communities of practice* as a prime factor in achieving effective, sustainable professional development systems. For example, Smylie, Allensworth, Greenberg, Harris and Luppescu (2001) indicated that a teacher's community of practice can play both a catalytic and a direct role in the teacher's professional development. That is to say, a supportive community of teachers and their work fosters teacher and student learning. Dufour (2004) emphasized the need to replace teacher isolation with a sense of connectedness and purpose that may very well be the first step in building a learning culture. Lambert (2003) and Darling-Hammond (2001) suggested that for collective learning and enhanced capacity to occur, multiple learning opportunities, for example, (course work, sabbaticals, and activity-based workshops) must be present for teachers.

Instead of being viewed as communities, schools often are seen as organizations with teachers who teach and managers who implement policy, ensure that standards of practice are maintained, and evaluate teacher performance. In such settings, professional development is a way to improve operations, to introduce new directives, to remediate teachers, or "to fix" isolated problems (Pritchard and Marshall 2002). Ingersoll (2003) noted that relative to principals and school district administrators, teachers still have little control over workplace decisions. Teachers, he claimed, are controlled in many ways,

including through official policies and through principals' control of key resources. This dependence can negatively affect their individual learning, their learning with their colleagues, and their sense of self-efficacy. It also can have a negative impact on student learning because teachers are not using their expert knowledge of curriculum, assessment or learning to make decisions.

Elmore (2000), however, characterized large-scale improvement that includes professional development as a *property of organizations* not individuals. He stated, "Experimentation and discovery can be harnessed to social learning by connecting people with new ideas to each other in an environment in which the ideas are subjected to scrutiny, measured against the collective purposes of the organization" (p.25). He further suggested that if formal professional development remains disconnected from the larger learning context, the norms and practices of the collective community, then the system will not improve. From a sociological perspective, though, Gherardi (1999) noted the normative/prescriptive discourse on "organizational learning" and the "learning organization" is often mobilized as a further means of organizational control (p. 117). I am inclined to agree with Gherardi. At the same time, I believe that such contestation is a necessary condition for effective decision-making, and a group or groups are more likely to make good decisions when diverse views are presented and debated.

In contrast to Elmore's arguments, Weick and McDaniel (1989) expressed concern with using an organizational learning model in schools. They stated, "...educational leaders often impose an industrial organizational model on the schools, limiting their [the people in the school's] ability to think creatively" (p. 330). They suggested that schools would be more effective if they were designed as professional organizations, that is,

places where leaders foster a gradual build-up of professional values through professional socialization and at the same time make more explicit efforts to build expertise and knowledge. Moreover, they recommended that professional organizations need to incorporate societal values (improving the human condition, commitment, social responsibility) by giving front-line professionals more control over decisions. For these researchers, “the neutralization of leadership encourages professional development, collegial interaction, and greater assumption of responsibility” (p. 353).

Many change agents and scholars have advocated the notion of a learning community as a preferred model for change (Beck, 1999; Goodson, 1999; Sergiovanni & Starratt, 2002; Wenger, 1998). This conceptualization views schools as communities of practice characterized by shared leadership, holistic learning, and self-assessment. In these communities, professional development is seen as a process of continuous improvement for everyone: teachers, administrators and district personnel (Kelly, 1999).

Hord (1997) and Stoll, Fink and Earl (2003) noted that schools that function as learning communities exhibit the following characteristics: shared values and vision; collective responsibility for pupils’ learning; reflective professional enquiry; collaboration focused on learning; group as well as individual professional learning; openness, networks and partnerships; inclusive membership and mutual trust; and respect and support. These researchers defined an effective professional learning community as having the capacity to promote and sustain the learning of all professionals in the school community with the collaborative purpose of enhancing pupil learning.

Seeking to extend understandings of learning communities, McDonald (2005) found Complex Learning Communities (CLCs) that are comprised not only of learners and

domain experts but also, potentially, of business practitioners and economic developers offer schools opportunities for seeding new knowledge. Examining learning communities through a new lens, McLaughlin and Zarrow (2001) also found it is no longer sensible to limit the work on educational change to internal or even external models of institutional change because the flaw in both of these models is their disconnection to individual projects. For example, a school may offer teachers professional development focused on literacy (reading) so as to change teachers' instructional practices from one of lecturing to one of student participation. The accompanying school board may use literacy as a focal point to emphasize to administrators and teachers in the aforementioned school the need to focus on test taking so as to improve student test scores in reading. These internal and external models of change respectively by the school and school board may have little or no connection to an individual teacher's goal of integrating technology into the mathematics curriculum. Goodson (2001) argued that "increasing attention will need to be paid to the personal missions and purposes which underpin commitment to the change process" (p.45). The increased attention to the term "learning community" with the expectation of achieving professional sustainable systems but without creating the space and conditions where teachers can engage in conversations in small groups about the cognitive, social and emotional dimensions of student and teacher learning and their relationships fails to create community and fails to address teachers as professional workers and leaders in their communities.

Leadership and Implementation of Professional Development

One of the main goals of professional development is to build leadership and expertise within the system. Stakeholders involved in building leadership through the process of professional development include researchers, policymakers, universities, school administrators, designers of programs, school boards, federations, teachers, and partnerships among these groups. As these groups work to implement educational reforms and are involved in teacher professional development, they must overcome barriers and seek ways to facilitate efforts to help teachers' improve their practices and improve student outcomes.

Traditionally universities have been the locus of teacher training and have set the foundation for subsequent growth in teacher learning. Putman and Borko (2000) indicated that "teacher educators have long struggled with how to create learning experiences powerful enough to transform teachers' classroom practice" (pp.5-6). Leithwood, Jantzi and Steinbach (2004) suggested universities have a new role, to help teachers identify the big and difficult issues in education and encourage their students to grapple seriously with those issues in ways that build understanding. This new role for universities also needs to include closer relationships with schools to follow-up with former students and learn from them how to improve or generate new learning environments, materials, and opportunities.

The principal or school administrator's role in the design and implementation of professional development may be understood as one of helping to change the culture of the school by building relationships (Barth, 1990), by building school capacity of teachers and administrators to bring about a learning community (Lambert, 2003), and by

creating the conditions for promoting teachers as leaders (Leithwood, Jantzi et al., 2004; Spillane & Timperley, 2004). In addition, the school leader's role is to develop and maintain a professional level in the staff that he/she supervises by focusing on the development of a community of learners. Another important part of the principal's role is working within a legal framework for making effective day-to-day decisions.

Unfortunately, the allocation of time and funds for professional development are often outside of the school leader's immediate control; the school leader must rely on the school district for most of the available resources. Nevertheless, noted Roher and Wormwell (2000), at the core of the principal's role is working with teachers to shape the school as a workplace with shared goals, teacher learning opportunities, and teacher commitment to student learning.

Designers and providers of professional development programs play an important role in the implementation process. They need to consider ways to reduce teacher isolation and enhance opportunities for teacher learning, both inside and outside the classroom, and they must find ways of conducting staff and program evaluations that are consistent with teacher learning. Garmston and Wellman (1998) indicated that a critical step in redesigning and creating better learning environments for educators as well as students is for providers to use a systems thinking approach, that is, one that examines and aims to understand the linkages and interactions between elements that comprise the whole system of schools and school boards and to legitimate the need of each in the professional development of teachers.

School boards also can play a vital role in providing teachers with professional development opportunities to acquire new knowledge and skills (Hess, 1999). The boards

play a critical role in setting the context for professional development activities and can establish a vision and focus for professional development by aligning professional development activities with standards, assessments, and other reform efforts in the district (Spillane & Thompson, 1997). Spillane (2002) argued that in order to have a greater understanding of the learning that is required in the schools, school board personnel should be engaged in professional development. Such engagement by board personnel in professional development could well lead to districts enhancing coherence by linking schools, state/provincial policies, and teacher federation demands.

Naylor (1997) confirmed reports that in parts of Canada, teacher federations have traditionally reacted to initiatives from governments or school boards rather than initiated inquiry into educational issues that might influence the implementation of educational change. By being predictably reactive, teacher federations opened themselves to the criticism that they are only negative forces, critics of educational innovation with their own interests to protect, and teacher-centered rather than student-centered. There are, of course, exceptions to such criticism of federations, for example, the case of the Ontario Secondary School Teachers Federation (OSSTF) and its reliance on Dr. Alan King's work to push the research process forward dates back to the 1988 with his report *The Teaching Experience*. More recent work includes King's *Pathway to Success*, 2003 and *Double Cohort* reports, 2002 and 2004.

Bascia, Rodrigue, and Moore (2004) outlined the potential for more extensive partnerships among faculties of education, teacher federations, school districts, and parents. They argued that there exists a need for the involvement of multiple educational organizations and such groups must work through and beyond narrow, dichotomous

thinking to develop new understandings and new roles. Such educational partnerships could help ensure the continuous improvement of teaching (p. 125).

Teachers often feel powerless concerning their own professional development, particularly in view of the barrage of educational reforms (Ball, 2001; Walsh, 2006). With the many stakeholders involved in deciding professional development for teachers, there is either a resignation to what is or a resistance to the reforms that infringe on what was previously teacher and school expertise. Many teachers despite perceived barriers want to have a decision making role in their own professional development. Depending upon characteristics such as personality, motivation, stage of career, and previous experiences, some teachers will have a greater sense of positive self efficacy than other teachers; this greater self-efficacy will lead them to take action and persist in the effort required to bring about successful implementation (Bandura, 1997; Fullan & Stiegelbauer, 1991). Kelchtermans and Ballet (2002) argued that teacher learning takes place in a context in which issues of power, influence, and control can play an important part in teacher growth and development. Teachers' choices, values, interests, and motives, as well as individual career stories, intertwined as they are with the history of the school, play a significant role in determining the implementation of professional development and reforms (Blase, 1991).

It is important to know the supports and barriers that can facilitate the implementation of professional development. Leithwood and Reihl (2002), Little (2003), and Fullan and Stiegelbauer (1991) maintained that, prior to and throughout the design and implementation process for new professional development programs, issues such as the need for professional development and clarity about goals and means, as well as the

quality and practicality of the reform itself, must be addressed in order for effective implementation to occur and to be sustained. Other researchers contended that adequate supports, a sense of community, coordinating policy levers, clear communications, collaboration among the various sectors of the system, the involvement of teachers in research, the use of technology, and a focus on student learning are all key factors in facilitating the implementation of professional development.

Showers, Murphy, and Joyce (1996), in attempting to diagnose the learning needs of teachers in three schools, designed models of cooperative learning, concept attainment, and synectics, that is, an approach to solving problems based on the creative thinking of a group of people from different areas of expertise and knowledge. The researchers' models supplemented teachers' existing teaching strategies, rather than replaced them. What the researchers found was that an intensive workshop model was sufficient to introduce new strategies to teachers but if additional supports were not present, less than ten percent of the teachers persisted long enough to integrate the new skills into their pedagogical repertoire. The researchers maintained that proficiency requires twenty to thirty trials of using new skills under classroom conditions. Furthermore, they suggested that when teachers used the new methods immediately and frequently and organized themselves into study teams for sharing, observation and peer coaching, the results were notable: at the end of the first year, 88 percent of the teachers were using the new strategies regularly and effectively. Supovitz and Turner (2000) had similar findings but suggested teachers need at least eighty hours of intensive professional development before they change their classroom behaviours and practices significantly.

Cohen and Hill (2001), in examining mathematics reforms in California, found that teachers who took curricula-related professional development, provided that it was intensive enough and had enough follow-up and support, changed their practice in ways that were envisioned by the reforms and also had gains in student achievement that the other teachers engaged in other kinds of professional development did not have. These researchers asserted that success in implementing reforms hinges on coordinating three major policy levers: assessment, curriculum, and teacher learning.

Barriers to implementing professional development seem at times to outweigh the supports. One of the main obstacles to implementation is that governments, school districts and professional development providers often do not communicate clearly the rationale for change and the direction in which schools are expected to move. Nor do they combine “top-down” and “bottom-up” strategies with a focus on developing teacher capacity with support. The likelihood of people reacting favourably to change and assisting with it will be enhanced if time is taken to provide a basis of learning and understanding about the change (Lick, 2005, p. 90). Darling-Hammond (2001), Fullan (2003a), Leithwood (2003), and Little (1999) have suggested that when the focus of change is solely on mandates to change and monitoring of the change, implementation results are disappointing. Levin (1998) rebuked governments for adopting policies (such as those concerned with school councils and testing) without making sufficient effort to learn from others’ experiences before developing their own, often similar, educational reforms. He referred to the state of policy-making in various countries and the provinces in Canada as a “policy epidemic” and suggested that there may be ways of strengthening

the public mind on education to increase resistance to superficial but seemingly attractive government policies (p. 136).

Other barriers associated with the implementation of professional development include one-size-fits-all thinking, cost of professional development, resistance, leadership shortcomings, and teacher training, as well as a deficit in teacher knowledge of policy. Program planners often use a “one size fits all” approach. This may unite teachers around a shared vision, but there is little choice and autonomy in, for example, instructional decisions (Randi & Zeichner, 2004). Or planners may decree a “totally individualized” approach, something that Elmore (2002) criticized as being fragmented and by extension not serving the school, school districts or reforms.

Inadequate funding is another barrier to teacher professional development. Often governments introduce reforms but at the same time do not invest adequately in teacher professional development. For example, in Ontario, Canada, there are 116,000 full-time and 20,000 part-time and occasional teachers in publicly funded schools. They have instructional responsibility for just fewer than two million students. In 2004, the Ontario Ministry of Education spent an average of \$319 per employee on training. By comparison, the average spending on training across all sectors of the economy amounted to \$776 per employee or 1.6 per cent of the payroll (Ontario Ministry of Education, 2004b, p.7).

Traditionally, resistance to change was viewed in a negative light and as something to avoid or eliminate. Schein (1999), however, suggested that it is important to understand that resistance to change is to be expected as a normal phenomenon and that new learning only takes place if the learner is made to feel psychologically secure. Popkewitz,

Tabachnick and Wehlage (1982) and Goodson (2001) found that the capacity of internal agents to ignore externally mandated change is substantial and, with low staff investment by a school board, change can remain more symbolic than substantive. Similarly, Peterson, McCarthy and Elmore (1996) discovered that even when teachers were willing to learn new methods, they often applied them in a superficial or inconsistent way, offering the appearance but not the substance of real change. The researchers cautioned that even when professional learning is carefully planned, its implementation may not follow a smooth or even a successful course. Thus, professional development of teachers, while being central to reform, needs to go further than delivery models comprised of courses, workshops or other such events (Knight, 2002). What motivates teachers is not mandated change but making a difference in the lives of the pupils they teach (Day, 1999).

A growing body of research has suggested that those who resist implementation of reforms often have something important to say concerning the ideological fit between the reform and the work culture (Maurer, 1996). In other words, resisters have a role to play in drawing attention to aspects of change that are in conflict with or contrary to principles, mission and purpose of the school or organization. Waddell and Sohal (1998), in examining the concept of resistance, warned that if pacesetters and coercers ignore or fail to listen to the concerns of resisters, the reform is placed in jeopardy. They also noted that although research has established a solid understanding of resistance and the benefits that can accrue to an organization through its proper utilization, leaders often continue to use the adversarial approach to implementing change by forcing teachers to comply. Fullan (2000) noted that where large-scale reforms failed to incorporate the teacher's

sense of passion, organizations faced problems of sustainability of those reforms. A study by Talbert (2002) also illustrated well the rhetoric and vested interests that figured prominently in university leaders and parents' defeating mathematics reforms in California. Her analysis brings into focus the dual problems for high school teaching reform: changing professional practice and engaging political opposition to educational change. According to Lick and Kaufman (2000), the majority of change initiatives are only partially successful because leaders fail to reframe their thinking relative to major change, and they fail to provide a detailed, disciplined plan, including appropriate incentives, for identifying and then completing the major change (pp. 25-26)

Implementation also is sometimes unsuccessful because teachers' learning needs are not met. For example, a study conducted by Ryan and Joong (2005) focused on the new curriculum, student evaluation, teaching strategies, and inclusion policies as schools moved from the *Ontario Schools, Intermediate and Senior Divisions (Grades 7-12/OACs): Program and Diploma Requirements, revised edition, 1989 (OSIS) to Grades 9-12: Program and Diploma Requirements, 1999 (OSS)*. The researchers mailed out questionnaires to teachers in randomly selected and coded sample secondary schools throughout Ontario. The researchers believed a 'work to rule' campaign by teachers that coincided with the time of the study negatively affected the return rate which was 63%. The key findings, as they pertain to teacher perspectives of professional development and its impact on their practices, were: 69% of the respondents claimed they did not receive in-service training for their Ontario secondary school (OSS) new curriculum courses and a majority claimed they did not receive adequate support materials; 73% of the respondents identified the need for training in assessment strategies; 40% of the

respondents identified technology as an area in which they needed increased levels of in-service training. The percentages of course hours for all respondents wherein they used a specific strategy were: whole class instruction 44.6%, group work/co-operative learning 14.8%, and individualized instruction 12.5%.

Ryan and Joong (2005) cited problems with the implementation of high school reforms and the inadequate support and resources for teachers. From their research, they concluded that school level factors that make a difference in successful implementation of school reforms are the creation and attainment of a vision, the provision of necessary resources and professional development, and the establishment of a climate that is supportive of change. The Ontario Secondary School Teachers Federation (OSSTF), (2002), Earl et al. (2003), King (2002), Lasky, Moore, and Sutherland (2001), and Majhanovich (2002) had similar findings to those of Ryan and Joong (2005).

To reduce the problems that impede the implementation of professional development, planners need to address the barriers associated with implementation, be aware of unintended consequences such as teacher burn out, re-examine resistance through a new lens, and focus on developing teacher leadership (Fullan, 2003a; Little, 1999; Sparks & Hirsh, 1997).

Tools for Assessing the Impact of Professional Development

Questions arise as to what purpose and what role teachers should play in this assessment? As investments in professional development increase, policymakers are increasingly asked for evidence about the effects of professional development not only on classroom practices but also on student learning outcomes (Darling-Hammond &

Bradsford, 2005; Noyce, 2006; Whitehurst, 2002). Educators also are asked to redefine the terms “professional development” and “practice” with respect to standards.

Elmore (2002) asserted that teachers have standards of practice and there are standards for both curricula and assessment. There is, therefore, a greater expectation that staff developers will be able to state explicitly what new knowledge and skills educators will learn, how this knowledge will be manifested in their professional practice, and what specific activities will lead to this learning (p. 8). The state of the research on the impact of professional development is summarized by Wilson and Berne (1999), who noted, “across this incoherent and cobbled-together nonsystem, structured and unstructured, formal and informal, we have little sense...of what exactly it is that teachers learn and by what mechanisms that learning takes place”(p.174).

The literature provides three plausible reasons for our limited present understanding of the impact of professional development on teacher practices or student achievement. First, teacher knowledge is said to be tacit. Eraut (2000) argued that teachers need to make tacit knowledge more explicit and that doing so would improve the quality of a person’s or a team’s performance. He suggested that some linkage is necessary between actions and outcomes if one is to take responsibility for one’s actions. Guskey (2000a) also argued that educators need to see that evaluating professional development could lead to more effective programs that would result in a better learning environment.

A second reason for not understanding the impact of professional development is reform overload and lack of resources for teachers. Majhanovich (2002) observed that many teachers are exhausted with having to cope with so many reforms at once. Leithwood, Steinbach, and Jantzi (2002) claimed that without resources, such as

computer labs and in-service training, teachers struggle to bring about even a portion of the planned government changes in pedagogy and practices as outlined in current reforms. It follows that in such a work environment, assessing the impact of the reforms on teacher practices and student achievement would not constitute a high priority.

The third reason why the impact of professional development on practice is not well understood is because there is a considerable imbalance between the amounts of funding given to the development of classroom measures of student learning as compared to the resources channeled into large-scale assessments (Stiggins, 2002). A redress in the imbalance of funding could result in more classroom-based assessments which, when linked to the instructional goals of teachers, would provide a fuller and more detailed picture of student achievement (Thibault & Hinds, 2002, p.14).

Little systematic research has been conducted on the effects of professional development on improvement in teaching and on student outcomes (Garet, Porter, Desimone, & Birman, 2001). Killion (2003) noted that for many years the only evaluation of professional development was the traditional end-of-program “smiley” sheet on which participants reported their degree of satisfaction with the program, presenter, and facilities. Belzer (2003) and Lowden (2005) suggested that the “smiley” many be gone from many workshops but current assessments focus on the skills of the presenter instead of focusing on participants’ increased levels of knowledge and their ability to apply what they have learned from the professional development sessions.

Despite these criticisms, there are a number of studies that provide some evidence of the impact of professional development on teachers’ practices. It should be noted at the outset that the studies used different methodologies and the scales (large/small) of the

studies are different mainly because there is far less research on the 9-12 grade levels than on the K-8 grade levels.

The two study descriptions that follow illustrate the relationship researchers have found between professional development and its effects on practice. The first study, a three-year longitudinal study conducted by Desimone, Porter, Garet et al. (2002b), focused on mathematics and science. The researchers used a national (United States) sample in 30 schools, three schools (one elementary, one middle school, and one high school) in each of 10 case-study districts, at three points in time (during the 1996-97, 1997-98, and 1998-99 school years). The longitudinal data enabled the researchers to document teaching practices of 207 teachers before and after professional development activities and to examine the extent to which changes in teaching practices could be attributed to participation in professional development activities. The report concluded that four out of five professional development models used by the schools were traditional, transmission-based and lasted for short durations. The researchers noted six key features of professional development were effective in improving teaching practices. Three of the features are structural: study groups or teacher networks in place of traditional workshops or conferences, increased duration, and collective participation from the same school, department or grade. The other three features are active learning opportunities, content focus on mathematics and science, and coherence, that is, incorporating experiences that are consistent with teachers' goals and aligned with state standards and assessments. Based on survey data, the researchers also found that on average, teachers do not experience high quality professional development and caution that the provision of high quality programs of professional development by schools and

districts may not completely solve the problem of the variation in the quality of professional development, since participation remains primarily the decision of individual teachers. What the researchers did suggest was that ways needed to be found to have more teachers engage in professional development that is known to produce results.

In the second study, Ingvarson, Meiers and Beavis (2005) gathered data from four separate previous studies wherein a total of 3250 teachers had participated in over eighty different professional development programs. Participants in each of those programs were asked to complete a survey wherein they described the impact of the programs on their knowledge, practice, sense of efficacy, and student learning. The survey also asked participants about the impact of the programs on the nature and extent of collaboration among colleagues in their schools. Across the four studies, the researchers found consistent significant direct effects of content focus, active learning, and follow-up on knowledge and professional community. Impact on efficacy was strongly related to the perceived impact on teacher's practice and student learning outcomes. Significantly, the researchers noted that feedback was rarely incorporated into program design. In addition, they stated that while they had some confidence in self-reports of the effects of professional development programs on teacher knowledge and practice, they were less confident in teacher self-reports of the impact of these programs on student outcomes. Their skepticism stemmed from the data they collected from students, which did not match teachers' reports of their implementation of new learning. These two studies indicate that in terms of the relationship of professional development and its effects, teachers are not experiencing high quality professional development, feedback is not incorporated into professional development programs, and other sources of information,

for example, correlational, causal-comparative, experimental, and case studies could be used to verify results in the studies.

There are instruments to measure the impact of professional development on practice. Evaluating the efficacy of professional development opportunities, and validating their impact, requires a multidimensional approach (Belzer, 2003; Lewis & Shaha, 2003). Possible approaches included: using balanced metrics methodology, combining quantitative and qualitative data sources, using a feedback loop, and teachers' narratives.

Shaha, Lewis, O'Donnell and Brown (2004) suggested that the way to substantiate the impact of programs on teacher and student learning is to use good design features and a generalizable, balanced metrics methodology. They explained that learning impacts, attitudinal impacts, and resources impacts need to be incorporated with levels of impact—no impact, little impact, some impact, favorable impact, and great impact—on teachers and students. Such tools, whether adapted from others' work or custom-designed, can enable educators to become data-driven decision makers.

Whitehurst (2002) and Coe (2002) proposed a blending of research methodologies to measure the impact of professional development. They argued that randomized testing, advocated in some policy initiatives as a mechanism for collecting data on teacher practices and student learning does not lend itself well to the classroom. Additional data sources, such as large annual surveys combined with longitudinal school-level case studies, periodic review of test scores and classroom level analyses, should also be used to contribute to the improvement of professional development (McPartland & Will, 2000).

Eisenhart (2006) advocated a “postpositivist perspective” on science and used the term “science plus” for the historical, theoretical, critical, and ethical scholarship that many members of the education research community would not call science but deem essential to making good decisions about teaching and teacher education. According to Willinsky (2001), the critical components for such a blending of experimental and qualitative research are a public gateway to educational research, a sophisticated indexing system that enables research to be linked to data sets and classroom practices and programs, and supportive educational resources. Rather than regarding evidence-based education as a way of rationalizing behavior and governing the practices of the teaching profession, Willinsky (2001) recommended that educators should consult a variety of sources before making educational decisions.

Loucks-Horsley, Hewson, Love and Stiles (1998) found that indicators can play a role in strategic planning, needs-assessments of teachers, and the quality and impact of professional development. They suggested for continuous improvement to occur in professional development, school districts needed a feedback loop. This means not only schools communicating with districts but also districts communicating with schools and teachers about district goals, standards, and needs-assessment and evaluation data. This type of information could help schools integrate their activities with district goals and standards (Newmann, King & Rigdon, 1997).

There are a number of instruments now available that focus on various aspects of evaluating training and professional development programs. Among these is Kirkpatrick’s evaluation framework, developed in 1959, which provides a sequential framework for evaluation using the levels of reaction, learning, transfer, and results. In

1998, Kirkpatrick added return on investment (ROI) as a fifth characteristic to his model. Kirkpatrick's model, although widely applied in the business world, has seen only limited use in education because it lacks explanatory power. It is helpful in addressing a broad range of “what” questions but falls short when it comes to explaining “why” (Holton, 1996).

Building on Kirkpatrick's model, Guskey (2005) suggested five critical levels of professional development evaluation used to gauge effectiveness: 1) participant reactions; 2) participant learning; 3) organizational support and change; 4) participant use of new knowledge and skills; and 5) student learning outcomes. He suggested that most evaluations of professional development today focus on level 1 or level 2. Effective professional development uses evaluation to ensure that each activity is meeting the needs of the participants and providing them with new learning experiences. Presenters need to build evaluation into the professional development program during the planning process before the actual activities begin.

Killion (2005) reported on a two-year initiative of the National Staff Development Council (NSDC) in the United States that set out to find ways to measure the impact of professional development on teacher behaviour and student learning. She found that ongoing sessions focusing on learning, collaboration, and application, accompanied by school and classroom-based support, all over an ample time period, are necessary to incorporate new behaviours fully into teachers' repertoires. Using a theory of change and a logic model, the Council, headed by Killion, developed an eight-step evaluation process that encourages evaluators to build pathways based on evidence to measure the impact of professional development on teachers' classroom behaviors and student learning. The

eight steps are: 1) assess the program for indicators of success; 2) ask questions about results rather than services; 3) construct an evaluation framework; 4) collect data; 5) organize and analyze data; 6) interpret data; 7) report findings, and 8) reflect on strengths, weaknesses and next steps. These steps reflect the process used in action research for well over two decades.

Siegel and Yates (2007) proposed changing the focus of assessments from measuring the presenters' skills to measuring participants' knowledge and application of skills. They recommended improving the evaluation of professional development presentations by using retrospective pre-testing of existing knowledge and self-efficacy. Despite the focus in the literature on teacher professional development and its relationship to student achievement, Killion's (2005) study cites that 90% of professional development evaluation contains no student data.

Teachers' Self-Assessment of Their Professional Development

Bolam (2000) suggested that there are serious gaps in the research knowledge base concerning professional development and a considerable void when it comes to listening to the teachers themselves and what they have to say about their own and their students' learning. Similarly, Cochran-Smith and Lytle (1999) suggested that schools and districts need to know how and why things are the way they are in the area of professional development before they attempt to change or improve them. They argued that teachers who take on the roles of consultants, curriculum developers, analyst, activists, and school leaders can and should articulate what and how things need to change. D. Hargreaves (1997) argued that teachers can and should play a more central role in setting the agenda

for research and in carrying it out. Soulsby and Swain (2003) asserted that giving teachers the opportunity to carry out their own research into specific subject areas is vital to stimulate intellectual interest. They noted that while it might be expedient for schools and governments to tailor professional development according to perceived short-term needs, this is not a sustainable position. Continuing professional development should be seen as a long-term investment in developing teachers' skills and professionalism.

Political policy generally does not reflect teacher voices and those voices are an important element missing from the bureaucratic agenda for professional development. Teachers have little input into the design and direction of their own development and the analysis of how professional development affects their practice (Delaney, 2002). Lieberman (1995) argued that teachers have been excluded from the process both of planning reforms and the professional development opportunities necessary to implement the reforms. They also have not been included in the process of assessing their effects of the reforms on their practices. In fact, "teachers are frequently the targets of reform, but exert relatively little control over their professional development" (Sykes 1996, p. 465). These scenarios cannot help but affect how teachers perceive professional development and the outcomes that may result from professional development.

To offset the lack of control over and input into policy, Cochran-Smith (2005b) called on university Faculties of Education to help change the terms of the debate about the purpose of schooling and teacher education in society. She noted that while the new outcomes-focus of teacher education is positive and encouraging, the minimal preparation provided by some programs that are an alternate to college- and university-based teacher education leaves teachers unprepared for the classroom. Content

knowledge alone, she maintained, is insufficient to merit the label of “highly qualified.” Thus, the whole doctrine of school outcomes narrowly defined as test scores needs to be challenged. She encouraged teacher educators to “strengthen the research base” across teacher-education programs, classroom practice, and student learning.

Teachers themselves need to develop the capacity to appraise their actions, evaluate their work, anticipate control consequences, incorporate new theory and research into practice, and possess the skills and understandings needed to explain their work to other teachers and to students and their parents. Fenstermacher (1992) contended that these reflective capacities are the outcome of sustained and rigorous study and of dialogue and exchange with master teacher educators. In many if not most schools, however, provisions are not made for such study, reflection or dialogue to occur.

A precondition for doing anything to strengthen practice and improve a school is establishing a culture in which professionals talk about practice, share their craft knowledge, and observe and support the success of one another. Without a collegial culture in place, no meaningful improvement, no staff or curriculum development, no teacher leadership, no student appraisal, no team teaching, no parent involvement, and no sustained change is possible (Barth, 2006). D. Hargreaves (2003) found that systems cannot change fast enough to become truly transformed and that network innovation should be the key idea for transforming schools. He contended that by trusting teachers to develop their own improvements to practice and linking schools into small networks, knowledge of what works can by-pass the centre and flow from teacher to teacher and school to school, thereby triggering a transformation in learning at the teaching level. Similarly, Ross and Bruce (2007) noted another strategy whose time has come, stating

that teacher “self-assessment can be a powerful technique for improving achievement” (p.146). They found evidence that teacher self-assessment contributed to a teacher’s ability to recognize mastery experiences, to find gaps between desired and actual practices, to communicate with peers, and to improve in-service training when the strategy of self-assessment was combined with other professional growth strategies.

This literature review identified some of the current moral, cultural and socio-political perspectives surrounding the purposes of teacher professional development and its impact on teachers’ practices. It suggested also that the characteristics that influence the effectiveness of professional development are multiple and complex.

The dynamic nature and multiple interpretations of professional development make any analysis of professional development as a homogenous concept difficult. This literature review indicated that the democratic, transformative view of professional development promoted in much of the recent literature, while reflected in many government documents related to teacher professional development, is in reality prescriptive professional development. We know little about what teachers learn because teachers’ comments are not valued as professional judgements. What is missing from the discussion on assessment and evaluation of professional development and that needs to be addressed is how teachers assess and evaluate their own professional development and the need for mechanisms that will encourage them to contribute to generating knowledge in this field. Because there is evidence that there is a void in knowing what teachers think about professional development and its impact on their learning and student learning, and because there is evidence that teachers’ understandings of their own and student learning can add to the knowledge-base needed to bring about improvements in learning and

achievement, it follows that teachers' views must come to the forefront of research so that their views can inform the field of research and broaden the discussion that has become altogether too narrowly focused on student achievement.

As a former teacher, vice-principal, and school principal with over 30 years experience at all teaching and supervisory levels, including K- OAC and community college, in two provincial school systems in Canada and as a coordinator of action research for two school boards, I have good knowledge and understanding of the issues facing teachers, administrators, universities, and policy-makers as they try to implement educational reforms that require teachers to change their practices. As a retired school principal, I now have the time to read, research, reflect and write about what teachers and other educators have to say on issues that affect their work. By inviting teachers to be part of the discourse not only are we reflecting values of democratic participation but we are also acknowledging teachers as key agents in their own and in student learning. With more than a quarter of a million full-time teachers working in elementary and secondary schools in Canada, having an enrollment of more than 126, 000 teachers and 10, 000 new teachers every year, professional development, as an area of study, demands exploration, discovery, and development.

CHAPTER 3: METHODOLOGY

Teacher Professional Development and Its Impact on Practices

This chapter provides the rationale for using a qualitative-inquiry research approach and discusses why a case study design, together with ethnographic methods, best meets the purpose and objectives of this study. It outlines the research methodology used for the study and discusses the design of the study and ways of achieving reliability and validity in qualitative research. It provides details of the site selection, a profile of the study participants, an outline of the instruments used to obtain data, and discusses the modes of analysis.

The methodology used for this study was derived from two bodies of literature: first, the theory of qualitative research as presented primarily in the works of Bryman (2001), Creswell (2003), and Lincoln and Guba (1985); and second, the qualitative methodology as summarized by Auerbach and Silverstein (2003), and Wolcott (1999).

Johnson and Christensen (2004) lay out, in diagram form, different paths that researchers can take to address either naturalistic inquiry that seeks to understand phenomena in context-specific settings or to address positivist inquiry that seeks to test hypothetical generalizations (see Figure 2). Patton (1990) argued it is not necessary to pit quantitative and qualitative paradigms against one another in a competing stance. He advocated a “paradigm of choice” that seeks “methodological appropriateness as the primary criterion for judging methodology quality.” This choice allows for a “situational responsiveness” that strict adherence to one paradigm or another will not (p.39). Patton further suggested that educators have to rise to the challenge to find and use appropriate techniques that address the significant questions facing their field.

Rationale for Qualitative Inquiry Research

Qualitative methods can be used within case study designs to address many practical and policy issues that affect the lives of professionals, particularly where those questions are concerned with how and why events take a particular course.

A qualitative design was chosen for this study because I was seeking to understand professional development and its impact on respective practices by means of the perspectives of teachers and administrators in one Ontario high school. In line with Bryman's comment that "choices of research strategy, design, or method have to be dovetailed with the specific question being investigated" (p. 24), my research focus and questions helped determine the type of methodological decisions and strategies that were employed in this study.

Creswell (2003) suggested that qualitative research is an inquiry approach useful for exploring and understanding a central phenomenon. Schwandt (2000) noted that "the qualitative inquiry movement is built on a profound concern with understanding what other human beings are doing or saying" (p.200). And Bryman (2001) indicated that a researcher's disposition, consideration for the connection between theory and research, and epistemological and ontological concerns also play a critical role in determining whether to employ a qualitative or a quantitative approach for a study or thesis (p. 21).

Like Schutz (1967), I believe that the objects of social science, people, are capable of attributing meaning to their environments. A qualitative approach thus fits well with my orientation, which is further aligned with the notion that "reality and truth [are] multi-layered, interactive, and a shared social experience rather than being external to social

actors” (McMillan & Schumacher, 1989, p. 264). This study examined the shared social experiences of professional development in a single high school.

Case Study Design

A case study may be defined as “the in-depth study of instances of a phenomenon in its natural setting and from the perspective of the participants involved in the phenomenon” (Gall, Borg, & Gall, 1996, p. 754). By focusing on a single phenomenon in a bounded system, that is, teacher professional development and its impact on professional practices, in a single school, I aimed to uncover the discernible interaction of factors characteristic of professional development and thereby to capture various nuances and patterns by using holistic descriptions and explanations.

One advantage of using the case study design is that “problems and programs can be examined to bring about understanding that in turn can affect and perhaps even improve practice” (Merriam, 1998, p. 41). Moreover, the scientific benefit of the case study methodology lies in its ability to open the way for discoveries (Shaughnessy & Zechmeister, 2000); case studies can easily serve as a source for insights and even hypotheses that may be pursued in subsequent studies (Berg, 2004, p. 285).

A case study is not a data gathering technique but a methodological approach that can incorporate a number of data gathering measures. In the present study, the data gathering measures included single audio taped interviews with 20 teachers and three administrators, follow-up non-taped interviews, my observations, and the use of school and teacher artifacts and documents, including: school web site postings, the school’s

mission statement, the school's strategic plan, the annual school survey, and literature in the school pertaining to professional development.

In this instance, the case study design was appropriate for dealing with the complexity and particular nature of the case (that is, a high school) in question (Lincoln and Guba, 1985) and "describing an intervention," (professional development) in the real life context in which it occurred (Yin 1994, p. 15). This study summoned teachers and administrators to provide their perspectives on professional development and its impact on their respective practices in order to ensure rich, detailed, and in-depth information.

The five component elements used for this case design were as follows: 1) the study questions; 2) the theoretical framework; 3) units of analysis; 4) ethnographic methods, and 5) criteria for interpreting the findings.

Study Questions

The questions for this study were constructed in such a way as to explore teachers' perceptions of professional development. The study questions were as follows:

- How does a sample of high school teachers and administrators understand the definition and function of professional development?
- How does existing design and implementation of professional development contribute to teachers' respective classroom practices?
- What goals and aspirations do teachers in the school's study site have for professional development and how might those goals and aspirations contribute to teachers' practices?

- Are the school board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with goals and aspirations held by the teachers in the study? (school board here refers to the district school board of which the school study site is a part)

Theoretical Framework

The foundational theoretical framework used to orient this study relied on the works of Bandura (1977, 1994, 2001, 2002), Knowles (1973,1980), Knowles, Holton and Swanson (1998), Sergiovanni (1997, 2000, 2002), and Sergiovanni and Starratt (2002). This framework is built on the principles of adult learning, the theories of self-efficacy, collective-efficacy, and of supervision for renewal. The framework has the potential to set parameters for professional development and help determine its impact on teachers' practices.

Units of Analysis

The units of analysis for this study were the perspectives of 20 teachers from a range of subject areas and grade levels and three administrators in one high school in Ontario. Using the context of the one high school, information on the perspectives of participants from that specific environment, and a review of documents associated with professional development in that environment all gained by my being in the school five days a week over a period of seven months, allowed me to get to know intimately the culture of the school. This knowledge, in turn, provided rich data on which to base detailed descriptions and develop significant insights.

Ethnographic Methods

Wolcott (1999) defined ethnography as the science of cultural description. He suggested to obtain this cultural description it was necessary for the researcher to be in the midst of the phenomenon (in this case, teacher professional development) and to examine it from the participants' perspectives and represent their observations and interview responses. The goal in using both the strategies of observation and of interviews is to obtain a holistic view of the phenomenon and then to study certain aspects in depth (McMillan & Schumacher, 1989). Pettigrew (1997) suggested that one of the chief reasons for focusing on descriptive details in a study over a period of time is that other researchers and persons interested in ethnographic studies can come to understand the behaviours of the participants in the study (p. 338). However, as Genzuck (2003) suggested, the validity and meaningfulness of the results obtained depend directly on the observer's skill, discipline, and perspective. This is both the strength and weakness of observational methods.

A number of factors need to come together to give the interview its unique character. For example, Rubin and Rubin (1995) emphasized that meaning can be derived through "the art of hearing the data." Denzin and Lincoln (1994) noted the need for the qualitative researcher "to make sense of, or interpret, phenomena in terms of the meanings people bring to them." Bryman (2001) maintained that the written output of interviews and observations is a distinctive characteristic of ethnography.

To obtain the "thick description," that is, rich details of the phenomenon under study that Geertz (1973) called for in ethnographic studies, I relied on teachers' accounts of their personal and professional histories and participated with them in staff, department,

and curriculum meetings and workshops. I also situated myself in locations in the school where numbers of teachers gathered. In the course of various encounters, I noted the participants' attitudes and views and how they perceived the settings in which professional development took place

Use of open-ended interview questions provided teachers and administrative staff with an opportunity to make explicit how professional development may have influenced their respective practices, thus providing multiple sources of data. The interviews in particular were useful as a source for a narrative that more fully described professional development experiences from the participants' perspectives. Data were also collected from other sources (see Table 4). Artifacts, such as the staff handbook, the school mission statement and strategic plan, as well as the school conference site, proved to be invaluable in assessing the everyday community life at the school under study.

Researcher's Position

I chose a constructivist view of learning to carry out the inquiry and to analyze the data because constructivism allows one to "share the goal of understanding the complex world of the lived experiences from the point of view of those who lived it" (Schwandt, 1994, p. 118). Also, within the constructivist paradigm, realities exist in the form of multiple, intangible mental constructions that are socially and experientially based and local and specific (Guba & Lincoln, 1994). A constructivist view was a suitable approach for this inquiry because it provided me with the opportunity to be sensitive to individual differences and to construct knowledge with the participants.

In keeping with the methodological stance of a constructivist paradigm, the aim of the proposed inquiry was to understand the participants' experiences. This process had two

aspects: 1) depicting the teachers' constructions of their experiences with professional development as accurately as possible and 2) comparing and contrasting teachers' constructions, and including the inquirer's constructions so that each participant was able to confront and come to terms with the overall core findings of the study. I took the ontological and epistemological stance that teacher professional development was subjectively and socially constructed and used frequent and lengthy interactions with the participants to access their knowledge about professional development and its impact on their practices.

The following subsections provide additional details of the process: site selection, participants, instruments and procedures used in the study, and data analysis.

Site Selection

Although mindful of the larger social, institutional and policy frameworks, the units of analysis selected for this study were the perspectives of 20 teachers and three administrators in a single school. This was a conscious choice to focus on the locally-situated meanings, identities, and relationships that factor into the design and implementation of professional development. As Little (1997) advised, despite the conflicting policy mandates and practices to which teachers are exposed, teachers need to link professional development to the goals of the school. Researchers too, by adopting this local focus, can observe the general concerns for collegiality, collaboration, cooperation, and "bottom-up" process within the social world of the school. The school's social world constitutes the school's culture or, as Schein (1999) described it, "the shared tacit assumptions of a group that it has learned in coping with external tasks and dealing with internal relationships" (p. 186).

Once I met the ethical review requirements set forth by the University of Ottawa and local English school boards for the study, the Research Advisory Committee for the school boards recommended the site it considered appropriate for my research, St. Christopher, a Catholic High School (a pseudonym). For the purposes of non-Canadian readers, Catholic schools are publicly funded in Ontario and constitute what is commonly referred to as a separate school system that exists within the public school system.

St. Christopher High School opened in 2002 in a middle-upper class suburb in Ontario. The school's enrolment included 1400 students with 580 students in Grades 7 and 8 and 820 students in Grades 9 to 12. Ninety-six percent of the students were Caucasian. The visible minorities were mainly students of Black and Asian decent. The staff of 90 represented both genders and was ethnically diverse, including staff members who have roots in the Black, Chinese, Italian, Lebanese, Native Indian, Polish, English and French Canadian cultures. In addition to the English and French languages, a small number of teachers spoke Italian, Spanish, or Arabic.

In 2000, the Ontario Provincial Government mandated amalgamation of school boards in many districts; the staff for St. Christopher came from two different school boards in the region. Some teachers claimed their colleagues still talked about and continued to follow policies and procedures of their former school boards.

Between September 2004 and May 2005, because of growing student enrolment and teacher promotions to other schools, seventeen new people became part of the school staff. Although there were a number of experienced teachers remaining on staff, the average number of years of experience with the new entries was seven. The school housed two distinct groups: Grades 7 and 8 students and their teachers were located on

the third floor of the main building; Grades 9-12 students and their teachers occupied the rest of the facility. Teacher study rooms were located on the first and second floors.

Participants

Twenty full-time teachers and three full-time administrators from St. Christopher High School participated in the study. For the purposes of this study, the term “teacher” refers to a person who is a member of the Ontario College of Teachers who is an employee of the school board and whose prime function is teaching students. The term “administrator” refers to a person who is an employee of the school board and whose prime function is one of supervising teachers and creating and developing a vision for education (Roher & Wormwell, 2000). Table 2 provides an overview of the participants.

Table 2. Demographic Information on Participants in the Study

Gender of Participants	Teaching Assignment	Teaching Experience	Business Experience	Higher Degrees/ Added Responsibilities
10 Male	7 Gr. 9-12	7-1-20+ yrs	3- 4+ years	2 department heads
	1 Gr. 7-12	1-1 yr		
	2 Gr. 7 & 8	2-1-2 yrs	1-10yrs +	
10 Female	4 Gr. 9-12	4-1-20+ yrs		1 M.A. 1 M.Ed.
	2 Gr. 7-12	2-4-7 yrs	2 -1-4 yrs	
	4 Gr. 7 & 8	2-20+ yrs.	1-1-4 yrs	1 curriculum leader 1 M.Ed.
Administrators	Supervision	Teach/Admin.		
2 Male	Gr.9-12	11/15 & 12/6yrs	nil	1 M. PHE. 1 M. Ed.
1 Female	Gr.9-12	17/3 yrs	nil	1 M. Sc.

As may be seen from Table 2, twenty of the participants were full-time teachers, 10 male and 10 female. Within the male group, seven teachers were assigned to 9-12 teaching levels, one teacher to the 7-12 levels, and two teachers to the 7-8 levels. Within the female group, four were assigned to the 9-12 levels, two to the 7-12 levels, and four to the 7-8 levels.

Of the 20 teachers, 19 had participated in one or more of the following professional development activities outside of the school between the months of November 2004 to May 2005: workshops, seminars, conferences or university courses.

The 20 teachers ranged in experience from recent graduates to experienced teachers; a number had previous experience in business. Among the male teachers, five teachers had between one and seven years of teaching experience and five teachers had between 10 and 20 years experience, with four of the latter teachers each also having worked in the business sector for more than 10 years. Five female teachers had between one and seven years of teaching experience and five teachers had between 14 and 30 years of experience, with three each also having worked in the business sector for one to four years.

In addition to the B.Ed degrees held by nine male participants, two of those nine teachers had an additional BA degree in science; the tenth teacher had a mechanical technologist diploma. Two of the male teachers were department heads at the time of the study. Among the ten female participants, in addition to each having the B.Ed degree, three held a Master's degree, one in science and two in education. One female teacher was a curriculum leader at the time of the study.

All of the major subject areas were represented among the twenty teachers; these are shown in Table 3. Of the six teachers at the Grade 7 and 8 level, two teachers taught English, Religion and Art, two taught Science and Math (one in French and one in English), and two teachers taught Social Science and Religion (one in French and one in English). Of the remaining teachers, three taught in the 7-12 levels and 11 teachers taught in the 9-12 levels.

Table 3 indicates the teachers' assigned area(s) in 2004.

Table 3. Teaching Assignments in 2004

Teachers	Teaching Assignments
2- Gr. 7 & 8	English, Religion, Art
2- Gr. 7 & 8	English/French, Religion, Social Studies
2- Gr. 7 & 8	French /English-Math & Science
1- Gr. 7-12	Library, English
1- Gr. 7-12	History, Boys PHE, Religion
1- Gr. 7-12	Guidance & Resource
1- Gr. 9-12	Music & Co-op
1- Gr. 9-12	Religion
1- Gr. 9-12	Tech Studies
1- Gr. 9-12	Math, Tech, English
1- Gr. 9-12	Science
2- Gr. 9-12	Math
1- Gr. 9-12	Construction Technology
1- Gr. 9-12	Science, English, Math
1- Gr. 9-12	Social Science
1- Gr. 9-12	English, Business and Careers

Instruments and Procedures Used for the Study

The instruments used in this study consisted of the following: summary guidelines for field work (Appendix A), summary guidelines for interviewing (Appendix B), an open-ended interview questions for the case study (Appendix C), letters of invitation and information to school participants (Appendices D & E), participant consent forms (Appendices F & G), types of professional development in which teachers engaged (Appendices H), school artifacts and professional development meetings attended by this researcher (Appendix I), sample of field notes from one PD day (Appendix J), follow-up from the same PD day (Appendix K), school-board based professional development opportunities (Appendix L), annual teacher survey (Appendix M), and validation report form (Appendix N), audiotape recorder, a Dictaphone, Dragon Naturally Speaking, NVivo software products, and a poster to recruit candidates for the study (Figure 3).

Once the principal gave his approval for the research project to proceed at his school, he suggested that, since the school was “attempting to be paperless,” the Letters of Invitation for teachers who might want to participate in the study together with Consent Forms should be forwarded via e-mail to the school and the administration would place them on the school conference site.

Following the display of a poster inviting teachers to join the study placed in the staff room, an administrator’s introduction to the study on the school’s conference site, and teachers speaking with me concerning professional development, 20 teachers and three administrators volunteered to participate in the study. The participants were asked to schedule dates, times, and locations with me that were convenient for them in order to record an individually-taped interview and to schedule subsequent interviews. These

schedules were flexible and changes were made to accommodate the daily commitments of the teachers and administrators.

The participants were asked to choose their preferred locations for interviews. Bryman (2001) warns against the researcher intervening in the natural setting and notes that even designating the use of a special room to carry out interviews may render the findings of a research “ecologically invalid” (p. 31). Different areas throughout the school were used. Some teachers preferred their classroom, some preferred the staff room, and others preferred to use the conference rooms or the chapel. All three administrators chose their respective offices for the interviews.

Prior to conducting the taped interviews, the participants received hard copies of the Letter of Invitation and the Consent Form. The Letter of Invitation stated that participation in the study was voluntary and that should a participant wish to withdraw from the study at any time, he or she was free to do so. In keeping with the University of Ottawa’s ethics guidelines, the Consent Form informed participants of the risks and benefits of participating in the study and indicated the process that would be used to protect participant privacy and confidentiality.

Once participants read and signed the Consent Forms, they were asked about their views on professional development and open-ended questions were used to guide the exchanges. Participants were encouraged to use the “pause” function on the recorder if they needed time to formulate their thoughts. Four teachers did use this option. One teacher declined an audiotaped interview. The data was transcribed by longhand.

Dragon Naturally Speaking software proved to be a valuable tool for successfully completing the transcriptions for the teachers and administrators and NVivo software was

instrumental in assisting me to sort through the large amount of data generated from the interviews and field notes.

Data Analysis

Auerbach and Silverstein (2003) recommended seven steps in coding data obtained from the units of analysis (the perceptions of 20 teachers and three administrators). These steps were executed as follows in the data collection process:

Step 1: The raw text consisted of transcriptions from taped and non-taped interviews, field notes, material from the school conference website and the teacher handbook, and various school artifacts such as handouts at staff meetings. From the beginning of the research process, I kept hard copies of all materials and placed materials in specifically marked files on an ongoing basis. Keeping data in discrete categories by date worked well for the raw-data phase.

Step 2: The relevant text, that is, areas on which to focus were chosen by reading, rereading and highlighting the transcripts of the interviews, the field notes and other textual artifacts. Since using software in the data analysis process has been thought by some to add rigour to qualitative research (Richards & Richards, 1991), I reasoned that NVivo software would be a useful tool in helping me with the large amount of data. I imported the transcripts of the taped interviews into the NVivo software program as rich text documents. Because some transcriptions were incomplete at this stage, interviews were imported individually in rich text.

Step 3: The repeated ideas formed the building blocks for the eventual construction of the theoretical narrative. I searched the transcripts manually as well as through the software NVivo for particular terms and derivations of those terms. First, I searched for

repeating ideas, then by teacher experience level, and finally I searched across gender lines and across other group experience lines.

Step 4: The themes or groups of ideas that had something in common were formed through a process of combining the repeated ideas until all ideas were incorporated. A few ideas that were not incorporated into themes were kept because of their significance to the study.

Step 5: By moving from the descriptions of the subjective experiences found in the repeating ideas and themes to a more abstract and theoretical level, theoretical constructs were delineated and themes were grouped into units consistent with the study's theoretical framework of adult learning, self-efficacy, collective efficacy and supervision.

Step 6: Auerbach and Silverstein (2003) suggested that theoretical constructs must fit together and allow the researcher to tell a coherent story (p. 85). Part of the narrative originated from the interviews and the literature. Other segments were drawn from main and subsidiary sources such as my field notes and school artifacts.

Step 7: The process of transcribing participants' interviews and field notes and asking participants to scrutinize my findings became "in part a shared narrative construction and reconstruction through the inquiry" (Connelly & Clandinin, 1990, p. 5).

Criteria for Interpreting the Findings

Stake (1995) noted that readers need to know the criteria for evaluating research findings. Lincoln and Guba (1985) proposed four criteria for *naturalistic* research: credibility, transferability, dependability and confirmability, and linked their criteria with four criteria used in conventional quantitative inquiry: internal validity, external validity,

reliability and objectivity. This research study employed the following validation procedures to address standards of reliability and validity and ensure the quality of the methods used in the study: 1) triangulation, 2) respondent validation, and 3) dependability.

Triangulation

In the field of qualitative research, the term “triangulation” denotes a process of corroborating evidence from different individuals, types of data, or methods of data collection (Creswell, 2003). The assumption is if a point or explanation holds across several sources, then one can be relatively certain that one has found something integral to understanding a particular phenomenon, site, or group. Moreover, “triangulation is not so much a tactic as a way of life,” that is, if researchers start with the notion of collecting and double-checking their findings with multiple sources and modes of evidence, they build the verification process into the data collection process (Miles & Huberman, 1994, p. 267).

To increase the accuracy of this study, in addition to various data gathering strategies, I employed evidence representing data, people, and theories from the literature on how to triangulate the data. That is to say, the data used consisted of observations, interviews, interview feedback, documents and artifacts. The people participating in the research comprised not only teachers but also administrators. The principles underlying adult learning, self-efficacy, collective efficacy, and supervision for renewal employed the use of multiple perspectives in relation to the same set of objects. Thus, this study is based in persistent observation as well as the triangulation of data.

Participant Validation

Hammersley and Atkinson (1995) advocated explaining to the participants how one is developing conclusions as a means of building trust with the participants. Bryman (2001) warned against trying to become the mouthpiece of the participants and noted the risk of contaminating the subjects' words and behavior. These researchers also noted that the participants may or may not agree with the conclusions but may well be in a position to share additional information. This possibility has to be balanced with the fact that the researcher's findings acquire significance in the intellectual community only when the researcher has reflected on, interpreted and theorized the data (p.402).

Participants in the study were asked to be as accurate and as descriptive as possible in relating their experiences with and in professional development. I spent time explaining "anonymity in research," anticipating that such an explanation would encourage greater participant cooperation. In order to achieve participant or respondent validation, also known as "member checks," I met with each participant on two or more separate occasions throughout the study in an attempt to add credibility to the findings and to my interpretations of the data. These follow-up sessions gave me an opportunity to listen to the participants' concerns and frustrations. In addition to providing a catharsis for some of the participants, many stated that as a result of the interview process and feedback, they had a greater understanding of themselves in relation to their development as professionals and a better understanding of the needs of the school.

Following an initial tape-recorded interview, each participant in the study had two or more weeks to review the transcript from his/her interview to ensure that the narrative was accurate in content and technically correct. Then, before beginning the second

interviews, I asked participants if they wanted to change, modify or expand on their transcripts from the first taped interviews; this was to help ensure that the transcripts were correct and accurate representations of participant views. Some participants needed more time to review the transcripts of their interviews and such needs were accommodated.

Throughout the process, participants validated their own transcripts on an ongoing basis. After returning the individual transcripts to the respective participants and receiving their feedback, I proceeded to isolate the collective core findings of the transcripts. The purpose of the final meeting with each participant was to give a copy of the collective findings to each participant and review those findings with the individual and encourage each participant to complete the validation form that covered the entire research process (see Appendix N & Table 5).

Dependability

There is controversy in the literature concerning how to judge qualitative research and if it should be judged by the same criteria as quantitative research (Hammersley, 2005). Giving reasons for judgements to the members of one's epistemic community is nevertheless expected, and it is my belief that it is my responsibility to do so. I did leave an audit trail with the transcriptions of the interviews, the coding done with NVivo, my observation notes, and liberal use of teacher and administrator quotations in the study. In addition to the data, the methods and conclusions resulting from the data are clearly delineated in this thesis. By using the above criteria of triangulation and participant validation and giving attention to exposition of methods of data collection and analysis as well as exploring alternative explanations for the data collected, the methodology of the study was rendered more dependable to the participants and subsequent users of the data.

In general, every attempt was made to use procedures that were transparent, communicable, and coherent and to organize data in a format that other researchers could follow. In addition, as the last step in the study, I performed a self-critical reflexive analysis of the methodology used in the research as a means of demonstrating quality.

CHAPTER 4: CASE STUDY FINDINGS

Teacher Professional Development and Its Impact on Practices

One main purpose of this study was to understand the perspectives on professional development and its impact on the practices of twenty teachers at St. Christopher High School. The perspectives of three administrators also were sought, since the administrators were directly involved in approving, supplying, or supervising teacher professional development. As much as possible, I have relied on teachers' and administrators' own words to describe their own accounts of professional development and its impact on their emerging practices.

While recognizing that each teacher's perceptions of the meaning, purpose, and impact of professional development on his/her practices was unique and based on past experiences, many similarities in teachers' perceptions surfaced. The findings are presented below, as are a short introduction to St. Christopher High School (a pseudonym for the school) and an outline of how the four research questions set out in Chapter 3 will be addressed.

St. Christopher High School

The school's administrators designated the staff room as a place for socialization and relaxation. Staff and administrators used the school's conference site for staff communications purposes. However, the photocopier area was a favourite meeting place for teachers to share materials, exchange ideas, or vent the frustrations of the day.

Teachers and students viewed administrators as competent and their school as a "good school" with "talented people" who have "cordial relationships most of the time." There were monthly gatherings for staff socials, liturgical celebrations, and visits to an

administrator's cottage before each semester for team building and planning sessions. The surrounding community viewed the school in a positive light, largely because of programs such as student environmental cleanup campaigns, fundraising for charities, leadership in social justice issues, partnerships with businesses, and the school's open access policy to the community.

Research Questions

The four research questions for the study were:

1. How does a sample of high school teachers understand the definition and function of professional development?
2. How does existing professional development, as designed and implemented, contribute to teachers' respective practices?
3. What goals and aspirations do teachers have for professional development and how might those goals and aspirations contribute to their practices?
4. Are the school board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by the teachers in the study?

Findings

The following categories are used to facilitate the discussion of the findings: beginning teacher (1-5 years experience), mid-career teachers (6-15 years experience) and experienced teachers (more than 16 years experience). Other research groups, such as the American Educational Research Association (AERA) in the United States and its

British counterpart BERA use similar categories. In fact, the teachers in the study naturally divided along these experiential categories with a breakdown of six teachers having 1-5 years of teaching experience, six teachers having 6-15 years teaching experience, and eight teachers having 16 + years teaching experience. At times, significant data emerged that did not fit into the previously mentioned categories. To consider a more fine-grained perspective for these outliers, I employed additional categories: teachers from all levels of experience; teachers with business experience; teachers with family in the teaching profession; female and male teachers; Grades 7 and 8 teachers; and Grades 9-12 teachers.

For each of the four research questions, I first examined teachers' perspectives and then administrators' views, provided a summary statement and then provided an overall summary of the findings for teachers and for administrators. The themes used throughout the thesis emerged from the research data and are at the root of the teachers' understandings of professional development.

Question 1. How does a sample of high school teachers understand the definition and function of professional development?

In responding to question one, I used the following themes to guide the discussion: Teachers' needs and concerns; teachers' beliefs, attitudes and values; and teachers' motivations for growth and development.

Teachers' Needs and Concerns

Regardless of years of experience, teachers tended to define professional development in terms of their own needs for professional development as a means of

increasing their professional knowledge and pedagogical strategies, of providing a foundation for their own advancement, and as a means of helping students with their learning.

Beginning teachers: The needs of beginning teachers (1-5 years experience) centered on subject specific content, pedagogical strategies, classroom management and organizational skills, and access to resources and trained mentors. Their concerns focused on covering the courses and on colleagues who were not making an effort to stay current in their knowledge and skills.

Three of the six beginning teachers were “out-of-field,” that is, they had less than a minor in the field in which they were teaching. Professional development for these teachers was dysfunctional because it failed to meet their specific needs for subject content and instructional strategies, and fragmentary because professional development sessions at the school and school board were most often generic in nature. Unlike their counterparts in many United States jurisdictions, where teachers must prove their competency in the subject(s) they teach, these teachers did not have consistent opportunities or structures in place for their development.

One teacher exclaimed, “Teaching is no longer something that you can just pick up and do. It demands an amazing amount of commitment and skill.” This teacher went on to explain, “I would like to get some professional development. I don’t have much content knowledge or specific training in how to teach those subjects.” Two other teachers echoed similar wishes and one added that because he was hired late in September, he received no induction to the profession at all. These teachers said that they expected the school board or the school to put into place workshops or sessions to

address their knowledge deficits. The teachers wanted to feel and be competent for their students but said at times they felt anxious and disappointed and experienced self-doubt.

A fourth teacher explained the plight of some beginning teachers in this manner:

[In] my first three years of teaching, I taught 16 different subjects in six semesters. With this new course, I just designed a module unit... It took the better part of 70-80 hours of work. It is everything from the curriculum expectations to assignments and resources and diagrams... They [those teaching the same course] are not using anything that I suggested!

This teacher indicated that it was no use generating knowledge if it was not going to be put to greater use within the school or the system, and hence one of the values of in-house professional development.

Two teachers who were working in their subject area of specialization said they needed assistance in mapping the curriculum and five teachers expressed the need for assistance in classroom and time management, organizational skills, and accessing and obtaining resources and materials in a timely manner.

Four of the six beginning teachers set as a high priority finding experienced and knowledgeable mentors. They identified three main barriers to their search for good mentors: beginning teachers belonged to several departments, mentoring of beginning teachers was a voluntary act, and coaching students often interfered with beginning teachers' or other staff members' good intentions to meet.

All beginning teachers expressed concerns about covering the curricula within the semester. Also, they found it difficult to understand teachers who did not keep their skills and knowledge up-to-date and who "said one thing in meetings about collaboration and

sharing their expertise and then proceeded to their classrooms, and worked in isolation.”

One beginning teacher also mentioned that he had twenty-three students in his construction class, with nineteen of those students having an Individual Education Plan (IEP). He expressed concerns that the learning environment was sometimes unsafe because students needed more than content knowledge. He commented, “Those kids don’t have many other choices and have to fill report cards [meaning that students are expected to take x number of courses per semester regardless of their content]... There is a whole society that we have to change... I don’t get an awful lot of university people coming to support the program.”

Mid-career teachers: The needs of mid-career teachers (6-15 years experience) centered on classroom management and special needs students, opportunities for collaboration with colleagues, and guidance on their career paths. Their concerns centered on the lack of incentives for teachers to continue with their studies once they reached the A-4 level (Teachers’ qualifications are evaluated by the Qualifications Evaluation Council of Ontario. A-4 is the maximum salary level a teacher may obtain based on formal qualifications).

Four of the six teachers said they felt under-prepared for fully inclusive classrooms and found it difficult to meet the needs of many of their students. They stressed the need not only for more training but also more support in the classrooms and time for teachers to reflect with colleagues on how best to meet student needs. All four teachers had attended two or more workshops within the past two years on the topics of classroom management and special needs children; there was no follow-up support from these workshops.

One of the four teachers noted, “There are students who don’t function well regardless of the subject area. You can’t focus all of your attention on them. Administration is saying we have to accommodate these students. I need help right now because these students are impacting the whole class.”

Another teacher stated:

There is an epidemic of students growing up in families which are not functional. I very strongly believe it accounts for the drugs, the lack of self-esteem, the need to fit in, the gangs, and all of the bullying that we see in school.... People have committed suicide after being the subject of mass bullying and the schools aren’t even addressing what causes the bullies to act the way they do.... We have lockdowns... why are the kids taking drugs? No one really addresses that issue.

This teacher was speaking from personal experience. The school had experienced a recent student suicide. As teachers were struggling to meet the emotional needs of students, they were struggling simultaneously with the mathematics curriculum that in two teachers’ views “neglects totally the skilled trade industry” and is “a major cause of inattentiveness and some of the discipline problems in classrooms.” This teacher spoke at length concerning how students learn the content and the need to represent and convey material in meaningful ways. He said that he stayed after school each day because some students needed to learn in a small group setting.

All mid-career teachers saw collaboration as an essential aspect of teacher professional development. Unlike their counterparts in Japan where collaboration for lesson planning is embedded in daily practice, teachers suggested that not having such strategies in place was one of the major drawbacks in teachers forming a learning

community. One teacher suggested that “with the new curriculum and new expectations and the way our classrooms are becoming more diverse... we need professional development to help us cope and keep us united and enthusiastic and plugged in.” This teacher indicated that teachers needed time embedded in their daily work to focus on common goals, review what works and what does not work and come to some consensus about how the different departments can and should work as a unit. Two other teachers referred to the late evenings that many teachers worked at school and stressed the tension they felt between collaborating and infringing on another teacher’s time. They indicated that except for gathering information or getting quick answers to questions, they avoided impinging on other teachers’ time because “everybody is so busy.”

Three of the six mid-career teachers articulated concerns about monetary incentives after obtaining level A-4. They also were concerned with inadequate support and guidance for their career paths and indicated that a more personalized approach to career planning was needed. Two teachers recommended that a model similar to career counseling for students should be initiated for teachers. One mid-career teacher’s voice reflected the thoughts of ten other teachers when she stated, “Everyone assumes they know what students need and what teachers need; a school wide or even school board wide needs analysis would be beneficial in identifying teachers’ learning needs, but that has *not* happened!”

Experienced teachers: The needs of experienced teachers (16+ years of experience) centered on subject content, opportunities for renewal, access to leadership positions, and technological skills. They expressed concerns about the provincial government encroaching on the profession’s territory and thereby lessening their autonomy.

Three teachers stated that “subject oriented professional development is the most effective” but “course content is sometimes forgotten in professional development these days.” These teachers indicated that it was not only new teachers who needed professional development in subject content. One teacher commented that “some teachers spend the whole summer trying to get hold of courses they have to teach.” Science, another teacher pointed out, was changing so rapidly that teachers needed more than textbooks; they needed partnerships and to learn from scientists working in the field.

Opportunities for renewal were insufficient for most experienced teachers. One teacher stated his need for renewal in these words, “I haven’t been evaluated for several years. I would like to get some feedback on my teaching.” This teacher added, “I put in my annual plan that I wanted to attend the STAO [science] conference. We’ll it has already passed!” Three other teachers reiterated similar experiences of having signed up for professional development that never materialized because of lack of funding, lack of a suitable timeframe, or the personal cost was too high.

Four of the experienced teachers believed that their experiences and talents were underutilized and that more career opportunities needed to be created in the system to encourage growth and development in the profession. One teacher commented, “We have some very talented people out there who never get invited and they need that invitation to step up to the board.” Two other teachers mentioned that women do not have the same networking in place as men when it comes to learning the ropes to access administrative positions. One teacher’s response to not getting an opportunity for a leadership position was, “It was obviously *not* my qualifications in terms of academics and experience!”

Decisions on positions, she suggested, are based on whom you know. Three other female teachers held similar beliefs.

Technology was a worrisome venture for five teachers, who mentioned their frustrating experiences with learning to use technology without adequate support. They noted that the time, pace and delivery must be more sensitive to teachers' learning styles. One teacher mentioned that some technology training sessions were "ego-driven" and made teachers "feel stupid" and suggested "there needs to be a middle person between the technology people who are experts and the teacher who is learning for the first time."

Three teachers spoke about the challenges of remaining relevant for students in light of the prescriptive nature of many of the recent reforms. They believed their role was to develop concepts, principles and ways of living and to strive for new ideas. As one teacher stated, "If we lose that creativity, teaching becomes a very long life." These teachers expressed a sense of frustration with the continued focus by the Ministry, the school board and the school on the measurement of knowledge through various forms of testing instead of on learning how to learn. One teacher stated that policy makers need to focus more on the development phases of students and hear what teachers are saying, which is, "Get the government out of interfering with education."

Administrators: Administrators' needs and concerns pertaining to teacher professional development centered on getting greater cooperation from staff to implement policies, obtaining more direction from the Ministry concerning the implementation of programs, and receiving more time and resources from the school board. Two administrators expressed frustration with teachers who needed professional development particularly in the area of classroom management but refused to take advantage of opportunities. One

administrator stated, “You want to target someone...you try to welcome them but it doesn’t work.” She suggested the answer is to do professional development during school time. Another administrator commented that professional development is more than a teacher responsibility and indicated that “[teachers] really haven’t been given enough knowledge to understand the shift in philosophy [concerning areas such as assessment]...They need some professional development...the Ministry forgot to do that!” The three administrators further suggested that the school board needed to do more in providing time, funds and support for teacher professional development because such development impacted greatly upon the school’s ability to build teacher capacity or successfully implement many of the initiatives that could result in school improvement. The administrators noted that proposals made to the school board by administrators individually and collectively for additional time and support for on-site professional development did not receive a reply. One administrator reckoned, “there is little money in the budget for PD for schools; it is not a priority for our board.”

Teachers’ Beliefs, Attitudes and Values

Teachers’ beliefs, attitudes, and values concerning professional development and its purposes varied with the differing foci set forth by each of the school’s three administrators and also varied with teachers’ gender and years of teaching experience. Each of the three administrators had a distinctly different focus for professional development. Whereas one female administrator focused primarily on academics, the second male administrator focused on relationships, and the third male administrator focused on sports and student and teacher well-being. Teachers’ own foci were at times consistent with their administrators’ focus and at other times appeared to be inconsistent

with that of the administrators (see Figure 8 for data gathered in November, 2004 and again in February, 2005). The data, when examined according to teachers' experience and gender, showed that overall, more beginning male teachers than beginning female teachers believed that their focus was aligned with that of the school. Also, the data revealed that more mid-career and experienced female teachers than mid-career and experienced male teachers perceived their focus and the school's focus as being aligned (see Table 9).

Beginning teachers: All six beginning teachers believed the purposes of professional development were to acquire self-understanding and to improve their knowledge and understanding of their subject areas so as to facilitate the cognitive learning in all students. Four teachers were relatively optimistic that their learning and teaching opportunities at the school would get better as they gained seniority.

Having passed the survival and disillusionment stages during September to November 2004, the three newest beginning teachers appeared more reflective and assertive in December of that year as they mentioned that they were looking forward to the new semester because now they had a better understanding of what worked and what did not work, particularly as it pertained to classroom management. They valued colleagues who shared their knowledge and resources, and professional development that could address their immediate needs. The teachers who were beyond first year experience valued timely professional development that focused on mapping curriculum and implementing new instructional strategies by subject and grade level. One teacher, in reflecting on his teaching and professional development stated:

I don't use the textbook for math... that really freaks some parents out. Through PD, I have been learning to use problem solving strategies and applying them to real life situations. Parents don't like it at all. I believe it's the teacher that makes a difference in the classroom not the curriculum or program.

Mid-career teachers: In contrast to beginning teachers, the six mid-career teachers believed the purposes of professional development were to understand better the cognitive and social/emotional development of students, to update their own knowledge and skills, and to collaborate with peers. Four of the six mid-career teachers exhibited a positive attitude toward the idea of professional development, but they were somewhat skeptical about it being continuous and meaningful. They defined it in terms of courses, workshops, meetings, conferences and learning from one another. All six mid-career teachers reported that they valued administrators being sensitive to their expectations and valued professional development that was delivered by persons who were connected to the realities of classroom life. Five of these teachers valued seminars away from their regular school and ones that extended for longer than two days.

Experienced teachers: Similar to mid-career teachers, experienced teachers placed an equal emphasis on cognitive and social/emotional development. They believed the purposes of professional development were to apply updated knowledge and skills to their practices, develop teacher leadership and school capacity, obtain new ideas to improve their craft, and use their own and other research to improve student learning. One of the eight teachers stated, "I think that we should be a little more cognizant of whether or not professional development skills that have been acquired are actually being used in the classroom setting." This teacher, together with three others, saw value in

professional development that was anchored in research that they could apply to their classroom practices. These teachers held widely disparate attitudes toward professional development and stressed the need for government to reinstate professional development days that had been eliminated. All eight teachers said that they valued personalized professional development that allowed them to select professional development based on their needs and aspirations. Notwithstanding tensions surrounding the planning and implementation of school reforms, teachers said that they valued their administrators' abilities to secure resources for professional development but noted that opportunities needed to be focused, reflective of teachers' needs and coherent.

Administrators: Administrators believed that the purposes of professional development were as follows: "professional development is for people who fail to improve themselves personally or professionally in their jobs;" it is "to make teachers more effective on the job, help them think about how kids learn, and to reflect on what they are teaching." Alternately, "Professional development may assist teachers in moving to a new career path." One administrator commented, "I have always felt that teachers should have a model of life-long learning and adopt it. I think they have difficulty with it... We have resisters..." This administrator continued, "We are a progressive school. But we have to work and fit within a bureaucracy. We have to perform to an expected culture...the system doesn't allow leaders to be risk takers." Administrators valued autonomy, empowerment and more flexibility with time and structures pertaining to teacher professional development.

Teachers' Motivations for Growth and Development

The following areas served as the prime motivators for teachers' growth and development: experiencing personal growth; fulfilling Ministry requirements; feeling responsible for students' learning; working with colleagues who have similar interests; and receiving recognition.

Beginning teachers: One beginning teacher whose thoughts reflected those of two additional teachers noted:

When it [PD] is set up by the board or the school, the Federation, whoever, I think their first priority is for the students. But I think as a byproduct, one of the things to make it easier for teachers to do this is to make it an area of personal growth that they can feel good about and take it away so it's not just for their job or for the students, but it is something that is helping them grow.

Two other beginning teachers said what motivated them to engage in professional development was a sense of responsibility toward the students and the school to be the best they could be. These teachers noted how reflection on student performance led them to make changes in their practices and motivated them to continue to experiment and use alternative approaches in the classroom. For example, one teacher stated, "I taught science last year and instead of just teaching it from the textbook and overheads, I looked at kids' learning styles. After that [experience and reflection], I evaluated kids differently." This teacher continued to explain in depth how some students were not able to write their thoughts on paper but when questioned orally, they exhibited a good knowledge of the concepts taught in class. "Professional development, this teacher said, "enlightens you and allows you to go back and do things a little differently."

In focusing on the motivations of beginning teachers, I found it paradoxical that two beginning teachers who were excited about sharing their computer skills and new teaching strategies at staff meetings in November 2004 were reticent to share their knowledge and skills by February 2005 for fear of evoking “resentment” from peers for being singled out by administrators for good work or for fear of “burning-out” because of heavy teaching loads, coaching multiple teams, and being available to help other teachers.

Mid-career teachers: One of the six mid-career teachers reported that he went to great effort and personal expense to travel outside of the country to gain more expertise in his discipline and to interact with experts in the field. The purpose of such learning, he noted, was threefold: to learn how to apply specialized techniques, to excite students about the subject, and to share knowledge with colleagues. Five of the six mid-career teachers implied that given the rate of change and the expectations placed on teachers to do more, no teacher would ever be an expert and that teachers would be in a perpetual state of developing. They noted that planning and organizing for upcoming changes and “chilling out” also had to be considered and that professional development as an end in itself did not benefit the teachers, the students, or the school.

Experienced teachers: Five of the eight experienced teachers believed that sharing their knowledge on areas such as subject matter, classroom management and student motivation with their colleagues acted as a catalyst for their renewal and at the same time helped expand their colleagues’ strategies in the classroom. One experienced teacher illustrated how his motivation was enhanced by the following situation: “I just gave a math test to grade 11 students. Over seventy percent of the students failed. From the

results I've learned ...even after 17 years of teaching, I can still say, I didn't deliver that content quite well enough!" The teacher went on to explain that the teachers as well as the students were having difficulty in some areas of the mathematics curriculum and stated that "by putting our heads together we were able to solve many of the problems and find new ways of presenting the material." He added, "Professional development is work. It means talking with your colleagues daily about your teaching and learning and figuring out together how to make things better." Another teacher reiterated the importance of sharing by stating, "We have a tendency to be isolated... professional development has to include those opportunities where we get together to share... not just experienced teachers with new teachers but also experienced teachers with experienced teachers."

Teachers with experience in business: Five of the twenty teachers who ran businesses in the summer or after their teaching duties suggested that to improve teacher motivation for professional development, the education sector needs to set teacher growth and development as a priority. They advocated that the business model of investing in personnel training and education, as well as remunerating and promoting teachers for performance, was worth examining and adopting.

Teachers with family members in education: Four beginning teachers, two mid-career teachers and one experienced teacher said that their family members, who were in the teaching profession, had some influence on how they viewed their work. Overall, these teachers saw their role as one of service to others and their engagement in professional development opportunities was mainly in response to the needs of their students.

Administrators: Administrators noted the importance of teachers “seeing that there are going to be good dividends from buying into professional development” and suggested the necessity of having “some type of learning plan that the school district supported.” One administrator empathized with teachers and their need for personalized professional development in areas such as assessment and development. He stated nonetheless, “My policy [two years in the making with staff] is unique to my school, but it is basically in support of the board’s assessment and evaluation policy guidelines. It also supports the Ministry guidelines.”

Summary of Findings for Question 1: How does a sample of high school teachers understand the definition and function of professional development?

Teachers defined professional development in terms of their own needs, student needs and, at times, in terms of the needs of the school and school board. They perceived the function of professional development to be much broader than raising student test scores. For most teachers, professional development had political, social, and moral dimensions.

Beginning teachers believed that the purpose of professional development was to make them better teachers in the classrooms. They valued short-term “just in time” professional development that helped them make transitions from not knowing to knowing in order to handle a situation. They needed subject content and instructional strategies consistent with their assignments, assistance with curriculum mapping, and trained mentors. They were concerned with classroom management, staff relationships and the culture of learning in the school. Their overall attitude toward professional development was one of hopefulness that they would get what they needed in time to feel comfortable and competent in sharing their knowledge with students.

The purpose of professional development for mid-career teachers was to acquire skills, stay current, collaborate with peers, and attend to the cognitive, social/emotional development of their students. They needed professional development on inclusive classrooms, opportunities for collaborative work embedded in their daily work, and guidance with their career paths. They expressed frustration with the constant changes to curricula and lack of support to implement the changes. They expressed concerns about implementing learning, sharing the responsibility for learning, and providing incentives for teachers. They valued national and international professional development gatherings that encouraged networking and that were delivered by subject content experts in their fields. Mid-career teachers' attitudes towards the implementation of professional development were split between one of optimism and one of skepticism.

The purpose of professional development for experienced teachers was to improve their own learning and ultimately student learning. It also was to build teacher capacity. They needed challenges for renewal and opportunities for promotions, as well as mentoring in information communications technology (ICT) and student assessment. They were particularly concerned about government interference in matters concerning teacher professional development. These teachers valued a personalized approach to professional development and a number of them believed that subject-oriented professional development is more effective than other types of professional development. Their overall attitude towards professional development was one expressed by the words, "convince me that the changes are good for the students."

Five teachers with experience in business perceived monetary and other forms of incentives as a strategy for increasing teacher performance and student achievement. Four

teachers with family members in the teaching profession saw spending more time on social skills as a way of getting teachers to collaborate and thereby increase teacher and student learning and achievement.

All the teachers believed that the school's focus on academics, relationships or sports and well-being was at times consistent with their own focus. However, more beginning male teachers and more mid-career and experienced female teachers believed their goals and objectives were more aligned with those of the school than their counterparts. All twenty teachers believed to some extent that attention to teachers' growth and development needed to be an intentional, ongoing and a personalized process.

The three administrators understood the purpose of professional development to be twofold: as an institutional goal to change teachers' practices and thereby improve student achievement, and as a means of developing teacher capacity and building in-house expertise. They recognized that teachers' and the school's purposes for professional development were at variance on a number of issues and wanted more empowerment from the school board to address professional development issues in keeping with the needs of the school.

Question 2. How does the existing design and implementation of professional development contribute to teacher practices?

The following topics highlight the study's findings regarding Question 2: design and implementation factors; contributions of professional development to teachers' practices; administrators' contributions to teachers' practices; policies governing professional

development; designers and implementers of professional development; Federation and College communications.

Design and Implementation Factors

Most of the designs and structures of professional development programs, projects, and activities were designed by school administrators or the school board. Teachers were not included to any great extent in the planning or implementation stages for determining matters such as time, content, and location.

Appendices H and L offer an overview of the types of professional development in which teachers engaged. These types of professional development were within the school, within the family of schools, within the school board, or outside the school environment. Many were formal while a lesser number were informal.

Factors in design and implementation that affected teacher professional development and their practices are presented in Tables 10, 11 and 12, by gender and in Tables 13, 14, and 15 by grade level. Table 10 indicates teachers found that a lack of needs identification, a lack of follow-up on their learning, and the cost of professional development were factors that acted as barriers to their professional development. Table 11 indicates a focus on practical applications to practice, and the professional development providers' knowledge and ability to share resources positively affected teachers' practices. Table 12 indicates that both genders believed professional development motivated them to learn more. Table 13 shows that across grade levels, there was a need for practical application of professional development and for cost factors to be kept in check. Findings in Table 14 similarly to Table 11 indicate professional development tailored to teachers' needs and interacting with experienced

providers positively impacted teachers' practices. Table 15 indicates that the impact of professional development across grade levels converged in the following areas: expectations for student learning, assessment and evaluation practices; collaboration of colleagues; and critical reflection on teaching and learning. Table 16 provides an alignment of professional development activities with specific areas of practice. The literacy program, informal groupings, and leadership training had the most overall influence on teachers' practices.

Teachers frequently used symbolic language to describe professional development. Berg (2004) suggested that as an analytical strategy, symbolic language can offer insights into peoples' thinking where conventional language has failed. During interviews, thirteen of the twenty teachers used symbolic language that described professional development as it was for them in its present state. I have organized the symbolic language according to teachers' years of experience as a way condensing concepts and identifying patterns.

Symbolic language used by Beginning Teachers:

Professional development here is an old boys' club. The people who know the ins and outs of the system are able to go and take in the [professional development conferences] ones that are so interesting. The conferences are not offered to people who are new to the system or people who are kind of on the lower end of the spectrum. (*Female teacher, immediate family member in teaching*)

Professional development is a computer network. You go up the network. We all have the same starting point. We all have the same goals and needs, and we will

decide the path to take. You take the path that you need to be successful and every person has a different path. (*Male teacher with business experience*)

PD is a tool that you have in your belt, and you can use it if you want. If it doesn't work for you, then don't use it. Many people get hung up on the fact that you have to use it. That is what stresses a lot of people out, and I think that is a big reason why a lot of people don't like PD. (*Male teacher*)

Symbolic language used by Mid-Career Teachers

Professional development is a spinning fireworks wheel, not always, but sometimes this is the case. For example, this new computer program for recording a student's information. It was brand new and was implemented last spring and we had to suddenly learn it and implement it in September. It was good for me because I know I have to improve. (*Male teacher with business experience*)

"I am a sponge with tentacles like an octopus. I grab onto things, I see opportunities, and I take them." (*Female teacher*)

Doing Professional Development these days it's like saying let us write down what Vincent van Gogh did so that we can give that to the other painters, and they will be just as good and paint the same masterpieces. You can't. It was something special about that person. You can mix the colours the same, and you can paint similar pictures of sunflowers and such, and it won't be Vincent's work. The style could be a lot like Vincent's, but it's still not his work, and there are a lot of

intangibles, a lot of just because he was such a character that factors into the value of the painting. So, how do you add that to another teacher? (*Male teacher*)

“Professional development is like when you are wearing perfume, when it goes on your skin, it smells different on different people-different chemistry.” (*Male teacher*)

Symbolic language used by experienced teachers

We are dogs on a treadmill. We have no time to catch our breath. There is no time for professional development or a crossover of ideas. In [other countries] there is a different way of teaching. It is relaxed and respectful. Students want to learn and teachers engage in intellectual discussions of pedagogy. Here there is such a great emphasis on sports that students who are able to do very good academic work do not see it as a priority. If I have learned something at a professional development session; I use it to benefit my students (*Female teacher*)

I think it [PD] is a licence to move on. For me at this point in my career and the goals I want to achieve the professional development that I need is utilitarian. The mentoring workshop was fabulous...It was very much hands-on and it allowed you to make mistakes and then learn from them...that will really stick in the back of my head. (*Male teacher*)

Professional development is a tree! You need to have a solid foundation. As we grow and gain experience, our branches spread out and we go in different directions. Education, family, and community fill up your trunk. From there,

what has to come in is the sunshine or the kids in terms of why do you do it? Do you come in because of the kids or because of your colleagues? (*Female teacher*)

“A thirst ... yes, always looking, and never being totally satisfied with what you know” was a good analogy for professional development. (*Female teacher*)

[PD] is a resurrection. Everything you learn brings new life; it brings excitement. If you learn something, you want to apply it. You emerge with a new sort of professional sense of who you are... instead of dying in the old profession as the old teacher, you continue to renew yourself as an educator. (*Female teacher*)

I see it [PD] as a pyramid because when one teacher effectively teaches two other teachers, they in turn will teach others, and therefore it builds like a pyramid.

(*Male teacher with business experience*)

Five patterns emerged from use of symbolic language:

Beginning teachers: Pattern one suggested that beginning teachers, mid-career teachers, and experienced teachers each had different learning needs and they attempted to meet those needs differently. Beginning teachers appeared to communicate a message that they are seeking to “fit in.” They perceived their environment as being hierarchical and were aware of the purpose of building a repertoire of teaching strategies and remaining competent as evidenced by the “computer,” “the old boys club,” and the “tool belt” analogies.

Mid-career teachers: In pattern two, “mid-career” teachers appeared to communicate messages that they had lived through rapid sets of changes, and were proactive and

willing to seek out opportunities. In addition, they seemed to have a greater sense of their own uniqueness and realized more fully than did beginning teachers that teaching is more than “cause and effect relationships” as evidenced by their references to the “fireworks,” and “van Gogh.”

Experienced teachers: In pattern three, experienced teachers, through their symbolic language, seemed to provide a full range of messages. Their beliefs, attitudes and values toward professional development varied immensely from being frustrated with the status quo to building capacity individually and collectively; this is evidenced by the references to “treadmill,” “resurrection” and the “pyramid.” This is the opposite of what some of the literature leads us to believe.

Male and female teachers: Pattern four showed a difference in perception between the male and female teachers toward professional development. Some male teachers tended to see professional development more in the light of building networks, as is evidenced by the use of the words “network” and “pyramid”, and some females teachers tended to think of professional development more in individual terms, as is evidenced by the words “thirst” and “resurrection.” This is quite the opposite of what the literature leads us to believe.

Teachers with experience in business: Pattern five suggested that teachers with experience in business focused on achieving success through individual as well as collective strategies, as evidenced by the phrases “You take the path that you need to be successful,” “It was good for me because I know I have to improve,” and “When one teacher teaches another, they in turn will teach others.”

Based on the patterns that emerged from the use of symbolic language, it was clear that there were some common factors among teachers based on experience, gender, and previous experience in business. When these patterns were combined with the dialogue from the interviews, it became apparent that even within experience phases teachers' identities differed. Sometimes, independent of the concerns of the moment, there were variations within the accounts of a single person.

Contributions of Professional Development to Teachers' Practices

All twenty teachers cited a variety of contributions that professional development made to their practices. No one form of professional development, whether at school, at the school board, at the university, or in the wider community, was seen as being able to meet all of a teacher's needs and interests in professional development.

The teachers in this study participated both individually and in small groups in various forms of professional development, including training. They also discovered and used forms of professional development that were alternatives to the training model.

Contributions made to teachers' practices by professional development activities, projects, and programs included: having some level of intellectual, social, and emotional engagement with ideas, with materials and with colleagues both in and outside the teaching profession; having a greater knowledge and understanding of themselves and of student needs; acquiring skills and being able to implement them in their classrooms; and sharing or creating knowledge for school use. For the most part, those contributions affected the practices of individual teachers. Teachers believed such outcomes were relevant, informative, and above all, of direct use to them as they applied their knowledge and skills to help students, other colleagues, or the school board.

Teachers from all levels of experience: For teachers at all levels of experience, the literacy program brought together school research, educational policy, and teacher practices that helped facilitate change. Fourteen teachers cited the literacy program as one program that had a good design, with an ongoing implementation process focused on benefiting students. This initiative was not effective with all teachers and in all subject areas, but as evidenced from teachers' interview comments, it was effective enough to change the instructional and assessment practices of many teachers and to provide some evidence of improvement in student achievement and students' attitudes toward reading.

The content of the literacy professional development program made teachers aware that a focus on literacy was not only a school goal but also a societal goal. The program's content clarified the concepts and underlying theory that enhanced teachers' knowledge and understanding of literacy and familiarized them with evidence-based methods, teaching strategies, and best practices. The content was more concrete than theoretical and its aim was the development of student skills, yet it had sufficient theoretical basis and references to allow teachers to expand their knowledge according to their needs and interests. Supplementary literature gave teachers insights into the societal problems students can face when they are not literate, hence, the appeal to the moral side of teaching. The program clearly delineated the goals and the objectives related to its implementation process. Teachers had a clear understanding of the desired teacher behaviours and applicable strategies that would make the program a success in the school. Teacher accountability and responsibility were part of the program and acted as incentives for their learning and its application throughout the school.

From the outset, the school administrators and school board consultants supported teachers with time, resources, and training and encouraged teachers to take on the leadership of the literacy program. The four lead teachers actively sought full staff participation and took a long-term view toward its implementation. They included readiness activities to ascertain teachers' current skills. These were presented at the beginning of various parts of the program and later teachers took turns in presenting material as their "ownership" in the program increased. Ten teachers said they supported one another by sharing resources, information, and working collaboratively as a team on the program. One teacher reported, "We have a committee whose members have attended quite a few workshops... I am perfectly happy working with those people because I know that they already had the PD [professional development on literacy]." Throughout the implementation process, teachers had time to collaborate with one another and talk about what was and was not working and they gave and received feedback from the literacy committee.

To further assist with implementation, on the recommendation of the literacy committee, the school administration changed the structure of the school day to accommodate 15 minutes of daily silent reading, agreed to dedicating an extended period of the monthly staff meetings to literacy, and set aside reserve funds for success celebrations and for the purchase of software to supplement and extend existing strategies. Teachers also mentioned that having their own literacy manual and having groups of teachers present sections of that manual at staff meetings helped them with the implementation process. Eight of the twenty teachers stated that recognition by

administration, the school council and the school newspaper helped sustain the momentum and validated teachers' and students' efforts.

The overall contributions of the design and implementation of the literacy program to teachers' practice resulted in an increase in teachers' personal knowledge, in their motivation to work as a team, and in their ability to solve, in part, the problem of boys not reading and their lag in the Education Quality and Accountability Office (EQAO) test results (see Beers, 1996 for a detailed discussion on boys not reading and the Ontario Ministry of Education, 2004a). Furthermore, for some teachers, the literacy initiative added intellectual vigour to their professional lives, as teachers collected data, compared results over time, and examined factors that indicated reasons for improvement. Surrounding the literacy initiative, there was a norm of collegiality and a norm of continuous improvement, that is, there was a shared purpose and a set of structures to create the working conditions that facilitated the improvement.

There was a strong sense of collective responsibility for the goals of professional development in the area of literacy. Seven teachers mentioned the school's scores in English were at 70% prior to literacy improvement initiatives but the EQAO scores climbed to 93% in literacy within one year. The results from the EQAO tests and the increased numbers of students joining the reading clubs reinforced teachers' beliefs and attitudes towards the literacy initiative and provided the administration with empirical evidence that job-embedded professional development can contribute to some aspects of school improvement. To some extent, teachers were able to exert their professional judgment throughout this learning experience, were confident in transferring their knowledge and skills to students, and behaved as a supportive learning community.

Overall, teachers, regardless of their experience background, noted that it did not matter significantly where professional development took place—the school, the school board offices, or in the facilities of other school boards or other sites. What mattered to teachers was that the providers who delivered the professional development programs, activities or projects were respectful of teachers' time, credible in the area on which they were speaking, and provided material that was relevant and that teachers could use in their classrooms. Teachers were opposed to sessions run by, for example, consultants or administrators who talked about classroom discipline or pedagogical strategies when these members had not been inside of a classroom as teachers in years.

Administrators Contributions to Teachers' Practices

Beginning teachers: Four beginning teachers said that having administrators provide them with suggestions on how to address parents' questions concerning marks on student report cards shortly before their meeting with parents made them feel more confident and more comfortable in articulating the Ministry expectations. They also appreciated having a portion of each monthly staff meeting allocated to professional development that touched on a variety of issues.

Mid-career teachers: Three of the six mid-career teachers noted that, for the past two years, the school administrators prioritized literacy, and assessment and evaluation as the school's foci for professional development and provided professional development in those areas. While these teachers applauded the efforts of the administrators in the literacy area, from these teachers' perspectives, the school had "just scratched the surface on assessment and evaluation." Two other teachers suggested that activities surrounding assessment and evaluation created a cultural divide among the staff with mainly new

(male and female) and experienced female teachers endorsing the policy and mid-career and experienced male teachers resisting the policy because they saw it as regressive (see Appendix K).

Experienced teachers: Four experienced teachers noted that school administrators took full responsibility for training teacher candidates for leadership positions within the school board. For example, these teachers disclosed that the principal hired supply teachers to fill in for the regular teachers who took on administrative roles. Throughout the year, the school administrators arranged for each of the three male teachers aspiring to be vice-principals to act as a vice-principal for 15-20 days. Similarly, one vice-principal filled the principal's role in the latter's absence. These teachers were extremely pleased with the practical experience and coaching they had received. One teacher indicated that the experience gave him a better sense of the needs of the school as a whole and made him more aware of the demands of the school board.

Administrators: Administrators considered their own innovation—arranging for teachers with principal certificates to work for a time as vice-principals or as principal in the school—to be a contribution to some teachers' practices and to be effective because, as one administrator said, "They [those teachers in training] now have a good understanding of what they're getting into and are more effective to the system." This administrator pointed out that the type of training that the school was offering was not the norm in the school board; it was very generous with time and mentoring. Another administrator mentioned that she was instrumental in mentoring and promoting female teachers for leadership positions and indicated that one of her protégés had recently received the Prime Minister's Award for Excellence in Education. She observed that

women needed more coaching than men did in moving into a leadership position because “women lack confidence in their own abilities and often place others’ needs before their own aspirations.” This administrator referred to the “fear factor” among women “to take the plunge” into administrative positions and to “women, being the principal caregivers of children.”

Another administrator noted the substantial financial contributions made by the government to areas such as literacy to train the people, and suggested that school administrators played a crucial role in identifying and motivating teachers to lead the literacy project and facilitating the success of the program.

Policies Governing Professional Development

All twenty teachers in the study were aware of many of the government policies and accompanying budgets for teacher professional development. For example, two teachers spoke of “envelopes of money” set aside for Ministry initiatives. While some teachers freely shared their thoughts and feeling concerning teacher testing, teacher professional development, and instruments such as the Annual Teacher Learning Plan and The Teacher Performance Appraisal, other teachers were more reticent to do so.

Beginning teachers: Three of the six beginning teachers stated that the requirement that graduates of faculties of education present evidence to the College of Teachers of successful completion of the Ontario Qualifying Test Ontario Qualifying Test prior to being licensed by the College was “an insult” to them and the universities they attended. The three teachers suggested that their respective universities had prepared them for teaching and noted that the test did not contribute in any way to their work in the classroom.

Four of the teachers did see value in the Annual Teacher Learning Plan. They stressed that as new teachers, they now could use the Plan to identify the areas where they needed to improve and this in turn would benefit the students. As one explained, “It is a critical tool... What I liked about the Annual Learning Plan is that it allows me to improve in the areas where I think my current preparation in university was lacking [classroom management].” In contrast, one beginning teacher was critical of the Annual Teacher Learning Plan and noted, “It is just fulfilling the Ministry’s mandate.” Four beginning teachers believed that the Teacher Performance Appraisal Program offered them an opportunity to get some feedback on their teaching. They indicated that they already knew their strengths and weaknesses but that the feedback from administrators fostered their sense of being professional teachers, and the feedback helped them to secure resources to target their needs.

Mid-career teachers: On the topic of teacher testing, three mid-career teachers suggested that it was not possible to test teachers and then use the results from the test to decide on how teachers would perform in the classroom. They further suggested that it is the government and not the school board, the school, or the teachers that set most of the learning agenda for students and teachers. They perceived the programs of the school and school board for professional development as being tightly linked to the implementation of government reforms.

Four mid-career teachers viewed the Annual Teacher Learning Plan as a mechanism to control teachers’ decision-making and as such, as one of those teachers explained, “It is just an exercise.... Six of us did it on our prep...it really didn’t help us to figure out what we wanted to work on.” Similarly, four teachers did not see the Teacher

Performance Appraisal programs as having an impact on their development. Two teachers suggested that, although it was time consuming, the Teacher Performance Appraisal Program did to some extent create an environment that fostered mutual cooperation and trust with administrators.

Experienced teachers: Three of the experienced teachers noted that new teachers to the profession needed mentoring and nurturing, not testing.

Four experienced teachers commented that there needed to be a more systematic approach to the Annual Teacher Learning Plan whereby teachers could come together as a group to discuss their goals, learn of the goals of the school and the school board, and then plan their learning in a more informed manner. These teachers noted that teachers did the plan very quickly and that “with teachers picking and choosing what they want to learn there are too many gaps in teacher and student learning.” One teacher also commented, “I guess its [the Annual Teacher Learning Plan’s] purpose is to let the principal know what you are doing.” In contrast, two other teachers affirmed that the Annual Teacher Learning Plan was useful because it allowed them to work from their plan to monitor their progress; they also believed that the plan made administrators aware of their teaching, learning and career goals.

Five of the experienced teachers were critical of the Teacher Performance Appraisal program in its present form and implied that for experienced teachers, it needed to be more than an observational tool. In addition, two teachers suggested that a colleague who was in the same subject area, rather than an administrator observing in the classroom, would have a better idea of the subject matter and student behaviour and would be better able to offer concrete suggestions on pedagogical issues.

Teachers from all levels of experience: Thirteen of the twenty teachers in the study believed that the only Teacher Annual Learning Plans that the administration looked at were those of people due for evaluation that year, that is, those teachers who would have a formal evaluation using the Teacher Performance Appraisal Program. Few of these teachers expected professional development, in its present form, to transform their practices in any significant way. Twelve teachers indicated they did not perceive that there was interconnectedness among the Annual Teacher Learning Plan, the Teacher Performance Appraisal, and professional development in its present form with student achievement. Five teachers suggested that centralized training initiatives had overshadowed subject content professional development. Sixteen teachers did not expect professional development in its present form at the school or school board to transform teachers' practices.

Administrators: One administrator, in commenting on the Annual Teacher Learning Plan, stated, "I think it is a good thing... Are the teachers using it the right way? Probably not!" This administrator saw this tool primarily as a reflection tool, especially for mid-career and experienced teachers, to think about how they wanted to improve their teaching and student learning. Another administrator noted, "The Performance Appraisal model is very restrictive... It really doesn't promote growth." She indicated it was a useful observational tool for beginning teachers and those who needed remediation. With the multiple reforms and the pace of expected change but no accompanying support, administrators did not expect transformative learning to occur in staff or students.

Designers and Implementers of Professional Development

Department heads, curriculum leaders and professors in faculties of education were among the chief deliverers of formal professional development for teachers at St. Christopher High School. The following findings indicate the contributions that these designers and implementers made to teachers' practices.

Beginning teachers: Only three of the beginning teachers in the study were involved directly with department heads. Two teachers said that through exposure to department heads at monthly meetings, they became more aware of their responsibilities, such as safety of students. The third teacher noted that she looked to the English department head as a role model and expert and tried to achieve consistency in her assessment practices by checking with her colleagues when she had any doubts on the achievement level.

Three beginning teachers saw curriculum leaders as a resource for gathering information from administration and sharing that information with them and their colleagues, as someone who kept the resources up-to-date and ordered supplies for the teachers and as someone who helped the teachers fit-into the school culture. One teacher mentioned that she relied heavily on the curriculum teacher for guidance with curricula and assessment issues.

All six beginning teachers said that their training in curriculum and in assessment and evaluation at their respective universities allowed them to move confidently into the classroom and carry out many of their teaching duties. Three teachers stated, however, that their respective teacher education programs needed to do more to help teachers prepare for and deal with classroom management, learning exceptionalities, and the implementation of effective classroom strategies. Lacking this preparation, they asserted,

made it difficult for them to engage all students in the learning process and at times brought into question their competency as teachers. One beginning teacher identified a conference on classroom management as being relevant to his practice.

Mid-career teachers: Four of the mid-career teachers mentioned that each year, administrators asked department heads to draw up a schedule of topics for staff meetings and they gave each department the responsibility of providing professional development once within the yearly cycle. One teacher observed that “having departments take turns at delivering professional development allows us to see how other departments are working in the school and how we function as a group.” Three mid-career teachers described how the department head for English and the Arts had all teachers in that department examine student work using rubrics. Teachers said that from that exercise they were able to see collectively where gaps in student learning and teaching strategies existed. The teachers also said the exercise made them feel like they were part of a learning community.

Two mid-career teachers expressed the belief that trained curriculum leaders would have a greater impact on their practices than the current leaders presently had. One suggested that trained curriculum leaders would have a clearer sense of school, school board and Ministry’s expectations and be in a position to initiate discussions between Grades 8 and 9 teachers on curriculum, pedagogy, classroom management and student needs.

Two of the six mid-career teachers believed that the new knowledge they gained from their university courses helped them make better decisions as they guided students in making life and career choices. Another teacher mentioned that he was able to apply “some of his knowledge” and “a couple of skills” from a course he had taken,

immediately to the classroom and felt assured that his thinking and way of operating reflected current thinking in the area.

Three mid-career teachers and two experienced teachers identified the Science Teachers Association of Ontario (STAO) three-day conference as being effective professional development because it fostered networking within one's subject area. In addition, as one stated, "the science conferences are participatory, challenging, creative and have no political interference." Two additional teachers mentioned the Ontario English Teachers Federation three-day conference as being significant because that context allowed them to meet people from different schools, different backgrounds, and different cities and to share interesting ideas about how things work outside the context of their own experiences. For these teachers, conferences served as a catalyst for implementing activities and programs back at school. As one teacher reported, "From the super conference in Toronto, there were so many things that I have implemented like the read-a-thon, accelerated reader, and the books for boys' initiative. I also carried out research and wrote a proposal to get software to support student reading." Despite all the positive elements of such conferences, two teachers stated that there was no time to implement the ideas because of the already overcrowded curriculum.

Experienced teachers: Five experienced teachers suggested that department heads played an important role in maintaining good relations with the administration, coordinating resources, helping teachers meet deadlines, and keeping them apprised of new developments at the school board. However, one department head suggested that it was difficult to help teachers with instructional strategies or assessment and evaluation

practices when “resources are few, demands keep piling up, and certain issues don’t get resolved.”

Three experienced teachers believed that the curriculum leaders were not provided with the time and support they required to act as a liaison between the teachers and administrators. This lack of time and support placed additional pressures on the regular teachers to find resources and navigate through administration’s expectations that impacted on their own learning and teaching.

One experienced teacher, working as an associate teacher, believed her commitment to mentor a student teacher from a local university forced her to reflect on her own practices before she articulated what she considered best practices. The student teacher also acted as a prompter for the associate teacher to do some research and upgrade her computer skills. The associate teacher revealed that as a mentor, she experienced a sense of renewal, pride in her experiences, and confidence in her ability to learn new things. Two teachers felt that the university needed to form stronger partnerships with teachers in order to stimulate greater intellectual growth and development in schools.

Two teachers identified the Spoiled Child Syndrome conference as being interactive and having useful information that they were able to share with other teachers. One of these teachers also mentioned that he was able to secure literature on the topic for the library and started a chat line on the school web site concerning the topic.

Administrators: Administrators believed that department heads played a vital leadership role in the school in assisting with the implementation of Ministry and school board policy as well as strengthening the school culture. One administrator suggested that the training at the school of department heads for future leadership positions was not the

norm in other schools in the district and that the school's training program would have a positive impact on the whole school system.

All three administrators suggested that curriculum leaders were instrumental in the implementation of successful programs, projects and activities. They viewed this role as a way of identifying ability and capacity for further leadership training.

Administrators viewed teachers engaging in university courses, particularly if this was done during the summer months, as motivated, an asset to the school, and ultimately a benefit to the school board.

Two administrators approved of teachers attending conferences during the school day. All three administrators insisted that upon their return from the conferences, teachers share their skills and knowledge with their colleagues at staff meetings. One administrator commented that he always approved of teachers going to conferences but until this year had never felt comfortable enough leaving his school for an extended period of time to upgrade his own skills. Another administrator mentioned that in addition to content and pedagogy, there were whole new areas in education (safety, legal and family issues, technology, college, university or work transitions) that needed to be addressed. These issues could be addressed by conference groups that were "rich in resources."

Federation and College Communications

The Federation literature found in the staff room stated that staff development from the school board and in-service programs and activities are "training ... in accordance with the school board and the Ontario Ministry of Education objectives and participation in these events is usually mandatory." It explained further that professional development

is a “self-directed and voluntary process through which teachers, as autonomous professionals, establish and pursue their own goals for their continuous, lifelong professional learning, improvement and growth.” It added, “The Annual Teacher Learning Plan is YOUR plan” (OECTA, September, 2005; field notes, November, 2004).

Teachers, when they examined professional development through the lens of the literature from the College, obtained a very different view of professional development than that presented by the Federation. The College, a self-regulatory body with a legislative mandate (Ontario Regulation 184/97) to provide for the ongoing education of members, sets out for teachers the Standards of Practice for the Teaching Profession (see Appendix R). At the time of the study’s interviews, The Standards of Practice for the Teaching Profession included teacher commitment to students and student learning, professional knowledge, teaching practice, leadership, and community as well as ongoing professional development. The key elements of teaching practice focused on students, the curriculum, the learning environment, assessment and evaluation, and reflection. Ongoing professional development stressed the interdependence of teacher learning and student learning. Moreover, ongoing professional learning, according to the College standards, requires that teachers demonstrate a commitment to continued professional growth, reflect on their practice and learn from experience, draw on and contribute to various forms of educational research, and collaborate with colleagues to improve practice.

Beginning teachers: Four of the six beginning teachers were not aware of the programs or procedures for supplementary funding available for professional

development from the Federation, and two teachers indicated that they had no idea what the Federation did in relation to teachers' professional development.

The six beginning teachers mentioned that they covered the standards of practice set out by the College at their respective universities but that they had not become reacquainted with the standards in their workplace. One teacher pejoratively referred to the College's monthly publication of *Professionally Speaking* as "a glossy magazine" and "propaganda."

Mid-career teachers: Four mid-career teachers believed that the Federation could and would use its influence and power on their behalf to obtain more professional development days or at least some additional time and resources.

Four mid-career teachers maintained that "the College has lost credibility with teachers" because it did not defend itself as an independent body and it had succumbed to political pressure from the provincial government.

Experienced teachers: Five of the eight experienced teachers believed that the Federation was amenable to acting as a proxy agent for teachers, but they did not express faith in its ability to obtain the desired result of more professional development days and embedded professional development. All experienced teachers were aware that the Federation members visited the school each semester, offered professional development courses for teachers during the summer months, and paid 1/3 of teacher conference fees for approved professional development programs or activities. In some respects, these actions and functions secured a place of affiliation in the consciousness of those teachers (field notes, February 2005).

Three experienced teachers said they were “not sure what the College does anymore” but referred to the decision by Ontario teachers’ decision to reject and oppose the Ministry of Education’s teacher testing program and mandatory teacher professional development as “the right thing to do.” These teachers believed that it was the profession’s collective ability to oppose policy that influenced a change in government policy. Two other teachers used the term “political wing of the government” to refer to the College. Another teacher expressed the view, “[Education] is becoming too political and teachers are not having as much fun teaching because government has interfered too much for political reasons.”

Female and male teachers: While female teachers overall were more positive toward the government, Federation, and the College, with their respective roles in teacher professional development, male teachers were more positive toward the Federation than toward the College. Experienced male teachers were especially negative toward the government and its exercise of control over the profession.

Administrators: All three administrators believed that the Federation should do more to assist teachers in acquiring more time for professional development during the school day. With respect to the College, they believed that there were still bad feelings between teachers and the College and felt that time would heal the rift.

Summary of Findings for Question 2: How does the existing design and implementation of professional development contribute to teachers’ practices?

All twenty teachers were able to cite one or more examples of professional development that contributed to their practices. Many teachers reported that they were able to garner “something” from most professional development experiences, but they

had little information on the goals and objectives of most profession development programs and therefore did not know how to determine whether the programs had a positive or negative effect on efforts to achieve their own or student improvement.

Eight teachers said that when a professional development activity provided adequate resources, training, time for teacher collaboration, and follow-up, as in the case of the literacy program, and when teachers had a voice in the decision-making process for the activity, they did change some aspect of their practices as a result of the activity. Teachers linked changes in their practices with increases in student achievement in literacy and student interest in reading. In addition, teacher commitment to change in some areas prompted small changes in school organizational procedures. However, despite the positive results from the literacy initiative, more than half of both mid-career and experienced teachers believed that centralized training of literacy had displaced subject content professional development.

Fifteen of the twenty teachers and all three administrators said they believed strongly in the potential of professional development to make a difference to teachers' practices over time. All teachers and administrators felt restricted, however, by the time and resources allocated for professional development by the Ministry and the school board. The school itself did not have a professional development plan nor did it keep official records of teachers' professional development activities, and it did not regularly use evidence-based criteria to assess and evaluate the design and implementation of professional development programs.

Teachers were familiar with some of the government policies that affected their professional development and their work, but they did not understand some of the

policies. Teachers at all levels of experience did not see the necessity of testing beginning teachers; they had mixed reactions to their present forms of professional development and to mechanisms such as the Teacher Annual Learning Plan and the Teacher Performance Appraisal Program. Beginning teachers, for the most part, found both the Teachers Annual Learning Plan and the Teacher Performance Appraisal Program beneficial for their development. Mid-career and experienced teachers were less accepting of the mechanisms because in some cases the mechanisms were not aligned with teachers obtaining support for their learning plans or needs. In fact, twelve of the twenty teachers did not see the interconnectedness between the Teacher Annual Learning Plan, Teacher Performance Appraisal and professional development.

Teachers from all levels of experience believed that department heads and curriculum leaders had an important role to play in facilitating teacher and student training and learning. Teachers saw the need for changes being made to the training, responsibility, appointment and compensation for department heads and curriculum leaders.

Teachers said they valued their partnerships with the universities, but they felt that the universities needed to become attuned to the changes occurring in schools and adjust their education programs for teachers accordingly. Three experienced teachers indicated they wanted a closer association with universities in order to carry out research and stimulate growth.

Mid-career teachers specified that they needed subject-specific conferences to increase their knowledge and to increase their network.

Teachers saw neither the Federation nor the College as being overly helpful in obtaining additional professional development days or in addressing their needs for resources and support in areas such as mentoring.

Administrators believed that the present design of teacher professional development was inadequate to enable teachers to implement reforms. They held that on-site professional development that was fully supported by the school board could result in significant changes to teachers' practices and students' achievement. They believed that their initiatives of going paperless, using a portion of staff meetings for generic professional development, focusing on literacy, and training teachers to be school leaders was the best they could do to achieve school improvement, given the multiple demands made on them and their teachers.

Question 3. What goals and aspirations do teachers have for professional development and how might those goals and aspirations contribute to their practices?

This section examines teachers' goals and aspirations for professional development and possible contributions those goals and aspirations may make to teachers' classroom practices. Administrator's views also are discussed. The discussion is organized under four headings: teachers as professionals; teachers' working and learning conditions; teachers balancing individual and institutional needs; and embedding and broadening the professional development agenda.

Teachers as Professionals

Teachers, regardless of their years of experience, compared themselves to professionals in the medical and legal professions. They focused particularly on the

characteristics of respect and range of career choices that are extended to members of those professions. In addition, teachers believed that the present form of teacher supervision should change to reflect their ability to make professional judgements.

Beginning teachers: One beginning teacher commented, “What is so weird about teaching is that we’re called professionals, we have two or three degrees and yet we’re just not respected by the community as professionals.” Another beginning teacher indicated that the public has “a kind of hate-love relationships with teachers” saying, “We have a bad rep. [reputation] and we almost seem militant in most people’s eyes.” He suggested that, in part, past militant behaviour on the part of teachers may have caused the public to disrespect teachers. These two teachers suggested that the public needed to see teachers as professionals who cared about their work and students and who needed ongoing professional development embedded into their working day. Furthermore, the teachers hypothesized that a change in the public perception of teachers could result in changes in policy and funding for teacher education and training and at the same time reaffirm the status of teachers. They believed that the cumulative change would have a positive impact on some of their teaching practices and student learning.

Mid-career teachers: Three mid-career teachers also commented on the need for respect for teachers. One mid-career teacher maintained that much of the problem with the profession derives from society’s attitudes and from deliberate attempts by the government and certain media personalities to demoralize teachers. He stated,

When I had to fill out a passport application... the postman was a professional, the veterinarian.... Somebody said it is because they are all licensed and have something to lose. Are we not licensed? Why are we not on that list? Sometimes

they consider us professionals when it suits the person who is discussing the teachers' motives and sometimes we are not professionals!

Two other teachers implied that this quandary as to whether they were professionals or not affected their self-concept, level of confidence, level of motivation, and attitude toward work and the work itself. One teacher noted, "If you are going to treat people as professionals you have to trust that they know what they need."

Mid-career teachers perceived that having a greater range of career choices was a change that needed immediate attention. Three mid-career teachers referred to their spouses' professions, where there were ample choices for career expansion. One teacher noted that a doctor, for example, could decide to pursue other areas such as writing, researching, teaching, or specializing in one area and still remain within the medical profession. These three teachers had aspirations for a similar expansion in the teaching profession and believed that such an expansion would contribute to the generation of knowledge in the field and to teachers' application of research to their practices.

Experienced teachers: Five experienced teachers, when discussing public perceptions of the profession, emphatically stated that "teachers are professionals." The rolling of eyes and the movement of shoulders towards their heads inadvertently sent another message, one that changed the statement to a question.

One teacher said:

If I am speaking to a parent from an immigrant background, I think there is a high esteem for teachers. If I'm interviewing our North American parents, I think there is more of an expectation that you're providing a service for my child and, if you are not providing this service then, I have every right to come down hard on you.

I think to a certain extent that could be justified... but somewhere along the line that whole idea of respect for authority has kind of gone astray.

Two experienced teachers also spoke about parents questioning teacher decisions and referred to parents going online to check the curriculum, assessment criteria, and teacher qualifications. One teacher suggested that to alleviate some of the mistrust, perhaps teachers might exhibit their certificates and degrees the way other professionals do.

Three experienced teachers, all in their last ten years of teaching, mentioned that they would welcome the opportunity to deliver workshops, act as full time mentors, or develop curriculum, *not* in addition to their workload but as part of their workload. They indicated they had talents and skills they would like to use differently and such opportunities would help them feel a sense of renewal. Two additional teachers suggested that they had some experience in research and could help other teachers carry out research in the classroom and make changes in practices based on evidence. "Time and support to collaborate and use research could definitely enhance the learning culture in the school," suggested one teacher. This teacher elaborated by discussing the research she had carried out on literacy but noted she was unable to analyze the data in depth because of time constraints.

Teachers from all levels of experience: One beginning teacher, four mid-career teachers and four experienced teachers envisaged a time when discretion to make educational decisions concerning their professional development would not be subject to administrators' approval. These teachers stated that they held their administrators in high regard but envisioned the role of administrators in their development as being primarily one of affirming the direction and providing an appropriate level of support.

Administrators: Two administrators viewed beginning teachers as, on the one hand, open to change and good with sharing their knowledge of technology and assessment and evaluation practices, and on the other hand, as being “able to compartmentalize their lives and do a good job but never go that extra mile.” One administrator mentioned that in retrospect, the approach of younger beginning teachers to their work was perhaps healthier than her own view, which was “work is the priority.” Another administrator, in referring to more experienced teachers, suggested that some of these teachers might not be as up-to-date on curriculum changes or changes in assessment and evaluation as they should be. He suggested that release time for learning and ongoing support could ameliorate the situation for some teachers.

Working and Learning Conditions

Working and learning conditions were perceived quite differently by beginning teachers compared to mid-career and experienced teachers and were perceived very differently by teachers in Grades 7 and 8 when compared with teachers in Grades 9-12. The areas in which teachers were least positive about their working and learning conditions were communications, distribution of workload and resources, and support for their professional development.

Beginning teachers: Four beginning teachers said they often felt “information overload” as a result of a steady stream of communications coming from the union, the school board, their department heads, subject councils, administrators, their colleagues, and various organizations or associations. They found it difficult at times to make decisions as to which direction or directive to follow. They believed that devising a mechanism for streamlining or filtering the multiple communications that reached

beginning teachers would lessen their stress and help them deal more effectively with the things that really mattered, their students' growth and development.

Mid-career teachers: Mid-career teachers wanted to receive clearer communications and more consistent messages from the school and school board pertaining to their professional development, and obtain training in conflict resolution skills. Four teachers commented on the mixed messages about professional development that they received at the school board and the school level. Two teachers referred specifically to school board seminars during which some presenters focused on the knowledge, skills and competencies one needs in order to be a better teacher while other presenters strongly advocated teachers taking time for family, reading, and making contacts outside of the teaching profession in order to become a better teacher. Teachers also had aspirations of working with programmers who were knowledgeable and skilled in adult learning and who delivered a coherent professional development program.

Three teachers, on separate occasions, recounted sources of potential conflict, such as this example noted by one of the teachers: "The parents in this school have enrolled 80% of their children in academic mathematics and 20% in applied mathematics; the provincial distribution of students taking academic mathematics is the reverse of the norm in this school." The teachers assumed the numbers they heard from their administrators were correct (according to King (2000) 31.1 % of students interviewed in Ontario planned to attend college, and 50.5 % planned to attend university) and they believed that they as professional teachers should have the final say as to in which program students were placed. This difference of opinion concerning student placement led two teachers into conflicts with parents. All three teachers wanted accurate statistics,

a clear understanding of their role in deciding student placements in, for example, higher level mathematics, and training in how to handle aggressive parents.

Experienced teachers: Five experienced teachers indicated that a number of factors now required them to have better communication skills in order to address standardized report cards, the new computerized Individual Educational Programs (IEPs), parental knowledge of the curriculum, and parental expectations. Three teachers cited examples of parents expressing philosophical differences with the teacher over areas such as homework or evaluation strategies and said that such differences made communications and relationships problematic.

Of concern for two other experienced teachers were the mixed messages the school sometimes sent to parents and the impact these mixed messages had on classroom practices. As an example, one teacher declared, “The kid didn’t hand it [an assignment] in — that’s zero. ‘Well yes,’ says administration, ‘it is zero but we’re not going to call it zero...’ The confusion is from trying to make sense of two dissimilar systems.” These teachers said they experienced considerable dissonance between what the policy required, what they believed, and what they had to communicate to others. Three teachers confided that they were strongly against the assessment and evaluation policy but did not vocalize their objections for concern of not been seen as a team player or not being considered for a leadership position. One teacher, in noting that he was from the old school stated, “We are all accountable...I could approach this [using levels] in a very different way... and we wouldn’t come up with different marks. The fear is...I think I would get my wrists slapped.... I don’t feel it is effective and I am not going to do it.”

Grades 7 and 8 teachers: Six Grades 7 and 8 teachers who shared the same building with the Grades 9-12 teachers believed they were entitled to an equal distribution of workload, resources and opportunities for development. These Grades 7 and 8 teachers often referred to themselves as “second class citizens.” They visualized having working conditions that were on par with their colleagues and that allowed for collaboration with teachers in Grades 9-12.

One teacher recounted the discussion at the end of the school year meeting this way, “The *entire* Grades 7 and 8 staff and *none* of the high school staff said that there needed to be more collaboration between the two levels.” This teacher went on to explain that being able to sit down and discuss subject content, instructional strategies, work, study habits, and homework with teachers in the senior grades would have a significant impact on where teachers place their focus and how much effort they exert in mentoring and coaching students.

Another teacher spoke of the possibility of harmony between the Grades 7 and 8 teachers themselves. She noted that while some teachers believed in subject specialization and wanted to be subject specialists, other teachers believed in subject generalization and wanted to be generalists. She suggested that professional development for teachers who take a generalist approach might never have its intended impact because “teachers who want to keep students doing kids’ stuff don’t return to the classroom with the intention of testing kids at a different level.”

Grades 9 -12 teachers: Three Grades 9-12 teachers did acknowledge that the teachers in Grades 7 and 8 were “a tighter knit group” than the Grades 9-12 teachers and believed that “the 9-12 culture could benefit from doing things differently,” (that is, use a more

collaborative approach to learning) and working more closely with the Grades 7 and 8 teachers. Twelve teachers confirmed that “the workload for these Grades 7 and 8 teachers is *really insane*... They have more assessment to do and less prep. time.” However, despite comments by the Grades 9-12 teachers, it appeared that their support for Grades 7 and 8 teachers was verbal only, because the Grades 9-12 teachers did not attend meetings where these topics were discussed. Furthermore, the comments of Grades 7 and 8 teachers indicated that there was no active support from Grades 9-12 teachers to improve their working and learning conditions (field notes, February 2005).

Male and female teachers: Ten female teachers observed that women were the “workhorses” at the school and led and organized most of the committee work. Nine male teachers acknowledged that the women did most of the committee work but believed they did it because, as one noted, “They [female teachers] liked organizing stuff.” Three women suggested that administration referred to committee work as a way of identifying leadership qualities. All these teachers suggested that if the administrators would in fact select leadership candidates from among committee members, using their own stated leadership criteria, the trust and efficacy of female teachers would be enhanced.

Administrators: One administrator indicated that “the school board and the Ministry haven’t put the time and effort in to do a good enough job in terms of providing support to teachers who are currently in the system based on what their [these same teachers] needs are.” He also mentioned that resources allocated to professional development are a “very token approach” and that schools need “effective on-site PD...during the daytime or working hours.” Another administrator, in reflecting on Ministry requirements for

Individual Educational Programs (IEPs) for special needs students, stated, “We do beautiful reports and our template documents are well done, but we *don't* see how these are making a difference in student learning.” This administrator suggested that less paper work and more support in the way of personnel, training for teachers, and time to focus on strategies that are known to benefit students would make a difference in the school’s ability to better serve those students’ needs.

Balancing Individual and Organizational Needs

This study found that expectations for and control of professional development were two significant areas that teachers and administrators believed lacked balance. Many teachers believed that a balance could be found in many areas that are presently thought of as “either-or” situations. For example, either the individual should direct his or her own professional development or the school board should direct it, but not both.

Beginning teachers: Four beginning teachers aspired to be part of a school system that would continue to have high expectations for them, and would value their commitment and contributions to student and colleague learning more than their years of experience or credentials and compensate them commensurately with their performance. These teachers believed that such incentives would encourage more teachers to use their creativity and share their expertise in an entrepreneurial way and that this would have benefits for the classroom, the school, and the school board. “To tie remuneration to teachers based on their years of experience or academic achievement and not to professional performance is the biggest flaw in our educational system,” said one teacher. Another teacher indicated that compensation of time or money also should be given to teachers who develop learning modules or other resources that are needed and used within the school(s).

Mid-career teachers: Three mid-career teachers noted that the school, school board and society expect more from today's educators and one commented that "continuous upgrading is a necessity, not an option." These teachers wanted more of a commitment on the part of the school board to support teachers' professional development on a consistent basis and in areas that were specific to their specialization. Two teachers alluded to having a mental picture of coherence between the school and the school board pertaining to teacher professional development. However, as one teacher related, "The message I heard most [from our administrators] was 'don't shoot the messenger.'" He continued, "there is a lot of resistance to change in this profession." He indicated that management at the school was strong and the administrators had good control over the change process.

Experienced teachers: Four experienced teachers saw the present organizational approach to professional development as the antithesis of adult learning. Commenting on one recent professional development session on multi-media classrooms, one teacher explained that "the process was top-down most of the time" and suggested a better approach would be "making sure that the expectations are clear, making sure that they are achievable, making sure that we get at least 80% on board and *20% will do it!*" Another teacher suggested, "There should be some kind of an assessment as to whether or not professional development is actually being applied and whether or not it's actually working" and this should be a joint venture.

Two experienced teachers shared a vision of the school placing equal value on experience and credentials and administration using teacher experience as a resource. These teachers argued that "experience is an expertise and a qualification" that would

greatly help younger teachers or even other experienced teachers who have not thought of doing a particular task or teaching in a certain way.

Another teacher was hopeful that, just as there is a ceremony in China of passing on knowledge gained through experience to others, something similar might occur in Canadian schools. She mentioned, "It should be our holy task in teaching to pass on to the next generation of teachers all that we have gained from our careers." She continued, "There is such little intellectual exchange in this business. It's dangerous." She implied that the sharing of knowledge would serve to renew teachers and possibly generate knowledge for the system.

Teachers from all levels of experience: Concerning the control of their professional development, six teachers thought professional development should be mandatory for a number of reasons. For example, one teacher said, "There are so many teachers that I've come in contact with that need to go and learn something. If they don't have that being pushed on them, they never will do it and that is detrimental for everyone involved." Another teacher felt professional development should be mandatory because "unfortunately people will always find excuses not to do it [professional development]." Ten teachers suggested professional development should be self-directed. One teacher explained, "If there was more of an onus on the self-directed path, I think you would get a higher rate of involvement and success ... We are designated as professionals... making it [professional development] mandatory just creates hostility with some people and a reluctance to pursue it." The remaining four teachers made the argument that professional development should be both mandatory and self-directed. They mentioned that, along with consideration for the stages in teachers' careers and past experiences, professional

development planners also needed to know and integrate the priorities of the school and school district. One teacher summed up the role of the individual and the organization in this manner: “Personal planning is very important but there also has to be someone overlooking and making sure that really important things are being offered and people are able to get to them.” Another teacher, in recognizing the need for a balanced approach to professional development, pointed out, “You can tell me I need to keep myself current, but you can't tell me what I need to keep myself current in. I think the reason behind that is that we all have strengths, talents, and interests.”

Administrators: One administrator suggested using innovative scheduling within the school, for example, using student assemblies to free up teachers so they could group together in a semi-structured way for professional development. Another administrator suggested “having someone who was a skilled practitioner in the area of professional development organize and structure a professional development program for the school.” Administrators also expressed a desire for changes to the frequency and format of the Teacher Performance Appraisal. These administrators believed because of their experience and knowledge of the school and the system that they were in the best position to lead change in the school. What they required was school board support.

Broadening and Embedding Professional Development

Beginning teachers: Three beginning teachers, who were not teaching in their subject areas, hoped to have professional development in the content and pedagogical strategies for their new subject areas embedded in their workplace. These teachers believed it was critical that professional development be connected to their work in the classroom and to issues associated with the actual work their students were producing. In addition, five

teachers believed that time needed to be found for teachers to address matters such as collaborative lesson planning, examining student work, analyzing data from tests, and forming study groups. They suggested that these areas were important aspects of their learning and needed to be carried out in larger group settings with knowledgeable teachers during the school day so that teachers could learn from one another. They believed that having such changes in place would help everyone align their perspectives on learning and assessment.

Mid-career teachers: All six mid-career teachers believed that a shortened teaching day once a month or once a semester, as was being advocated by their administrators, would not accomplish the goal of improved learning opportunities for teachers nor benefit student learning or student achievement. One teacher who proposed bringing together teachers in the same subject area and grade level within a family of schools on a regular basis commented, "It used to happen, and it sounds simplistic, but asking teachers to bring some of the things that they do in their classroom that work, to me, is more meaningful than listening to someone talk about some theory." This teacher also suggested that working in partnership with other school boards or government agencies would save on school board resources and expose teachers to new and possibly innovative ways of thinking about their work. Mid-career teachers believed that the reinstatement of professional development days could be an interim solution to address teachers' needs; embedded professional development was what was needed over the longer term.

Experienced teachers: One experienced teacher believed that encouraging teachers to perform action research and participate in study groups would be effective strategies for

some teachers and likely would help them align their perspectives on content knowledge, pedagogical strategies and assessment practices. This teacher noted that more than anything else, “Teachers need fewer reforms, time to try out new practices, and ongoing support.” Another teacher said, “They expect a lot from us. Short sabbaticals could be used for opportunities for teacher renewal.” Three experienced teachers proposed broadening the agenda of professional development to include areas such as professional reading, integration of technology, and wellness and health literacy skills. Two other teachers believed that forming partnerships with businesses would be beneficial for teachers; it would improve their communications skills and possibly attract new resources to the school and school board that in the long run would contribute to student learning. For three teachers, professional development needed to include various types of coaching. From their perspective, most teachers at St. Christopher High School believed coaching to be an integral part of their teaching agenda and a way not only to get to know the “whole student” better but also to prevent many students who were considered “high risk” from dropping out of school. Coaching, for these teachers, was also seen as a means of bonding with other colleagues.

Teachers from all levels of experience: Teachers from all levels of experience saw professional conduct and continuous learning as areas that needed to be addressed in their daily work. Six teachers noted the need for a greater focus on ethical and professional conduct. One teacher expressed the view that “we [teachers] need to use professional language as outlined in the Education Act.” This teacher was referring to the manner in which four teachers were dealing with conflicts over resources. Two other teachers

identified the use of student names and comments on their cognitive abilities in public spaces as an area that also warranted being addressed.

Five teachers put forward other goals of embedding and broadening the professional development agenda. They advocated having incentives for teachers who are motivated to continue learning. They mentioned that at present, teachers who want to do their Master's degrees have to drop out of the workforce for a year or two. These teachers envisioned some grants being available so teachers could engage more readily in action research at school or in Masters' programs at university, preferably during part of the school year and during school hours. One teacher, in commenting on sabbaticals for higher studies said, "My own research will not give me enough ideas... We need to think outside of the school and the school board and look at the international level...skills need to be built up over time."

Administrators: Administrators believed that professional development at the school could move to a higher level but that time and money allocated to professional development, as well as administrators' autonomy, needed to increase. They felt these factors would contribute to more improvements taking place in teacher and student learning in their school. One administrator suggested, "What the board says we are getting and what is really happening is different." Another problem mentioned by this administrator was that hiring of staff centrally resulted in "a lagging behind" in certain areas, as positions in certain departments were not filled in a timely manner. Two administrators hypothesized that, given additional resources and support for on-site professional development, teachers at St. Christopher High School would be able to demonstrate to other teachers in the system how to make policies work.

Summary of Findings for Question 3: What goals and aspirations do teachers have for professional development and how might those goals and aspirations contribute to their practices?

Teachers expressed a need for professional development that addressed the intellectual, social-emotional, spiritual, and creative dimensions of their being. They believed their training to educate and deal with adolescents needed to go beyond the curriculum, instructional strategies and EQAO tests. They believed that time to collaborate and use research could enhance the learning culture of the school.

One goal articulated by a number of teachers was to change the public's perception of teachers as being militant and thereby gain political and financial support for the teaching profession. Teachers aspired to have the teaching profession on par with the medical and legal professions and their decisions and judgments respected.

Teachers wanted clear communication concerning their professional development and its purposes; they expected a greater coherence in planning and development policy among the schools, school board and Ministry. They specified the need for professional development providers who were knowledgeable and skilled in adult learning, who could personalize their learning, and who could provide them with feedback as they applied their new skills and knowledge to their work. They foresaw this approach as having a direct effect on the way that they approached student learning.

Teachers envisioned a future where the type of bonding, learning and support that occurred with the literacy program would be transferred to other subject areas and would empower them to achieve quality learning in other areas. They also hoped for a more collaborative approach to learning and closer bonding among teachers at different grade

levels and between themselves and administrators. Grades 7 and 8 teachers believed that since they shared the same building as the Grades 9-12 teachers, there should be an equal distribution of workload, resources and opportunities for professional development. Similarly, female teachers perceived the balance of work between them and their male counterparts to be unbalanced insofar as female teachers led most of the committees at the school. Experienced teachers thought that teachers' experiences needed to be just as valued as teachers' credentials are. Beginning teachers, on the other hand, believed that performance should be rewarded more than experience and credentials. Most teachers indicated the need for skills in consensus building and conflict resolution. Teachers believed that attention to the above particulars could result in greater harmony in the school and by extension, the system.

Disparate views emerged over whether professional development should be mandatory or self-directed. Six teachers believed it should be mandatory, ten teachers believed it should be self-directed, and four teachers believed it should be a combination of mandatory and self-directed.

Most teachers believed that an increase in professional development days, the formation of partnerships between school boards to share professional development resources, and embedded professional development in the workplace where teachers could participate in lesson study and action research, review ethical guidelines, or engage in short sabbaticals would help align teachers' perspectives on content knowledge, pedagogical strategies, and assessment. It would also renew teachers' motivation and level of commitment to their own and student learning.

Administrators envisioned all teachers being up-to-date with their skills and having a firm commitment to student achievement. Administrators' goals for teacher professional development were ones that were linked to school improvement and to preparing teachers to be leaders of change within the school system. They imagined the future as having more professional development at the school site with the objective of building incrementally on progress already made in specific areas such as literacy. One administrator specified the need for schools to have a knowledgeable person to develop, implement and assess a continuing, personalized professional development program. All three administrators believed the school could accomplish much more if it were able to hire its own staff and have control over teachers' professional development.

Although teachers and administrators shared a vision of school improvement, their goals of professional development were different. Teachers appeared to be focused primarily on their individual and personal improvement and that of the students for whom they were responsible. Administrators and three experienced teachers were concerned with how expectations, relationships, and accountability worked and fit together in their school to affect changes in teacher and student learning and achievement.

Question 4. Are the School Board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with goals and aspirations held by the teachers in the study?

This section of the paper compares teachers' perspectives on the board's goals and aspirations of the design and implementation of professional development with the

teachers' goals and aspirations and notes areas of conflict and coherence between the two. The views of administrator's also are discussed.

Conflicting Goals for the Design and Implementation of Professional Development

Conflicting goals between teachers and the school board concerning the design and implementation of professional development arose in a number of areas, namely: assessment and evaluation; use and maintenance of technology; training of department heads and curriculum leaders; time and funds set aside for teacher professional development; the manner in which the board brought large groups of teachers together; and the provision of mentors, not only for beginning teachers but for other teachers who believed they were ready to change their practices and implement school change.

Beginning teachers: Four beginning teachers believed the school board wanted them to use technology and share their knowledge with other teachers; at the same time, they felt the school board limited the kinds of software that teachers could use on classroom computers, placed most computers in labs rather than in classrooms, and did not supply adequate technical support to ensure that the computers were in good working order. One teacher commented, "Teachers inclined to do creative things with computers are limited by their access to good tools."

Three teachers believed that curriculum leaders carried out many of the functions that department heads carried out, yet there was a great discrepancy in the time and compensation given to those two roles. One teacher noted, "There is no job description for it [curriculum leader] so it is pretty much just do what you need to do!"

Mid-career teachers: Four of the six mid-career teachers mentioned that many of the school board professional development sessions are after school or on weekends and are

competing with family obligations, staff, committee, and parent meetings, sports, or clubs activities for the students. They also noted that the time allocated for professional development is far less than the time actually needed to produce real development in teachers or change in student learning. One teacher stated, “There is *no* time. The resources are there if you know how to access them.”

Experienced teachers: Four experienced teachers argued that the school board needed to make a substantial financial commitment to teachers’ professional development. One teacher commented:

They are paying a teacher \$75,000 a year and they are not spending even \$400 or \$500 a year on professional development. In business, this is unheard of. You cannot be effective unless you have strong professional development. I’m not talking about being forced... I’m talking about meaningful courses/programs that you are offering to teachers to help them generally improve their skills.

Two other experienced teachers said they did not feel comfortable asking questions in large audiences, particularly those professional development sessions held at the school board, nor could they get answers specific enough for their particular context. One of these teacher’s suggested, “The ideal would be to have another session after the school board session ... but when you are teaching and you are preparing and you are committed to coaching, you have to be freed up to do this. If you are not, then nothing is going to happen.”

Teachers from all levels of experience: Teachers from all levels of experience disagreed with the school board’s design and implementation of the role of department heads. Thirteen teachers who taught full- or part-time in Grades 9-12 believed department

heads should be responsible for one or two subject areas only and that they should be specialists in those subject areas. Moreover, a number of teachers suggested that school administrators, not the school board, should appoint qualified teachers from within the school because, as one teacher mentioned, "School administrators know the needs of their school and the abilities of their teachers to get things done." Two department heads said that with the present configuration of department heads, the budget for supplies and resources was spread too thin to address teachers' needs. In addition, because of the number of people involved in the departments, department meetings tended to be information sessions rather than a dialogue among professionals about best practices, implementation strategies, or effective use of data.

Most mid-career and experienced teachers took the view that professional development on assessment and evaluation provided by the school board did not leave them in a position where they could implement the suggested changes. A secondary issue for four experienced teachers was the amount of additional time it took to apply the new provincial policy on assessment and evaluation to student work.

Administrators: Administrators indicated that the conflict in philosophy that teachers exhibited in implementing the assessment and evaluation policy was confined mostly to those teachers nearing retirement. They believed that teachers' resistance and backlash was not directed against the administrators but at the Ministry and the school board. Similar to the teachers' view, administrators believed that department heads needed to have responsibility for fewer curriculum areas.

The administrators did not see the areas of technology or training of curriculum leaders as a problem resting with the school board. One administrator indicated that

“Professional growth in a learning community requires a commitment of time and resources,” and noted that “beginning teachers are left on their own after the Board Institute Days, there is no follow-up.” He suggested that, were the school given the resources, administrators could do the follow-up necessary and provide teachers with a better initiation into the teaching profession. Administrators believed the school’s website kept the school “cohesive, up-to-date with important matters, and professional development opportunities.”

Incongruent Goals and Aspirations between the School Board and Teachers

Incongruent goals and aspirations may in part be attributable to the fact that teachers’ perceptions were influenced by what school administrators chose to share with their teachers, what filtered through from department heads, what teachers read in the school board literature or on the school board website, and what teachers learned indirectly through other means. These incongruent goals manifested themselves in differences in expectations on student achievement and in differences in views over who should be providing professional development for teachers.

Beginning teachers: Three beginning teachers believed that the school board had high expectations of them and cited two or more of the following expectations: to be “competent in subject matter;” “have a variety of instructional strategies;” “know and implement new assessment and evaluation policies;” “be fully aware of the Teacher Performance Appraisal process;” and “be professional in conduct, and contribute to various facets of school life.” Despite these perceived expectations, one teacher noted, “When I went to the board and signed my papers [teaching contract], they never talked to me about professional development. They never said you were allowed this amount per

year towards that. Also, the school never mentioned it.” This teacher concluded that the school board’s vision for professional development was incongruent with that of many teachers, particularly since it did not seek input from teachers as to their needs or expectations.

Teachers believed that the school board played a role in teachers’ growth and development by providing workshops, seminars and certain types of training. Two beginning teachers did not believe that the training provided by the school board via some visiting consultants was a good use of resources, nor did they feel that building teacher capacity was a priority of the school board. These teachers believed that the school board valued deploying consultants in the schools but said they did not see the consultants as effective because the consultants did not have practical solutions to everyday school problems. One teacher commented, “A consultant came in from the board last year to talk about the new levels and evaluation... He didn’t say how to put it [the assessment and evaluation] into practice... That left huge gaps [in knowledge] in implementing the policy.”

Mid-Career teachers: One mid-career teacher spoke about the impractical ideas that some consultants presented when they visited the school and supplied the following example: “I was trying to accommodate students at risk [so they could work in a co-op position] but was told by the consultant to make contacts with businesses, form partnerships with industry, and get other teachers in the school on side to allow the students at risk to skip certain classes.” This teacher noted, “I don’t care how good the concept of placing students in the workplace is, if it can’t be implemented, [by having the

time and resources in place] then why [do consultants] waste my time presenting these ideas?”

Experienced teachers: Two experienced teachers stated that school board consultants were not effective in keeping staff apprised either of upcoming workshops or of sharing best practices with teachers. One of these teachers mentioned that he had not seen a consultant in three years and said that he thought that the school board had eliminated the position of consultants.

Four other experienced teachers said they wanted to achieve a similar level of program coherence to that of literacy in areas such as math and science, but they noted that school board support was not forthcoming. One teacher suggested that whereas the 2003 Ontario Literacy Skills Test for Grade 10 students found that 93% of the students at the school passed the test, the 2003 Mathematics EQAO scores for Grade 9 found that 62% of students in Applied Mathematics did not reach level 3 (the standard set by the Ministry), and 30% of students in Academic Mathematics did not reach level 3. Two additional teachers indicated that school board support was lacking for the Arts and for French as a second language and that these areas were equally important for student development as was the literacy program.

Teachers from all levels of experience: Teachers from all levels of experience wanted more time for professional development during the school day. In addition, they wanted days designated as professional development days to be used more effectively than currently was the case. Six teachers suggested that instead of having an inspirational speaker in the afternoon of “Christian Community Day,” the school board should have a subject area or theme carousels. Conversely, eight teachers described “Community Day”

as “a day to network or socialize with teachers from other schools and sometimes listen to an inspirational speaker.” One teacher suggested Community Day was important because it marked the gathering of everyone “as a faith community.”

The two other professional development days, one in February and one near the end of June, were widely described as “turn around days” insofar as teachers were preparing curriculum, gathering resources, checking class lists, or looking after other matters (see Appendix J and K for the February PD day, 2005 field notes details). Fifteen teachers indicated that they wanted these days and more to catch up, discuss best practices, dialogue with expert teachers about pedagogical strategies, or plan curriculum with other teachers within their subject areas. While ten teachers said they needed their full summer holidays to rejuvenate, seven teachers said they were willing to use part of their holiday time for professional development, provided the time was close to when they would be meeting their students. Three teachers suggested changing the teacher contract from ten to eleven months and using one month in the summer for professional development. One of these said he believed this strategy would benefit teachers and their students; he perceived, however, that the school board would oppose this idea because it could cause unnecessary conflict with the Federation.

Administrators: All three administrators saw incongruence in the number of reforms that the school board expected teachers and administrators to address. Although they wanted to see themselves as the prime change agents of school reform, they felt constrained by the school boards’ “micro-managing” and believed that they and the department heads were qualified and experienced to make decisions as to the use of funds and time to accommodate the learning needs of teachers. The school administrators

avoided bringing in consultants from the school board because, as one administrator commented, “I know that my teachers will turn a blind eye to some of the recommendations they are making.” As two other administrators noted, in general teachers preferred to rely upon each other for information and resources rather than seeking outside help.

Congruence between the Goals and Aspirations of the School Board and the Teachers

There was some congruence between school board and teacher thinking in the following areas: the need for professional development; the number of opportunities available to teachers for professional development (see Appendix H); the design and implementation of the literacy program; having department heads gather to discuss school board-wide examinations; expanding the number of School Board Institute Days; and assigning consultants to schools and curriculum areas.

Beginning teachers: Four beginning teachers were strong advocates for the literacy program strategies and said they appreciated the resource material supplied by the school board. Two teachers also asserted that attending School Board Institute Days in August gave them a good introduction to the system. They felt their involvement was “important” and would help them with “making the transition into the school culture.”

Mid-career teachers: Four of the six mid-career teachers believed they were able to eliminate, at least in the area of literacy and with the help of the administration and the school board, the fragmentation and incoherence that were thwarting their attempts to raise student reading scores on EQAO testing.

Three teachers did see the consultants as acting as a liaison between the school board and the school, offering valuable advice, and keeping them apprised of conferences and other professional development opportunities.

Experienced teachers: Five of the eight experienced teachers said there was some coherence in planning sessions at the school board where department heads were able to review school board-wide examination questions, suggest modifications based upon their teaching and testing experiences, and get feedback on subject specific areas.

Teachers from all levels of experience: Sixteen teachers at all levels of experience believed that the school board, school, and teachers were committed to the same goals and objectives in the area of literacy. Seven teachers affirmed the school board's role in the training of a school team and supplying of resources and support to make the literacy program successful.

Administrators: Administrators believed they were well on their way to establishing a shared vision of professional development with their teachers. They suggested that they knew the needs of the school and school board and involved teacher leaders in the decision-making process, and were exploring the social, economic, political and technical issues surrounding professional development. They said there was a need for greater coherence between the school boards' vision and their vision of professional development. Administrators believed that to be effective, professional development must provide teachers with ways to directly apply what they are learning to their teaching. One administrator noted that the school's annual survey used the school board's stated principles as a guideline for ascertaining areas that needed to be improved (see Appendix M for the annual survey, held in late May, 2005; twenty percent of the staff

provided feedback). The second administrator reasoned that “Teachers can’t make change...and often administrators can’t make change because it is a board or Ministry directives that we have to follow.” Nevertheless, this administrator suggested that things will evolve as they may. A third administrator summed up what she believed teachers needed and wanted:

They need time to plan, they need time to discuss... many of the workshops we attended were general and didn't give teachers the tools. That is what they want. They are busy. They are hardworking [people] and when they go to a PD session, they want to come out of it with something they can use in the classroom, not just something to think about.

Summary of Findings for Question 4: Are the School Board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by the teachers in the study?

The school board and teachers’ goals for professional development were in conflict in the following areas: assessment and evaluation; the training and responsibility of department heads and curriculum leaders; time and support necessary to implement change; the manner in which the school board brought large groups of teachers together; the need for mentoring for teachers at all stages of their career; and the use and maintenance of technology.

Conflict in the areas mentioned above was perceived by a number of teachers as being linked in some respects to feelings of frustration, anxiety, loss of motivation, and inability to innovate and create a better learning environment at the school. Teachers believed that movement to resolve any number of the above areas of conflict would

enhance teachers' professional development and assist the school's administration in achieving school improvement. They wanted changes to the educational assessment process so that assessments recognized teachers' judgments and were focused on student learning. They saw adequate time for professional development as an essential factor in their own and in student learning.

Incongruence between the goals and aspirations of the school board and the teachers manifested itself in differences in expectations on student achievement and in differences in views over who should be providing professional development for teachers. Teachers believed that some of the incongruence stemmed from teachers not having any input into timelines, design, implementation and assessment of professional development. They also suggested that teachers' needs and expectations needed to be considered in the deployment of school board consultants as providers of teacher professional development. From the perspective of fourteen teachers, the school board was responding more to pressures from the Ontario Ministry of Education for accountability and less to the need to facilitate in a timely manner teachers' access to the information, knowledge, and skills that they needed to improve their practices.

Congruence between the goals and aspirations of the school board and the teachers were found in areas of the literacy program, collaboration by the school board and department head on examinations, and the extension of School Board Institute Days. Six teachers believed that the school board meant well and that it did provide many opportunities and activities for professional development. Although a high percentage of teachers engaged in generic professional development, the teachers stated strongly that they needed personalized subject-specific content and pedagogical strategies delivered in

a flexible format to bring about change in their teaching practices and to improve student learning.

Administrators: Administrators perceived that teachers' direct communications with the school board concerning professional development were minimal. They suggested the conflict or discord resulted from the school board not understanding what was needed in terms of teacher professional development. All administrators saw incongruence in the number of reforms that they and their teachers were expected to address. Administrators believed that teachers' goals and aspirations could not be fully realized until administrators and the school board had a more coherent vision of what they were trying to achieve and put the support and resources in place to achieve those goals and objectives.

General Summary of Findings

Chapter 4 described, primarily from the perspectives of teachers and administrators in one high school, how teachers experienced professional development and what impact those experiences had on their practices. At the school, there were pockets of professional development, for example, the literacy program and the leadership training program that had been well-planned, implemented and supported by teachers and administrators and were deemed by teachers and administrators to be effective in changing teachers' practices and student achievement scores on the EQAO tests. However, this study also found that many of the institutional professional development activities and programs were not aligned with teachers' individual learning needs. Judging from teachers' statements in Table 6 and other statements recorded in this chapter one might infer that

those generic programs had limited sustainable impact on improvement in teachers' practices. It should be noted that these judgements were subjective assessments.

Teachers at various stages of experience (beginning, mid-career, and experienced) had specific and different needs for professional development. This study also identified other categories as having different needs for professional development from that of career stage. These other categories included: teachers from all levels of experience; teachers with business experience; teachers with family in the teaching profession; female and male teachers; Grades 7 and 8 teachers; and Grades 9-12 teachers.

Fifteen of the twenty teachers at the school defined ideal professional development as ongoing, self-directed learning and recognized, to some extent, the political, social, and moral dimensions of professional development. In addition to beginning teachers wanting to be better teachers in the classroom, mid-career and experienced teachers stressed the importance of collaborating with their peers, building teacher capacity, and attending to their own cognitive, social, emotional and spiritual growth as well as that of their students.

Both teachers and administrators believed that at times they were operating at cross purposes as to the implementation of professional development programs and activities. Whereas teachers wanted personalized professional development and tended to want subject-specific and pedagogical-specific professional development on-site and off-site, administrators focused mainly on generic professional development during staff meetings and leadership training that took place on-site. In addition, mechanisms such as the Teacher Annual Learning Plan and The Teacher Performance Appraisal Program, although useful particularly to beginning teachers, were seen by mid-career and

experienced teachers as well as administrators as needing to be redesigned to better accommodate teachers at different phases of their development.

Many teachers believed that greater coherence among the Ministry, the school board, and school policies pertaining to student and teacher learning, an increase in the number of professional development days, and opportunities to embed professional development in their daily work would have a substantial impact on teachers' motivation to learn and on teachers' willingness to use new instructional strategies and monitor their own success. And this in turn would help achieve many of the ambitious reforms set out by the government and school board.

Incongruence between the school board's approach and the school's approach to teacher professional development was in part the result of their different goals and objectives, their different foci for resource allocation, poor communications, and often, different interpretations of Ministry directives. The change that teachers wanted in the existing school board design and implementation of professional development was to move away from a "come and get it approach" to a personalized approach that recognized their individual learning and career needs.

Twelve of the twenty teachers believed there should be a better balance between addressing teacher needs and school board needs. They were convinced that professional development should be a joint responsibility between the individual and the school, the school and the school board, and the school board and the government.

Administrators used various tactics and strategies to meet the needs of the school, the school board and the Ministry. Their goals for teacher professional development were linked to school improvement and to preparing teachers to be leaders of change in the

system. Administrators believed that greater local autonomy and school control over teacher professional development and department heads would impact positively on student achievement and teachers' ability to implement provincial reforms.

Key Findings for the Study

- Over the past five years, all twenty teachers engaged voluntarily in one or more forms of professional development that they described as somewhat beneficial to their practices.
- Three of the six beginning teachers were teaching “out-of-field” and did not have opportunities or structures in place to learn the subject content and pedagogical skills in their assigned areas. All beginning teachers said they needed experienced and trained mentors to address various aspects of their practices.
- Four of the six mid-career teachers stressed the need for professional development in the areas of special education, opportunities for collaborative work, and career counseling.
- Six of the eight experienced teachers stated the need for subject specific professional development and opportunities for renewal and promotion, as well as for ICT mentoring and support for its implementation in the classroom.
- Although six of the twenty teachers did see value in the Annual Teacher Learning Plan (ATLP), they did not perceive that there was an interconnectedness between it and teacher professional development. Similarly, while seven of the twenty teachers said they found value in the Teacher Performance Appraisal Program (TPAP), they did not perceive that there was an interconnectedness between it and teacher professional development.

- Sixteen teachers and three administrators did not expect professional development in its present form at the school to transform teachers' practices.
- Female teachers overall were more positive toward the government, Federation, and the College with respect to their respective roles in teacher professional development, while male teachers were more positive toward the Federation than the College. Experienced male as well as mid-career teachers were especially negative toward the government and its exercise of control over the profession.
- In the eyes of teachers and administrators in this study, the literacy professional development program was successfully implemented.
- The training of teachers for leadership positions was successful because it was an internal initiative, had full administrative support, generous amounts of time for teachers to obtain practice skills, and focused on a small number of people.
- The assessment and evaluation program was not as successful as the literacy program because it did not have the same or a similar level of support as the literacy program, nor did it have teacher leaders or administrators who felt sufficiently prepared to articulate why changes in teachers' practices were necessary. Four mid-career teachers and six experienced teachers resisted fully implementing the Ontario Ministry of Education assessment and evaluation policy.
- Seven female teachers and one administrator indicated that female teachers need different professional development from their male counterparts, particularly in the area of leadership opportunities.

- Ten teachers believed that those who provide teacher professional development need to have knowledge of adult learning principles and recent experience in the classroom, and need to involve teachers in the full cycle of identification, planning, implementation, and assessment and evaluation phases of professional development.
- Teachers hoped for better coherence in expectations and control of teacher professional development internally, and better coherence and control of teacher professional development externally between the school and the school board and between the school board and the Ministry.
- From administrators' perspectives and the those teachers in the study directly involved in the literacy committee's work, a sense of a learning community was brought about in part by teachers' beliefs in and action on social justice issues and in part by their involvement in the literacy initiative.
- Administrators sought more autonomy and control from the school board over teacher professional development.
- Administrators, department heads, curriculum leaders, consultants, associations, Federation, the College and Ministry influenced to some degree teachers' beliefs and attitudes towards and understanding of professional development.
- Administrators were viewed by teachers and viewed themselves as responsible for implementing and leading professional development pertaining to Ministry policies and in training teachers for leadership positions.
- The principal drivers for teacher professional development over the past five years were in administrator's and many mid-career and experienced male

teachers' views provincial priorities which took precedence over teachers' needs and created an imbalance in the types of learning being addressed by teachers.

- The school board offered a wide variety of opportunities for teacher professional development. Lack of subject specific professional development, co-ordination of time schedules, limited access, repetitious content, and lack of follow-up sessions impacted on teachers' motivation to learn.
- Based on ten teacher and three administrator comments as well as my observations during the staff meetings from November 2004 to May 2005, school professional development, as part of monthly staff meetings, held after school, had a greater impact on teachers' social and technical skills than on their subject content knowledge and pedagogical skills.
- Neither the school board nor the school used instruments such as A Needs Assessment Survey or a Concerns-Based model to assess teachers' professional development. Nor were records of participation in professional development kept by the school board, school, or teachers.
- Workload, financial cost, and time for professional development presented themselves as barriers to quality professional development.
- Attitudes toward professional development were shaped by structural and cultural factors within the school, the school boards' reallocation of resources to cope with the Ministry reforms, by teachers' career stages, and by their associations' actions. The approach of the school administrators, department heads and curriculum leaders also affected teachers' attitudes both positively and negatively towards professional development.

- The influence of professional development on teachers' practices was measured by teachers using criteria different from that used by the Ministry and the school board to determine effectiveness.
- Experienced teachers tended to rate professional development lower than beginning teachers as did female teachers who believed that professional development had little impact on their promotion prospects.
- Administrators associated the Literacy initiative with improved standards of teaching and student learning. Five teachers also associated the Literacy initiative with their commitment to improve the school's reading test scores.
- The University was perceived as the foundational site for teacher professional development by four beginning teachers, but it was not seen as being responsive to changes in schools.

CHAPTER 5: ANALYSIS AND INTERPRETATION OF FINDINGS

Teacher Professional Development and its Impact on Practices

The findings of this study, documented primarily through teachers' narrative reporting, indicated that the stages of teachers' careers, the religious values espoused by the school and school board, teachers' backgrounds (experience in business or from a family of educators), and their gender had some influence on their perceptions of professional development, which in turn impacted on their practices. The findings also revealed that a network of reforms that had wide reaching effects on teachers' understanding of professional development and their practices underlay teachers' responses to questions concerning their professional development.

The four questions of this study focused the analysis and interpretation of the findings; to reiterate:

- 1) How does a sample of high school teachers and administrators understand the definition and function of professional development?
- 2) How does the existing design and implementation of professional development contribute to teachers' respective classroom practices?
- 3) What goals and aspirations do teachers have for professional development and how might those contribute to teachers' practices?
- 4) Are the school board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by the teachers in the study?

The themes of the political climate in the province of Ontario together with relationships, organizational support, governance, and culture of the school and school

board are presented here as key determinants that facilitated or hindered professional development that affected teachers' practices. The analysis and interpretation of the findings, while not absolving teachers of all responsibility for the advancement of their own and student learning, suggest that problems for the advancement of teacher learning and its application to practices often fell within the wider political and social realm. By wider political and social realm, I am referring to changes to policies to education brought about by changes in government, and changes in society: family unit, economic means, cultural and linguistic diversity, attitudes toward authority, and technological impact on teaching.

Political, Social and Religious Influences on Teacher Professional Development

This section will show how the political and social climate in Ontario influenced not only teachers' definitions and perceptions of the function of professional development but also the design and implementation of professional development. Furthermore, this section will demonstrate how the provincial political climate and reforms affected teachers' goals and aspirations for professional development, led to incoherence between the school and the school board and called into question the school's mission, with its religious values, espoused by the teachers and administrators in the school.

Teachers' and administrators' own knowledge and assumptions about teaching and learning, among other factors, shaped their responses to the education reforms of the Ontario provincial government. Based on the interview data, there is no doubt that both teachers and administrators were concerned about the effects of the reforms on the teacher and student learning and on the culture of the school. Feedback from teachers in

this study concerning their needs for and satisfaction with professional development suggested they were attempting to cope with too many government reforms and that the professional development provided by the school and the board over the past five years preceding the study was fragmented, rarely sequential, and inadequate to meet their teaching and learning needs.

Fourteen of the twenty teachers in this study had been involved in the first wave of reforms that included the destreaming of Grade nine programs and the introduction of a common curriculum. Seventeen of the twenty teachers in the study were exposed to the second wave of multiple policy reforms of the Ontario provincial government that began in 1997. This second wave of reforms was superseded by a cut of \$ 400 million dollars to public education funding. The following reforms presented challenges to both the board and the school: a) amalgamation; b) the removal of principals and vice-principals from teacher federations; c) an increase in the number of courses taught and mandatory participation in extra-curricular activities; d) a centrally defined curriculum, province-wide testing and a new report card; e) the elimination of the fifth year of secondary school; f) the Education Quality and Accountability Office (EQAO) testing in Grade 9 in reading, writing and mathematics, and a literacy test for Grade 10 students; and g) the establishment of the Ontario College of Teachers as the governing body of the profession with the mandate to implement a mandatory professional learning program for practicing teachers. Implementation of the Ontario government reforms increased the responsibilities of school boards in several areas including teacher professional development. The lack of coherence among reform policies, the lack of an agreed upon vision by the board and the school, and the lack of sustained support with resources from

the ministry left the board and the school pondering the purpose of teacher professional development and questioning the objectives of professional development programs.

Relationships

Trust as a Descriptor of Relationships

Trust is considered an essential element in any relationship. When people have trust there is usually a sense of confidence that what is promised will be done and there is a belief that reliance is reciprocal between parties. For the teachers in this study, amalgamation meant coming to a new school; it also meant coming to a new school board where there were new people, new policies, and new procedures. Some teachers believed that with board amalgamation, their voices and needs were repressed or unheeded, particularly with reference to their need for subject-specific professional development, support and training for inclusive classrooms, and assessment and evaluation of student learning. In some cases there was outright mistrust by teachers of administrators in the new organization. This was evidenced by teachers' references to professional development as "an old boys' club" and "you go up the network." The school in this study was just three years old, yet the rigid structure and ingrained culture at the school study site identified by two beginning teachers reflect a point that is critical to the study, that is, at the entry point of a teacher's career, the school's culture and relationships as described above impact on teachers' perceptions and on their use of professional development as a vehicle for their career path.

The specific reform (Bill 160) that separated administrators from teachers placed administrators in a more adversarial position with teachers than was formerly the case.

The trust that teachers had in principals and the flexibility in relationships in the past were replaced by uncompromising positions on both sides. Teachers looked to their collective agreements for solutions to problems such as supervision time and administrators, when teachers expressed objections to assessment and evaluation policies, reiterated the expectations as outlined in contracts and new government policies between teachers and their superordinates. This hard-line thinking was evident from teachers asserting that administrators would not back teacher decisions, particularly in the area of assessment and evaluation, if teachers did not comply with the ministry guidelines and board policies. Meanwhile, teachers argued that administrators “just scratched the surface on assessment and evaluation.”

Administrators noted that trusting relationships among and between school constituents were crucial to successful learning within the school; they acknowledged that such relationships were difficult to maintain particularly without increased resources from the government and the board to improve student performance and for teachers to improve their instructional strategies. Terms such as “the boss,” “management purposes,” as well as teachers’ perceptions that administration tended to side with parents rather than teachers provided additional indications of the deterioration in the relationships between teachers and their superordinates. This change in relationships made it more difficult for common understandings, transparent communications, and agreement upon the purposes and the intended outcomes of professional development for teachers.

Teachers, especially those who were mid-career or experienced, felt that administrators were adding pressure to an already saturated work program. They believed the objectives of the reforms were to standardize their teaching and minimize their *in situ*

judgment. To them, there was an undue reliance on overt instruction results and the predomination of the “delivery” metaphor that undermined the element of trust that they believed administrators should have in professional teachers. Clearly, then, the multiple reforms contributed to an increase in unhealthy relations between administrators and teachers and among teachers themselves in the school.

Collegiality as a Descriptor of Relationships

Effective action in schools requires the cooperative participation of a good cross-section of teachers and administrators. With the separation of principals and vice-principals from the teacher federation and the new mandates brought about by the multiple reforms, the terms “colleagues” and “collegiality” took on a new meaning. A number of teachers did not see themselves as being explicitly united in a common purpose with administrators and did not believe that professional development should be aligned with testing and training.

Cooperation between teachers and administrators and the appearance of unity that was formerly believed to be a key characteristic of teachers and principals working together seemed to diminish. In the face of increased bureaucratization, cordial relationships across ideological lines and tolerance for dissenting opinions lessened on both sides. As was evidenced in the findings, Grades 7 and 8 teachers engaged in disputes over workloads and over equal treatment with Grades 9-12 teachers at meetings and for resources. Similarly, with little time for collegial interface and exchange of knowledge and pedagogical strategies, the disparaging remarks by beginning teachers of experienced teachers and vice versa did not help build amicable relations or mutual

dependence among teachers. These attitudes, according to teachers and administrators, impacted on learning throughout the school.

Based on my observations, collegial relationships in the school were present at times: a) within departments, as was evidenced by groups of teachers marking student papers to establish consistency; b) within subject areas, as was the case with teachers revising tests in their subject area; c) within grade levels, as evidenced by teachers' discussions that focused on achievement gaps; and d) with the launch of initiatives, such as the literacy program where teachers came together as a group to improve the school's literacy scores. This latter view of collegiality was very different from the ideology of collegiality that stresses sharing. It was different in the sense that it did not spring naturally from teachers' needs but rather through administrative and department head directives.

Team Building as a Descriptor of Relationships

Based on my observations as well as on teachers' comments, administrators expected teachers to work in teams and to work as a team. While the term "team" was used and applied in the school, the concept was not fully accepted at the study site. Some teachers perceived their teaching to be a solitary act. Administrators, however, stressed "everyone being on the same page" in terms of defining proficiency and interpreting student performance. There was an implicit understanding among staff that teachers who did not regularly collaborate in teams limited the ability of the school in reaching its targets of higher test scores in literacy and mathematics.

In a number of cases teachers did not work as a team because they had long-standing conflicts that had not been resolved. Without trusting relationships, team building,

progress in the implementation of reforms, and creating a learning community were difficult to achieve.

Teachers and administrators did come together as a team to work on the literacy initiative. As was evident in the findings, administrators supported, advised and stressed collaboration. In addition, the providers of professional development for the literacy program applied many of the principles of adult learning to the teacher workplace. This and the fact that administrators used an arms-length approach toward supervision of the program fostered self-efficacy and collective efficacy among teachers. Teachers who engaged in professional development opportunities in which they worked as teams often reported feeling more confident and more satisfied with their teaching and learning.

School teams made an important contribution to the school's learning environment. The teams, however, were not a substitute for the day-to-day professional conversations that teachers in the study suggested they needed for joint lesson planning, problem solving, reflection on assessment and evaluation, and creating meaning for their practices.

Dialogue and Discourse as Descriptors of Relationships

The education reform that increased the number of courses taught by each Grade 9-12 teacher limited teachers' opportunities to dialogue and discuss teaching and learning in a structured environment with their colleagues. This was evident from teachers' comments such as "we have no time" and being "dogs on a treadmill" and comparing professional development to "spinning fireworks." The information contained in the extended sequences of utterances mentioned above went beyond the individual utterances themselves and suggested that the context of reform affected the meaning of the

individual utterances. Teachers identified their workloads as the key factor restricting them from passing on ideas they learned from their own experiences and related information obtained from other teachers. To build school capacity, teachers need to dialogue and observe skilled colleagues demonstrate instructional strategies and classroom management techniques, and to share their insights about their own learning and student learning. Teachers in the study wanted some control over what happened to both their learning and to student learning. While the best teaching practices from elsewhere inferred validation, teachers believed useful and relevant knowledge came from their own experiences and judgements, and dialogue with professionals who had experienced similar learning contexts as theirs and understood their learning environment.

Organizational Support

Resource Allocation as a Descriptor of Support

The multiple reforms of a centralized curriculum, the new report card system, and the elimination of the fifth year of high school had a negative impact on many teachers' practices. To implement these reforms meant that teachers needed new knowledge, new understandings, and opportunities to dialogue and discuss issues among themselves. Resource allocation in the form of budgets, personnel, time, and space directly affected what changes teachers were able to make in their teaching practices. Since as a result of the reforms, school boards were no longer permitted to collect taxes, the government became the primary funding source for schools to fulfill their mandate. The findings indicated that the multiple reforms were not accompanied with appropriate support for

their implementation and therefore were seen by administrators and teachers as poorly conceived and as the government renegeing on its responsibilities.

Educational policy and related funding for implementation are key elements in teacher and student learning; the operating budgets and program infrastructure have a large impact on professional development opportunities and the type of training options offered to teachers and school administrators. For example, supply coverage for the replacement of professional development participants was problematic for administrators for two reasons. First, the schools could not choose their supply teachers. The centralized supply teacher structure failed to ensure consistent subject specialization of supply teachers. Second, the board did not guaranteed funds for teacher professional development. This situation left teachers competing with one another for professional development places and left the vast majority dissatisfied with the process for participating in professional development programs. This was evidenced in the study by teachers' discontent and by such statements from administrators as "there is little money in the budget for PD for schools; it is not a priority for our board." Other factors that contributed to the inefficient and ineffective utilization of professional development resources at the board and school levels were: poor coordination of professional development activities between the board and school administrators; the complexity of the qualifying process; teacher and administrator accountability; and reporting requirements.

Technology as a Descriptor of Support

Information Communications Technology (ICT) was a resource that was highly valued by school administrators and some teachers. The demands of the multiple reforms

reduced the ability of the school and the board to effectively utilize technology to contribute to teacher and student learning. The school attempted to use ICT and to have teachers' integrate ICT into the curriculum, but it did not have a budget to upgrade teachers' knowledge and skills. The board focused on obtaining hardware and software, but it did not provide funding for teacher ICT learning and training. Incoherence in the various elements of the school and board programs, along with the priority given to testing and training, limited the introduction of ICT activities.

The literature suggests that effective learning environments for adults require that their different stages of development are respected, the pacing of learning is in keeping with their learning styles, and there are follow-up sessions to facilitate the transfer of their learning to the classroom. Many teachers found the ICT training out-of-phase with what they considered an environment conducive to learning. Fundamentally, there was a need to address the psychological needs of teachers as well as their cognitive needs. The need for psychological support was reinforced by teachers' comments on "having some control of the learning situation" and by concerns about their "self-esteem."

It was clear from the study that providing information and communication technology equipment to schools or to teachers does not necessarily make a difference to teacher or student learning. For example, while the Internet provides vast opportunities for teachers to control their own learning, it also requires a certain familiarity with online navigation. The study findings showed that teachers need to learn the basics of the Internet and use it on a fairly regular basis and in an environment free from criticism. When these conditions are not present, self-regulation does not have an opportunity to emerge and therefore, the desired skills and dispositions are not transferred to one's work.

Verbal support by the board for the integration of ICT was not accompanied by adequate training, time, and technical support; these factors prevented some teachers from integrating technology into their respective curriculum areas and addressing the different learning styles of many of their students. The incoherence in approaches to ICT by the board saw the school taking on more responsibility for teacher learning, and also forced teachers who were interested in ICT to find their own paths to learning.

Organizational Assistance as a Descriptor of Support

Both the school and the board had available to them many individuals and groups who could and did provide professional development to teachers. However, many teachers did not perceive professional development delivered by consultants as being effective. One possible explanation for this is that providers of professional development both at the school and at the board often came with K-12 background training and tended to have little knowledge of how adults prefer to learn. Generally, professional development providers lacked certification in adult education and as a consequence did not incorporate the principles of adult learning in their professional development sessions. As the teachers in the study noted, the number of sessions were plentiful but regard for teachers' experiences, interests or the need for follow-ups sessions was absent.

As a cost-saving measure, the board directed consultants, who were formerly assigned to provide in-service content-specific professional development in schools, to focus on literacy and EQAO testing and to go to schools only upon the request from a school administrator. This strategy was directly linked to the board's program for meeting provincial government reform goals. These changes in the board's support to schools failed to take into account that it was teachers who had to implement new

curricula, assessment and evaluation policies and other reforms and that they needed ongoing professional development to be successful. The unease with the changes made by the board led to the school's avoidance of board consultant services. The inordinate haste in which these programs were expected to be implemented, together with the lack of resources, including textbooks and information about the changes, led to administrators reaching out to experienced teachers to voluntarily mentor new teachers and to assist with the implementation process.

Another key element in the human development strategy was the failure of the provincial government to provide sufficient resources to boards and schools to respond to the effects of the elimination of the fifth year of high school. Subject area teachers who were directly responsible for implementation of reforms were particularly concerned about the late arrival of resources (textbooks and supplementary materials) that they needed to become acquainted with prior to program implementation. This situation was further compounded by teachers having to improvise new strategies to compress a two-semester program into one semester. The expectation from the government, the board, and the school's administration was that teachers would accomplish the implementation of the reform through informal directives and intra-school communications. In effect, teachers had to rely on informal support from one another outside of regular school hours to accomplish some level of success in implementing the curricula and other reforms. The lack of organizational support had an extraordinary effect insofar as it made teachers more keenly aware of the incoherence in approaches to professional development at the board and at the school levels. It also made teachers engage in professional discourse on learning, particularly those in the senior grades and propelled them to reflect on what

subject content was essential, what strategies could best help students absorb the compressed content, and how best to implement their own plan of action for their own professional development.

Data Management as a Descriptor of Support

There was a clear expectation by the provincial ministry of education that teachers would use EQAO testing data and other forms of testing data to improve student achievement. However, the professional development of teachers in the use of data and its interpretation was not adequately addressed by the board or by school administrators.

Administrators did receive training in data management from the board and were able to transfer to teachers the basics of data use; these training sessions were squeezed into the agenda of after school staff meetings. Given the specialized nature of this subject area, under normal circumstances, teachers would be required to carry out self-evaluation and criteria for the selection of teachers for training would be in place. A small number of teachers with knowledge in data management were able to make maximum use of the existing data. To apply knowledge gained from EQAO or other test data to their classrooms, however, required that teachers have time to examine patterns in their students' results over an extended period of time and be able to question the interpretation of the data. Support for this was not in place for teachers.

Because they did not have the skills to interpret the data in light of their own instructional strategies, teachers tended to see other factors as possible reasons why students were not meeting the EQAO standards: "curriculum is inappropriate for students' developmental level;" the behavior of students was at fault (spoiled child syndrome); and other factors to compensate for their lack of knowledge relevant to

existing data. The incoherent approach to use of and application of data and administrators' directives to professional development providers to limit the research aspect of their subject matter and to focus on practical issues may explain why some teachers did not change some of their instructional practices. Teachers who were interested in research methodologies needed to be encouraged and needed assistance with drawing conclusions from the data and using the data not only to drive student achievement but also to focus on their own teaching strategies.

The implementation of new professional development training programs did not keep pace with government reform policies and priorities, and there was even less time for assessing professional development programs and researching their effectiveness. Establishing the effects of professional development on teacher practices or student outcomes requires more than gathering the opinions of teachers or administrators; it requires time and resources to analyze data and suggest realistic objectives and direction for improvement. Capacity building and related teacher professional development data gathering and analysis at both the board and the school were incongruent and for the most part ineffective. The incongruent approaches of the board and the school with their record keeping of teacher professional development training and other activities in effect limited capacity building. This situation was evidenced by one teacher's comments, "We shouldn't be stockpiling this information in one person's head-we need to share it."

Governance

Leadership as a Descriptor of Governance

The Ontario College of Teachers is the governing body for the teaching profession in Ontario. The capacity of this body to engage most of its members in effective

professional development has been weak. Many teachers' comments demonstrated a level of indifference and in some cases an outright rejection of the College as a credible representative for the teaching profession. The attitude of indifference toward the College may be linked to a number of factors: the provincial government's decision that the College would take the lead on mandatory professional development and teacher testing; the minority representation of teachers on the College's governing council; and teachers' perceptions that the College failed to provide leadership on teacher priority issues that affected student learning.

The lack of confidence displayed by teachers toward the College affected the manner in which administrators and department heads addressed the *Standards of Practice for the Teaching Profession*. As noted in the findings, the standards set out by the College were not used as a framework or guidelines for school professional development, nor was there any mention of the standards in school board postings. Because of the controversial nature of many of the government reforms and the fact that they were introduced after limited consultation with teachers, it was not surprising to find that teachers had negative reactions to the College and its activities.

A major issue for teachers involved the terms "professionals" and "professionalism." Teachers' concerns about others' perceptions of the professionalism of teaching came to the forefront early in the study, as teachers compared their mandate, workload, training and education to that of other professional groups. The traditional interpretation of professionalism as authority over occupational knowledge and practice, and autonomy of practice in the workplace, as suggested to teachers by their federation in the Annual Teacher Learning Plan and by their own understandings of their status (as in "are we not

licensed?"), was replaced by authority relationships determined by the government for the specific purpose of "retraining" and "upgrading" teachers to achieve higher scores on student testing. The teachers considered the integrity of their knowledge and work to have been compromised by the government's exercise of power. As evidenced by comments such as "the mathematics curriculum neglects totally the skilled trade industry" and "the arts are totally neglected," teachers also perceived that their substantive concerns and knowledge were not taken into consideration in policy formulation with respect to the school curricula.

Governance can be viewed in a policy or a program sense. It can refer to the exercise of power as it pertains to the rules, processes, and behaviour; governance also can refer to openness, participation, responsibility, coherence and effectiveness. The exercise of authority by the ministry over the College unnerved teachers and their understanding of their identity and their status as teachers. It made teachers question the nature of their relationship with the educational community and it later led to behavioural resistance, as was seen in the findings on teachers' attitudes towards the Teacher Annual Learning Plan, to the effect that "It is just fulfilling the ministry's mandate," and the reference to the College's communications as "propaganda." Teachers wanted a shift in control of professional development programs and activities from a focus on training and testing to a focus on learning to learn and applying that learning to their practices.

Developing Leadership as a Descriptor of Governance

Teachers involved in the study expected their department heads and curriculum leaders to be competent in subject matter areas and capable of demonstrating exemplary classroom instruction, to possess knowledge of procedures that promote effective

management of classrooms, and to take an active role in teacher assessment and evaluation. The school board, if it had provided teachers who were department heads and curriculum leaders with skills and support, would have positively impacted on the ability of department heads and curriculum leaders to lead and would have provided a resource for the school. However, the school board failed to develop the leadership capacity of teacher leaders and by extension, teachers in their departments.

There was an assumption by the school board that department heads were being trained on the job for their increasingly diverse responsibilities, one of which was data use and interpretation. In contrast, the school assumed that since the school board hired department heads, the school board would train them. With neither the board nor the school taking responsibility for the training and education of department head and curriculum leader, these school leaders were only able to act as information disseminators; they were not able to provide the type of assistance that teachers needed.

Teachers clearly saw the provincial government, the district school board, and their administrators as having legal authority over some of their professional development. Nevertheless, teachers did expect to have an input in the professional development decision-making process. At the school level, administrators respected experienced teachers' historical involvement in educational reform. They encouraged these teachers to comment on board policies and programs and to analyze the provincial testing and assessment and evaluation policies. This constructivist approach focused teachers on developing their own meanings and on integrating theory and practice as a basis for action. However, at the same time, administrators took charge and limited teacher contributions on "hotly debated issues" such as the assessment and evaluation policy, and

parent's demands for their children to be placed in academic courses. Administrators felt compelled to integrate the needs of the system with the individual needs of teachers. In effect, administrators were operating with two different sets of criteria for quality education and teacher professional development: those reflecting government priorities and those reflecting board principles (see Appendix M). Teachers interpreted these two approaches to education reform as representing two different worlds, one of accountability and the other of responsibility. For example, on the one hand administrators stressed accountability and the need for improvement of EQAO scores and used part of staff meetings for teachers to review EQAO data and design action plans to meet set objectives. On the other hand, administrators stressed that teachers had responsibility for their own learning and therefore, they did not take attendance at staff meetings, kept no formal record of teachers' engagement in professional development, and did not examine teachers Annual Learning Plans except if the teachers were scheduled for Teacher Performance Appraisal.

Collective Responsibility as a Descriptor of Governance

Collective responsibility to students, colleagues, parents and the community was an issue for many teachers, particularly when they were confronted with the implementation of reforms that did not, in their professional judgement, benefit the students. School reforms with the new visions for improving results for students created new expectations and accountability for teachers, some of whom believed that is not what they were hired to do. Collective responsibility, in teachers' views, needed to be accompanied by shared norms and values. In the absence of these shared norms and values, the question of what is worth learning was more open to debate among teachers. This was evidenced by the

findings with debates concerning the mathematics curriculum neglecting the skilled trades industry.

This study suggests that if governments and other stakeholders truly want teachers to be fully engaged as professionals, new approaches to reforms must be built on a concern for a balance between the needs of individual teachers and the needs of the educational system. Teachers need to understand the changes taking place in their profession and why they are occurring.

Self-evaluation as a Descriptor of Governance

The shift in governance over the past five years convinced many teachers that professional development was aligned with testing and literacy. The shift in governance also meant a standardized *Teacher Performance Appraisal* document. An analysis of teacher and administrator responses to teacher performance appraisal confirmed a breakdown in coherence between what was promised to assist teachers in their development and what was delivered. *Supporting Teaching Excellence: The Teacher Performance Appraisal* manual stated that the purpose of teacher performance appraisal is “to ensure that students receive the benefit of an educational system staffed by teachers who are performing their duties satisfactorily; to provide for fair, effective, and consistent teacher evaluation in every school; and to promote professional growth” (p.3). Teachers did not perceive that they were being sufficiently assisted with their professional growth. The tenants of collective responsibility would suggest that the implementation strategy for this and other reforms would have taken into consideration teachers’ needs and requirements.

In some cases, the multiple reforms affected teachers' practices by rendering them passive recipients of professional development. The findings showed that those teachers who shared this vision expected administrators to follow up on their stated needs in the Annual Teacher Learning Plan with appropriate professional development activities and took no active role themselves in undertaking the professional development that they had stated in their Plan.

The standardization of the teachers' performance appraisal document for the province (that had previously been under each school board's control) caused indignation of many mid-career and experienced teachers, who perceived improvement in the educational system as being dependent on effective teacher self-evaluation. Teachers did not perceive self-evaluation as simply an individual process but rather a process that involved colleagues in a variety of ways. This was evidenced by such occurrences as teachers mentioning visiting other teachers' classrooms with the purpose of sharing best practices and department heads evaluating teachers without administrators being involved. All three administrators saw the need for a conceptual shift on the part of teachers, one that connected teacher performance appraisal practices with professional learning. They also believed that the performance appraisal instrument needed to change to reflect teachers' experience levels and thereby allow at least some self-directed learning.

Culture

Change as a Descriptor of Culture

The government's vision of what constituted improvements in education together with multiple reforms put in place to achieve that vision differed from the purpose of

professional development as seen by many members of the school community. Teachers at times used religious metaphoric language to describe what they believed the purpose of professional development to be, for example, one experienced female teacher stated:

[PD] is a resurrection. Everything you learn brings new life; it brings excitement. If you learn something, you want to apply it. You emerge with a new sort of professional sense of who you are... instead of dying in the old profession as the old teacher, you continue to renew yourself as an educator.

Another experienced female teacher commented that “The Christian Community Professional Development day is terribly important because we are a faith community....It is an important to remember why we are here.” References to religion were explicit as well in the schools’ strategic plan which focused on school improvement aligned with the gospel values of faith, community, partnerships, excellence, persons, justice and stewardship. To some extent religious beliefs could be said to have a general cultural bearing on the ethos of the school and teachers’ perceptions of the purposes of professional development.

These conflicting visions of school improvement changed the culture of the school from one that focused on community development to one that focused on training. One example of the government’s vision for education was to measure achievement, hence, the Education Quality and Accountability Office (EQAO) testing Grade 9 students in reading, writing and mathematics and testing Grade 10 students in literacy. Teachers in this study reported that this initiative hindered the teachers’ ability to focus on the social and emotional needs of students and limited the creative projects that teachers believed were intellectually challenging and engaging for students. They felt that the EQAO

initiative narrowed teachers' selection and choice of learning materials, and it required teachers to make clearer links between their teaching goals and classroom activities. In one administrator's judgement, "money spent on EQAO testing would see better returns if it were applied to literacy or numeracy professional development for teachers." Instead, government research on education focused on EQAO testing and school boards focused on evaluating curriculum programs.

The school board, which holds primary responsibility for building professional capacity and for managing reforms to education that affect student and teacher learning, failed to provide adequate assistance to schools to help them understand and manage changes to curriculum, instructional practices, assessment and evaluation and inclusive classrooms. Moreover, the school board distributed what some teachers considered to be contradictory directives to schools--requiring them to target better test scores for students and at the same time to become a learning community. The contradiction for some teachers came in the demands for all students to reach a common set of standards and devoting more attention to the individual needs of each student and teacher.

Administrators lacked the necessary knowledge and resources to help teachers deal with educational reforms that impacted directly on their classrooms and teacher learning. This was evidenced by one administrator indicating that the school needed assistance with planning and assessing professional development, and another administrator noting, "they [teachers] really haven't been given enough knowledge to understand the shift in philosophy [concerning areas such as assessment]... They need some professional development...the ministry forgot to do that!" The pace and expectations for implementation of the multiple reforms left administrators trying to balance the needs of

the students and the needs of the teachers with the needs of the school board. In the final analysis, the administrators took the functional option and focused professional development activities on teacher training and student achievement, that is, areas that were consistent with the government reforms.

Teachers in the study perceived their own needs as of equal importance to student needs. For the school board and school to acknowledge teacher needs for learning as equally important to those of students and to encourage self-directed learning requires adherence to a democratic philosophy that has as one of its main principles a belief that people will make the right decisions for themselves if given the necessary information and support. The main question here is about how decisions concerning teachers' professional development and supervision ought to be made. If we were to use adult learning principles as the criteria for judging whether most of professional development sessions in the school or the school board used a democratic philosophy for teacher professional development, the conclusion from teachers' accounts of their experiences would be that the professional development sessions did not meet the criteria. Moreover, little or no support was available to help teachers transfer skills acquired through professional development training to their classrooms.

Compliance as a Descriptor of Culture

The school and board culture, which focused on testing, influenced beginning teachers to comply with reforms and to participate in generic professional development, even when their basic needs for content and pedagogy in their subject areas were not addressed. This compliance may be explained in part by their need to fit into the school culture or by their foundational training, which stressed initial teacher testing (teacher

preparation programs by the university required an external verification as part of the teacher certification process) administered by the Ontario College of Teachers.

Beginning teachers were concerned with teachers who did not update their skills. Their comments on this issue suggested they saw the systematic and uniform approach to teaching and learning as an acceptable and perhaps a necessary commitment. The testing culture, which supplanted the culture of professional development focusing on subject areas and pedagogical instruction, affected teachers' self-efficacy beliefs concerning their abilities to meet the learning needs of their students and their confidence in teaching their subject areas. It also affected beginning teachers' assertiveness in approaching administrators to ask for professional development in subject content and teaching strategies. Experienced teachers did not take too seriously the ramifications for non-compliance. As mentioned in Chapter 4, one teacher commenting on the power of the ministry's surveillance system noted, "We are all accountable...I could approach this [using levels] in a very different way... and we wouldn't come up with different marks. The fear is...I think I would get my wrists slapped.... I don't feel it is effective and I am not going to do it."

Overall, teachers did not perceive their growth and development as being valued by the ministry, the school board or the school, particularly when compared with the focus given to EQAO testing in Grade 9 Mathematics and the Ontario Secondary School Literacy Test (OSSLT) taken in Grade 10. The fact that neither a needs assessment survey nor a Concerns-Based model was employed to assess teachers' needs suggested to teachers that they had no option other than to comply with the reforms. Moreover, the

culture of testing and compliance was further reinforced by the publication of school EQAO results.

Collaboration as a Descriptor of Culture

The focus on EQAO testing resulted in teachers having to collaborate on training and testing issues. Teachers had mixed reactions to this type of collaboration. In general, they believed that instead of a focus on testing and training targeted on literacy, they needed a collaborative culture that allowed them to seek out and apply best practices in their classrooms.

Significantly, the implementation of the literacy program to address the EQAO achievement scores facilitated a type of collaboration among teachers. As a group, teachers were actively engaged in discussions concerning pedagogical strategies to increase students' interests in reading and motivation for reading, as well as improving the school's standing in the area of testing. The outputs from the focus on testing by the school board and school showed improvements in student achievement levels in the form of higher test scores. But outputs showed limited impact on teachers' growth and development in subject areas outside of English.

Teachers' and administrators' conceptions of collaboration differed substantially. One possible explanation for this difference is that as a result of the reforms, teachers and administrators no longer belonged to the same association and therefore had different priorities and different outlooks on what constituted teacher professional development and what the outcomes of professional development should be. On the one hand, teachers defined collaboration as working together on issues that interested them or on areas that they believed should be addressed. Two administrators, on the other hand,

perceived collaboration as a systematic approach to addressing student achievement in literacy. At some staff meetings, administrators distributed guidelines on test score results and suggested methodology for analyzing the data so as to target students at risk. Some department heads and curriculum leaders endorsed administrators' directives, other heads and leaders did not. Variations among the different departments in acceptance and implementation of reforms affected the school culture and had an impact on student learning. According to participants in the study, the administrators did not focus on modules that teachers designed, action research projects that added to the body of knowledge in the profession, or new pedagogical strategies that teachers implemented in their subject areas. Administrators did acknowledge and celebrate teacher contribution to student achievement in literacy and focused on finding strategies to improve student literacy and mathematics scores.

Commitment as a Descriptor of Culture

Key phrases in the school board's mission statement included "...providing necessary resources for quality...education" and "...development of lifelong learners." Key phrases in the school's mission statement included "...respect, justice" and "a positive and progressive learning environment." The two mission statements say essentially the same thing (and also essentially the same things that many teachers said about their own mission). The mission statements are not to be blamed for the incoherence between the teachers' view of professional development and the view of professional development held by the school board and the school. The school board, caught up in current government reforms, put aside its values and commitment to students and teachers and their development in order to abide by the law and maintain

harmonious relations with the government, a government that publicly questioned teachers' commitment to student learning and to their own growth and development. Administrators at the school focused on the implementation the multiple reforms. They were committed to upgrading teacher knowledge of literacy and assessment and evaluation practices. As one administrator noted, "The goal is to get teachers to have a personal objective to improve themselves on a continuous basis."

The ministry, the College, the school board, and schools need practicing teachers to bring substance to their vision of student competency in mathematics, science, technology, the arts and other subject areas, achieving for those subjects what the literacy program at St. Christopher High School achieved for student reading and teacher involvement in the learning process. Similarly, the findings of this study suggest that teachers need support for their own learning and their commitment to their students, subject areas, and profession if they are to successfully implement the demands of ongoing government reforms.

Teachers in this study had a variety of responses to the multiple reforms initiated by the provincial government to improve education in Ontario. Beginning teachers endorsed what was prescribed. Many mid-career and experienced teachers were opposed to the manner in which the reforms were implemented, to the substance of many of the reforms, and to what the changes meant in the historical context of teaching in the province. Many of the reforms, while acting as a hindrance to teachers' professional development and changes in their practices, also served as a catalyst for informal learning, unlearning, and relearning, and for teachers taking the initiative to seek out their

own professional development and determine for themselves its contribution to their practices.

Summary of the Analysis and Interpretation of the Case Study Findings

Analyses of the findings indicated that government educational reforms had sweeping effects on the culture of the school board and school, teacher-administrator relationships, organizational support, and teachers' acceptance of the Ontario College of Teachers as a governing body for the profession but were tempered to some extent by the religious values held by the school's members.

The data gathered for this study suggest that the reforms played a major role in hindering teacher professional development and prevented teachers from addressing areas of their practices that they perceived to be as important as or more important than EQAO testing. Instead, teachers used informal professional development options in order to cope with new curricula and other changes.

The reforms forced teachers, particularly those in mathematics, English and science, to assess their teaching strategies, content knowledge, and assessment and evaluation policies. The reforms also forced teachers to examine more carefully the teaching profession's relationships with the government, and their own relationships with their administrators and the College.

The incoherence between the school board and the school concerning teacher professional development and changes to teachers' practices stemmed primarily from adoption of the multiple reforms without a clear communications strategy and adequate resources for implementation. The incoherence also was linked to the fact that the school and the school board did not conduct a needs assessment of teachers, did not use human

resources strategically to cope with the multiple reforms, especially leadership in schools, and did not take a leadership role to stem the government tide of reforms. This latter point may have been more wishful thinking on the part of teachers than a real possibility.

The short and long term plans used by the school board and the school to address the reforms were not well thought out. The board offered a wide variety of workshops with little regard for teachers' schedules and reserved consultant services primarily for EQAO and literacy training, while the school used generic professional development at monthly staff meetings. Neither of these approaches addressed the reality of how teachers learn and improve their teaching practices.

In addition, the reforms were initiated and instituted from outside of the profession; they were top-down and designed to be implemented and monitored by school administrators whom the provincial government had strategically separated from the professional organization of teachers. Particularly experienced teachers, based on their intimate knowledge of the profession and their knowledge of past and present reforms, felt obliged and morally justified, based on religious values, in resisting certain policies, such as the assessment and evaluation policy.

A culture of learning was not advanced simultaneously with a culture of change. Teachers relied on their combined classroom and management experiences to develop implementation strategies for the multiple reforms. A culture of learning should entail a commitment to cultivating an experience of growing at the personal level and the institutional level. These findings taken together have implications for the development of future teacher professional growth and development.

CHAPTER 6: DISCUSSION

Teacher Professional Development and Its Impact on Practices

Chapter 1 addressed the conceptual framework for this study and identified the four concepts—adult learning, self-efficacy, collective efficacy, and supervision for renewal—that offer guidance for discussing teacher professional development and teacher learning conditions as well as the institutional context within which teachers function and change their practices.

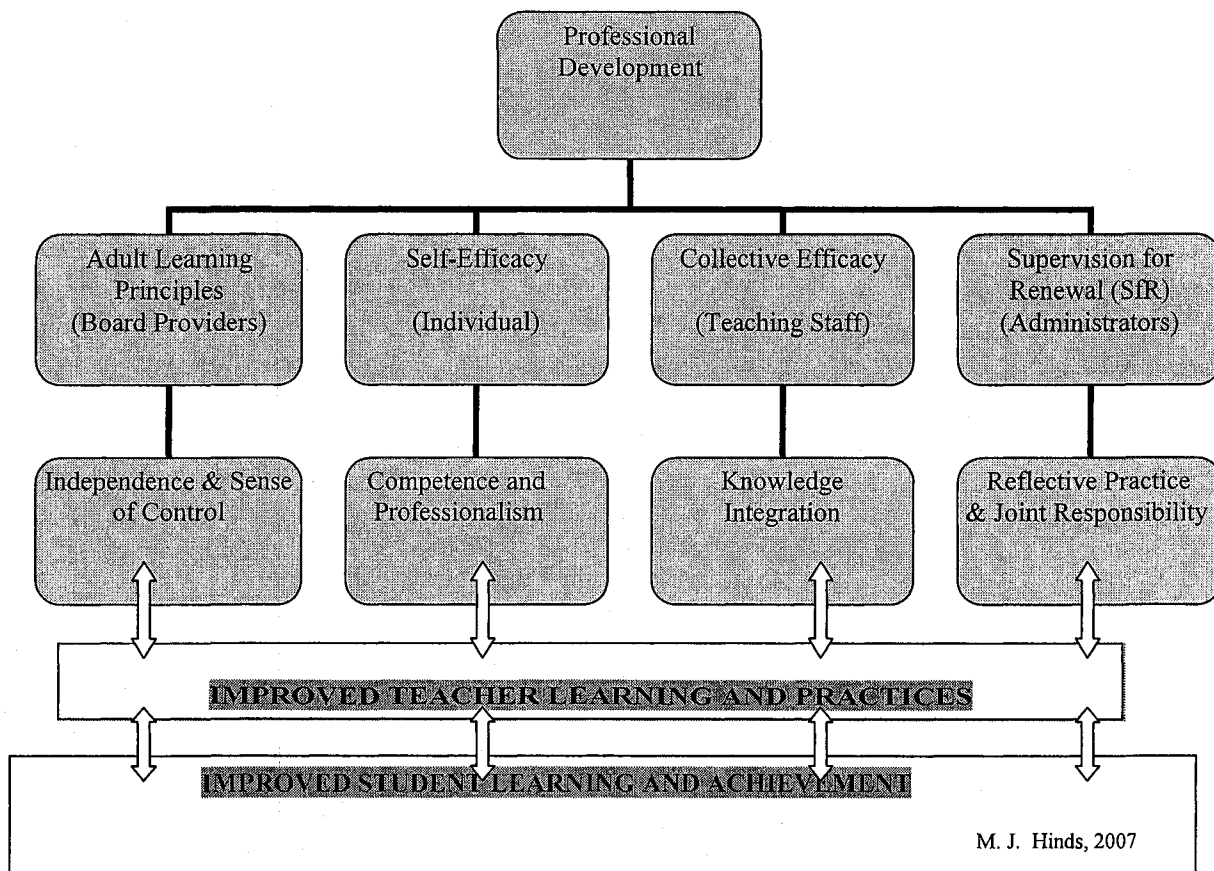
In the first part of this chapter, the study's findings on professional development will be discussed in light of the literature on these four concepts. The implications for teacher professional development will be highlighted. In the second part, the goals of the four concepts, that is, independence and a sense of control, competence and professionalism, knowledge integration, and reflective practice and joint responsibility, will be discussed as they relate to professional development theory and teachers' practices.

Model for Transformational Professional Development

The findings from this study have been constructed as a model found as Figure 9. All of the findings channel into the issue of teacher professional development and its impact on teacher practices. The principles of adult learning, together with the theories of self-efficacy, collective efficacy, and supervision for renewal act as a framework for professional development, are interconnected and form a strong network to achieve more effective professional development. The goals of the framework are not mutually exclusive to a single part of the framework but are considered to be strongly associated with professional development. When the goals are achieved, effective professional

development is achieved, teacher learning and practices are improved and, consequently, student learning and achievement are improved.

Figure 9. Model for Transformational Professional Development



Study Findings and Adult Learning Principles

Adult learning theory presupposes adherence to the democratic principles of 1) setting a cooperative learning climate, 2) involving learners in mutual planning, 3) involving participants in diagnosing their own needs for learning, 4) involving learners in formulating their learning objectives, 5) involving learners in designing learning plans, 6) helping learners carry out their learning plans, and 7) involving learners in evaluating

their learning (Knowles, 1984, pp.15-18). What gives those principles unity is self-directedness or the guidance of a manager knowledgeable in the area of adult learning.

The data showed that in a climate of reform that existed at the time of the study, the school studied found it difficult to provide an effective learning climate where teachers felt comfortable expressing themselves about their learning needs. As the findings indicated, provincial program priorities took precedence over teachers' needs. The Annual Teacher Learning Plan provided an opportunity for teachers to diagnose their own needs, formulate their learning objectives and identify resources. Success in the planning stages of the Plan did not necessarily lead to teachers attaining their stated objectives.

Research confirms that the extent to which the professional development program or activity focuses on subject content is among the key features of professional development (Garet, Porter, Desimone, Birman & Yoon, 2001). Loucks-Horsley (2000) indicated that many teachers come to their teaching without the deep understanding of content and that providing them pedagogical content knowledge will help them understand not only their content but also how their students come to understand that content (p.3). Leithwood, Seashore, Anderson and Wahlstrom (2004) suggested that teachers' pedagogical content knowledge is central to their effectiveness (p.11). The design of professional development at the school and at the school board was flawed because it failed to address teachers' basic needs for content knowledge and pedagogical content knowledge in their respective subject areas. This was particularly true for beginning teachers teaching out-of-field, teachers who were assigned new subject areas, and teachers who believed that their subject knowledge was not up-to-date.

Much of the design of professional development at the school and at the school board was prescriptive; it was incongruent with the principles of adult learning. Professional development needs to give participants some measure of control, in keeping with their capacity for self-directedness, over the what, who, how, why, when, and where of their learning (see Appendix O, Speck, 1996, p.33) until they are ready for independent learning. Based upon the principles of adult learning, providers have a responsibility to help adults in the move from dependency to self-directedness in their learning. This finding highlights the importance of including teachers in the decision-making process concerning their professional development and supporting those decisions of learning will lead to practical, relevant, and useful outcomes for teachers and the students they teach.

Lieb (1991) suggested that in working with adults, “Learning has to be applicable to their work or other responsibility to be of value to them” (p.1). MacKeracher (1996) noted that “if the content is directly relevant to some aspects of what they currently do, then learners are more likely to be motivated to look for connections and develop new meanings” (p.256). Within this study, it was apparent that many of the teachers did not see the relevancy in many of the professional development activities or programs initiated at the school or school board. Aside from the prescriptive professional development that focused on literacy and EQAO testing, other professional development at the school site was generic and not content-based. This finding highlights the importance of using instruments such as the Concerns-Based Model (CBAM), (see Appendix Q), Grow’s Staged Self-Directed Learning model, or Guglielmino and Associates’ (2005) Self-Directed Learning Readiness Scale (SDLRS) to help teachers assess their needs and make

professional development relevant by including approaches and strategies that have a practical application for teachers' practices.

Lieb (1991), Loucks-Horsley (2000), and Speck (1996) indicated that adults will resist activities they believe attack their competence. They need to see a connection between the planned activity and learning objectives if their interest is to be maintained and their learning experience is to be successful. In this study, this principle was manifested through a number of teachers resisting or did not "buying into" the assessment and evaluation reform because there was no framing of the activities to help them understand the purposes of the sessions beyond the fact that it was a provincial government priority. Cook and Rasmussen (1994) recommended that in designing effective professional development it is crucial to identify, understand, plan, carry out, and evaluate change. Guskey (2000) set out a guideline for evaluating professional development (see Figure 7). These findings underscore the importance of professional development having a framework so that each stage of the learning process can be addressed in an informed manner.

On a number of occasions teachers in the study made reference to the mismatch between their learning styles and those used by people who were providing professional development sessions. This mismatch in learning styles was clearly articulated by teachers who were attempting to learn computer skills or work with media. Lawler (2003) noted that such experiences influence teachers' perspectives on future educational events, including their motivations to engage in professional development activities (p.16). Merriam and Caffarella (1999) emphasized the importance of understanding learning styles and encouraged providers to find strategies to incorporate learning activities that

are interesting. This finding implies that professional development providers should incorporate an understanding of learning styles, teachers' backgrounds, experiences, and professional development goals into the design and delivery of the professional development program.

Teachers in the study, particularly mid-career and experienced teachers, wanted continuous improvement in their practices, not standardization. They wanted a greater affiliation with universities, business, and other partners that could facilitate their learning and the learning of their students. Lomax (1999) pointed out that the voices of teacher researchers are largely missing from the field of research on teaching and suggested that teachers from schools needed encouragement to share their ideas in scholarly forums and to stand firm in their criticism of what they see as inappropriate ways of addressing schools' knowledge. Cochran-Smith (2006) suggested that universities also need to work with teachers because "It is not enough for beginning teachers to learn the basic skills of managing classrooms and well-crafted lessons...part of the task is teaching "against the grain" (p.16) of standardization. What Cochran-Smith advocated and what a number of teachers in this study wanted was the university and school to collaborate to "challenge common practices, and engage in inquiry to alter the life chances of children" (p.16). This finding draws attention to teachers' limited access to intellectual resources and the need to form collaborative relationships that offer meaningful intellectual, social, and emotional engagement with ideas, with materials, and with colleagues both in and out of teaching environments.

Another issue brought to light in the study was the low rating given to professional development by experienced teachers. Some of the teachers used the term "old school" to

refer to themselves. One possible explanation for the use of this term is that teachers believed that their way, gained from trial and error over a substantial number of years, was a better way of approaching student learning and assessment than the changes advocated by the provincial educational reforms. Some teachers also may have believed that based on past experience the reforms would soon be subject to change; they therefore did not see the need to invest an inordinate amount of time in such matters. Two administrators used similar terms to “old school” to note some teachers’ learning strategies were inappropriate for the types of learning they now needed to have. This finding suggests that there is a need for professional development providers to go beyond content delivery for certain groups of teachers and to focus on the process of how to learn. Radloff (1990) found that learning how to use new learning strategies in a self-regulated way “facilitates the process of lifelong learning, which is a prerequisite for increasing productivity, improving work quality, and enhancing worker satisfaction” (p.5). Putman and Borko (2000) and Stiggins (2002) had similar findings.

Study Findings and Self-Efficacy Theory

Standing at the core of social cognitive theory are self-efficacy beliefs, “people’s judgements of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391). In the case of the provincial educational reforms, teachers in this study believed that there were too many reforms, and teacher professional development was fragmented. The prescriptive nature of their professional development and the inadequate information and resources to implement the reforms often left teachers with doubt as to their ability to influence or

bring about change that was “in the best interest of their students.” Ross (1998) noted that teacher efficacy is enhanced when teachers have greater control of their workplace” (p.56). This finding suggests that for an educational system to improve, teachers need to receive adequate information about reforms, and to question reforms in public fora in order to be able to make informed decisions on the benefits and drawbacks of the various reforms.

Consistent with theoretical and empirical research by Tschannen-Moran and Woolfolk Hoy (2001), this study found that there appeared to be a relationship between efficacy and status. Teachers who were in higher status positions at the school, such as department heads and teacher leadership candidates had a stronger sense of efficacy than teachers who occupied lower status positions. Since a positive sense of self-efficacy represented a 28% increase in task performance (Stajkovic and Luthans 1998), this finding has practical implications for managing today’s human resources in schools. This finding suggests it is important for schools and individuals responsible for teacher professional development to examine the manner in which new teachers are prepared for entry into the profession and to find ways to enhance efficacy for all teachers who occupy lower positions in the school.

Self-efficacy beliefs also help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations (Pajares, 2002). In this study, highly qualified and motivated female experienced teachers believed that their experience was not valued and that professional development and qualifications had little impact on their promotional prospects. From teachers’ perspectives, their self-efficacy beliefs were

weakened by negative appraisals by supervisors. Other motivated experienced teachers spoke of the need to diversify the profession as a way of renewing teachers' motivation.

Maurer (2001) as well as Peterson and Spiker (2005) stated that there is a need to address negativity surrounding older workers, particularly their learning ability and the value of their experiences. In addition, Lortie (2002) observed that "the workplace is not organized to create inquiry or to build intellectual capital for the occupation (p.56) and noted that "compared with most other kinds of middle-class work, teaching is relatively "career-less" (p.84). This finding suggests the need for the ministry of education and the school board to examine their policies on teacher careers and to address the major facets of agency, the nature and structure of self-efficacy beliefs, their origin and effects, and the modes by which they can be created and strengthened.

The debate at the school by a number of beginning teachers who wanted "pay for performance" indicates that the altruism and intrinsic rewards that are traditionally associated with teaching may not be sufficient for retaining beginning teachers. The implication is that research and discussion on alternative teacher compensation systems need to occur. Good starting points for such a discussion may be Ballou (2001) and Dinham (2007) who believe that professional competence, professional accomplishment and professional leadership provide a means to rethink incremental salary scales, that is, replacing seniority- based salary with performance- based pay scales and Adnett (2003) who posits merit pay reforms "are likely to alter teacher behaviour towards greater conformity with the objectives of heads, they are also likely to weaken beneficial cooperation and compliance with the profession's prevailing code of conduct" (p.146).

Study Findings and Collective Efficacy Theory

Collective efficacy is defined as “a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainment” (Bandura, 1997, p.477). Collective efficacy also refers to or is associated with higher group aspirations and motivational investment in a group’s tasks, stronger staying power in the face of impediments and setbacks, higher morale and resilience to stressors, and greater performance accomplishments (Bandura, 2001). For schools, collective efficacy refers to the perceptions of teachers in the school that the faculty can organize and execute the courses of action required to have a positive effect on students (Goddard, 2004).

The study’s findings indicated there was a strong belief among staff members that they could affect students’ reading habits and increase EQAO scores in literacy. Despite a few setbacks with software and some displays of resentment concerning the allocation of resources to the literacy initiative, the literacy committee used strategies such as teachers as author, photo opportunities with the author, and students leading students to keep the literacy momentum going. The concerted effort by the staff resulted in substantial gains in student achievement, changes in student attitudes towards reading, and in student borrowing of books from the library. There was staff cohesiveness surrounding this program. There was less variance in responses from members in the English Department (English, Arts, Music), to the literacy program than from teachers in other departments; this indicated a greater shared sense of efficacy, as compared to the more heterogeneous responses from teachers in other departments. This finding has implications for understanding the antecedents of collective efficacy. Professional development providers

and researchers can use this information to better understand school team training, teacher learning, and student achievement.

Research has shown that professional development programs that provide teachers with opportunities to talk, think, try out and hone new practices facilitates increases in knowledge and skills, and changes in teaching practices (Desimone, Porter, Garet, Yoon & Birman, 2002b). To find time for such practices, Abdal-Haqq (1996) recommended restructuring the school calendar, using permanent substitute teachers and scheduling common planning time as ways of dealing with the time crunch. Within the study, on a consistent basis teachers stated that heavy workload, cost of professional development, and time allocated to professional development were barriers to quality professional development. There was no time to dialogue, debate, or engage in discussions that affected their teaching and learning. This finding indicates the need for policy changes concerning the amount of time allocated to professional development. The findings also suggest that facilitators of professional development need to create a climate of mutual respect and provide an environment that encourages teachers to participate and take an active role in their learning.

Collective efficacy also refers to each individual's assessment of his or her group's collective capability to perform job-related behaviours (Goddard, 2004). Some teachers in the study expressed doubt in the group's collective capabilities to have a consistent approach to assessment and evaluation, and judged the group's capacity to integrate technology and mentor new teachers as weak to moderate. Some beginning teachers also expressed doubts concerning the ability of some experienced teachers to bring about change in student performance. Some experienced teachers expressed doubt concerning

the ability of beginning teachers to teach the whole child. These findings highlight the importance of finding out what teachers believe prior to establishing school committees that affect student learning and evaluation. As Bandura (1995) noted, “The task of creating environments conducive to learning rests heavily on the talents and self-efficacy of teachers” (p.19); therefore, even if individual members are capable and their self-efficacy beliefs are high, low confidence in the group’s capacity for collective action may still inhibit not only collective action but community dialogue as well.

School board consultants are often considered a fundamental part of a school’s Human Resource Development program. A large number of teachers and administrators who participated in this study eschewed the presence of consultants in the school. These teachers and administrators expressed doubt about the ability of board consultants to bring teachers to a better understanding of government policies and their implementation process. This finding draws attention to the fact that providers of professional development for teachers need to have adequate knowledge of their topics, have some background in education, and realistic expectations for what can be accomplished in schools. It also suggests a benefit to being situated in the same or a similar environment, as noted earlier.

Collective efficacy also is believed to be influenced by different types of leadership. Findings from the study indicated that teachers often respected their administrators’ abilities to attract talented staff, obtain resources, and keep the staff cohesive. In referring to transformational leadership, Burns (1978) wrote, “I define leadership as leaders inducing followers to act for certain goals that represent the values and the motivations—

the wants and needs, the aspirations and expectations—of both *leaders and followers*” (p.19), [Italics original]. Prussia and Kinicki (1996) found that transformational leadership is a possible mechanism through which collective efficacy may be enhanced, which in turn influences group outcomes. The findings of these researchers are similar to those of this study. In the case of the literacy initiative, administrators acted as facilitators for teacher and student learning. Administrators often used the phrase “at this school, everyone’s a leader” and teachers were expected to demonstrate their leadership skills by publicly sharing their knowledge and by leading committees. Many teachers at the school expressed confidence in and satisfaction with various aspects of school leadership (a safe and orderly school, community service, partnerships) and all teachers participated in various forms of professional development, even when no records were kept or they were no longer mandated to do so by provincial law. The head administrator at the school was a mild mannered soft-spoken man. He did not consider himself as the instructional leader of the school. He perceived his work as service leadership with a focus on self-discipline. To some extent, this study found as did Ross and Gray (2006b), that transformational leadership had direct and indirect effects on teacher commitment to the school mission and on commitment to a professional learning community. This study differed from Ross and Gray in its findings in that distributed leadership appeared to have a direct effect on teacher commitment, student performance, and administrators’ confidence in the teaching staff as evidenced by the Literacy program’s results, that is, the EQAO scores moving from 70% to 93% in one year in the school in this study.

Study Findings and Supervision for Renewal (SfR) Theory

With the involvement of the provincial government in monitoring school improvement efforts, supervisory responsibilities have increasingly encompassed the tasks of: a) mentoring or providing mentoring for beginning teachers to facilitate a supportive induction into the profession; b) bringing individual teachers up to the minimum standards of effective teaching; c) improving individual teachers' competencies; d) working with groups of teachers in a collaborative effort to improve student learning; e) working with groups of teachers to adapt the local curriculum to the needs and abilities of diverse groups of students, while at the same time bringing the local curriculum in line with provincial and national standards; and f) relating teachers' efforts to improve their teaching to the larger goals of school wide improvement in the service of quality learning for all children (Roher & Wormwell, 2000; Starratt, 1999). The findings of this study indicated that teachers are being held accountable for increasing their students' test scores; on the basis of these scores, judgements are being made about their competency. Moreover, when the results of the test scores were published in the newspaper it had the effect of comparing schools solely on the basis of the test results. The school test data indicated that in the case of literacy the school performed well above the set provincial standard; in the case of mathematics, the school performed well below the provincial standard. Many teachers felt demoralized by these processes. This finding suggests the need for policy makers to take into consideration the complex realities of the classroom and to take the responsibility for providing the necessary support systems needed to develop in-school capacity to implement reforms.

Research generally indicates that professional development that focuses on how students learn is more effective than professional development that focuses on teacher behaviours (Kennedy, 1999), yet supervision continues to focus on teacher behaviours. If the purpose of professional development is to promote student learning and promote professional growth, then there needs to be more emphasis on the study of teaching and learning (Blase & Blase, 1999). This study indicated a divide between administrators who viewed knowledge as something to be delivered, and those who approached knowledge as something to be constructed and performed by learners in a realistic context. This finding speaks to the need for administrators to keep themselves up-to-date with developments in education, such as the use of constructivist methods in teaching, and to use open dialogue about improvements in teaching with teachers, so that the administrators can relate effectively to the instructional needs of teachers and promote improvement in education.

Both teachers and administrators in the study suggested that supervision of teachers does not need to be standardized, and that not all teachers need to have the homogeneous Teacher Performance Appraisal "checklist." As was evidenced in the findings, a number of teachers were at different phases in their development and were able to make a variety of contributions to different facets of school life. This finding suggests that the bureaucratic and legal practice of supervision which is formalistic needs to be changed. Two of the three administrators in the study advocated deferring supervision of instruction to department heads. The third administrator, a female and a specialist in mathematics and science, believed in mentoring and coaching those teachers who were new to the profession but stated that there was no time to attend to the needs of all staff.

This finding highlights the need for policymakers to consider alternative forms of teacher supervision such as peer review, teacher portfolios, action research, or combinations of these approaches. In large schools such as the one in this study, the reality of student supervision and other staff supervision is seldom discussed in the literature, yet it is part of the supervision that administrators have to include in their daily activities.

Theory and Practice Outcomes

This second part of this chapter discusses independence and a sense of control, competence and professionalism, knowledge integration, reflective practice and joint responsibility as they relate to professional development theory and teachers' practices. The section will conclude with some thoughts on the impact of professional development on teachers' practices.

Independence and Sense of Control

When the principles of adult learning are employed in professional development programs, teachers can move from being dependent learners to being independent self-directed learners (Knowles, Holton & Swanson, 1998). As such, they often more readily apply new learning to real-life problems (Merriam & Caffarella, 1999; Macleod & Golby, 2003). However, as Candy (1991) pointed out, "a learner's autonomy is likely to vary from situation to situation," and educators should not assume that because a person is self-directed in one situation; "he or she will be able to succeed in a new area: Orientation, support and guidance may all be required in the first stages of a learning project" (p.309). Independent learning is a goal that teachers have for students; it should be no less of a goal for teachers themselves (D. Hargreaves, Leask & Hopkins, 1991). By

the tenets of theories concerning professional development, many teachers in the study did take control of their own professional development, found resources, and worked to bring about changes in their practices as evidenced in Table 7.

Competence and Professionalism

Teachers involved in this study experienced positive self-efficacy when they saw themselves in leadership roles, which in turn helped determine the level of effort they expended to achieve their goals. However, the concept of self-efficacy needs to be understood and addressed by schools and by providers, not as an unchanging variable but rather as a variable that *can* change with new contexts, new structures, new problems, or new stages or phases in teachers' development. Therefore, personalization of instruction could be a useful approach to learning. Zimmerman (2000) noted self-efficacy is an essential motive for learning and holds significant power for predicting and explaining performance in various domains.

Knowledge Integration

Teachers in the study did what they believed they could do collectively, that is, raise the test scores of students in the area of literacy. They believed that the common goals and the social cohesion they experienced during the implementation of the literacy initiative also impacted on their ability to operate as a team in other areas. Collective efficacy may offer the added advantage of using a common lexicon for discourse, as was the case of the literacy program described in this study. This common vocabulary could in turn result in knowledge integration that could benefit the whole school. Ross and Gray (2006a) found that "principals' influence on teacher willingness to engage in

community partnerships occurred through collective teacher efficacy, rather than through attempts to influence teachers' community commitment directly" (p.812).

Reflective Practice and Joint Responsibility

King and Newmann (2000) contended that for professional development to be effective, teachers must be supported to exercise their individual knowledge, skills and relationships within the professional community to advance the collective work of the school through programs for professional learning. In the study, both mid-career and experienced teachers as well as administrators perceived a need to focus on knowledge and skills but at the same time to go beyond examining knowledge and skills and jointly focus on professional behaviour and the reasons for the behaviour. Hence, when supervision changes from a situation in which teachers are inspected and their professional development controlled by administrators or a school board to a situation in which administrators are mentors, the effects on practice could alter substantially teachers' commitment to improving their practices. Lyle (2003) argued that "higher education should take a lead in supporting the promotion and dissemination of teacher research because it has the potential to support teacher development, and transform practice in schools and classrooms" (p.295).

Linking the Model's Constructs

The principles of adult learning together with the theories of self-efficacy, collective efficacy, and supervision for renewal have the potential individually to affect teachers' professional development and have a positive impact on their practices. However, if the four constructs were combined, they might infuse the system with the possibility of

transforming itself from a “teacher training” model to a “teacher learning” model that possibly would have a greater impact on student learning and achievement.

For many teachers, the reforms and policies of the past ten years carried concerns of being de-professionalized. Freidson (2001) suggested that this de-professionalization has occurred in the medical, legal and other professions. He noted that what has been seriously undermined in professions is the “ideology that claims the right, even the obligation, of professionals to be independent of those who empower them legally and provide them with their living” (p.220). He commented that “[w]hile they [professionals] should have no right to be the proprietors of the knowledge and technique of their disciplines, they are obliged to be their moral custodians” (p.222). Using the four constructs discussed as a foundation for professional development means more than adhering to the standards of practice for the profession; it means participating in meaningful self- and peer-review and critical reflection. Over 80 percent of the teachers in the study believed that they had a responsibility to help develop not only the cognitive abilities of their students but also their social, emotional and spiritual capabilities. Fifty percent of the experienced teachers in the study suggested that, although they did not have the latest technological skills, they did have a wealth of experience that provided them with insights into student learning that were not being acknowledged or used to generate knowledge in the profession. Whitehurst (2004) indicated evidence-based research should include teachers’ experiences and wisdom (see Figure 5).

Many of the comments by teachers, as reported in Chapter 4 attested to teachers’ sense of loss of control over their own decision-making and judgements, particularly in areas such as curriculum and assessment and evaluation of students and their own

learning. One administrator suggested that whereas the majority of his staff were accepting or struggling with the student assessment and evaluation policy because they were involved with its formulation for their school, he knew of other high schools where teachers were rejecting the policy. Such a statement by a senior administrator indicates a need to find out if other schools are rejecting the student assessment and evaluation policy, and if so, why.

Providing professional development that employs the four constructs noted above would lessen teachers' fears and anxieties about the when, where and how of professional development because teachers would have a fairly stable environment for interaction with other professionals. Providing professional development that employs the four constructs would provide teachers with the opportunity to re-construct themselves and the profession to meet new challenges and change the public image of teachers as incompetent or less than professional to one that sees teachers as competent and concerned with the common good of education.

In order to make the necessary changes, teachers, governments, and their representative groups will require support to change attitudes and beliefs to realize a new vision of schools as places where everyone learns and attempts to apply their learning. Using the constructs together may help establish a base for teacher growth and development, encourage teachers to use research and examine their practices, and move teachers to the next stage in their development.

Moving Toward Coherence

In addition to the four constructs, the structures, the providers of professional development, and teacher motivation need to be closely examined. Currently lack of time, lack of money and lack of space are often put forward as reasons why schools are unable to implement research-based professional development. When school boards make a commitment to collective teacher development and consider their actions as *an investment* rather than as an *expense*, there is a greater possibility that school capacity for learning and applying that learning will occur. Similarly, at the present time, some providers of professional development expect teachers to come early, stay after school, spend some Saturdays or perhaps part of their summer in order to achieve gains in student achievement. As mentioned earlier, teachers and their practices are at the heart of professional development; school boards and their providers, therefore, need to place greater value on teachers' time.

The literature indicates that teacher motivation and experiences can be affected negatively by factors such as mandated professional development, multiple reforms without adequate resources for implementation, or an inappropriate level of supervision. Motivation can also be affected positively by factors such as gaining autonomy, receiving feedback for a job well done and the daily satisfactions of reaching and changing students (Fenwick, 2000; Hammerness, 2006; & Zimmerman, 2000). This study found evidence that is consistent with the findings in the literature.

Hargreaves (2003) argued that a "knowledge society" requires conducting a knowledge audit, managing the process of creating the knowledge, validating the knowledge, and disseminating the created knowledge. At present, there appears to be

limited evidence at the school board and school to support these outcomes. In many cases, teachers, particularly those in large schools, as was the case in this study, do not know their fellow teachers and have little idea of the talents and skills that are present in their work environments. In many schools, administrators do an initial survey of professional development courses or other formal learning that teachers engaged in each September. That information generally is filed away and, therefore, is not useful to the school as a community.

The process of managing and creating knowledge seems to be seen as managing information on those things that pertain to students and not to those areas of learning that pertain to teachers. For example, many teachers create modules for their courses; that form of new knowledge, however, tends to stay in their classrooms and may or may not find its way into the hands of other teachers in the school or family of schools. Seldom is there any attempt to centralize those modules, learning games, or original approaches to learning so other teachers can use them. Instead, there seems to be a “re-invent the wheel” syndrome prevalent in many schools. Similarly, in the case of action research projects, when knowledge is created in the form of programs, development of software for student and teacher learning, or manuals for any number of activities, that knowledge is rarely disseminated. Teachers need a centralized system that accepts and distributes teachers’ contributions to the field of teacher professional development; teachers themselves could use peer reviews as do other professions for assessing these materials.

It will require a new way of thinking about how teachers perceive, use and record professional development in order to effectively transfer teacher learning from professional development into the classroom and so increase student learning. Ross and

Gray (2006b) suggested that the principal's role offers a variety of opportunities to improve the agency beliefs of staff. They suggested that principals should overtly influence teacher interpretations of school and achievement data, help teachers identify cause-effect relationships and link their actions to desired outcomes, help teachers set feasible, proximal goals to increase the likelihood of mastery experiences, provide teachers with access to high quality professional development, and provide constructive feedback on their skill acquisition (p.193). Following these recommendations may help some teachers further develop their judgment skills, content knowledge and instructional methods. Fifteen percent of the teachers in the study said they successfully applied their professional development training to their classrooms. Sixty percent of the teachers said they were in the transition stage of moving from former practices of assessment and evaluation to the new policies mandated by the provincial government, and twenty-five percent said they were awaiting the time and opportunity to move to a learning-culture that could transform them as learners and their practices. While this latter attitude appears to be a very passive one, teachers believed that for real change to materialize, adequate support must accompany the pressure exerted upon them and their students (see Figure 6 for conceptualization).

The Learning Culture of Teachers

Changing from the present culture that appears to value only training to a culture that values growth or renewal (which is referred to here as a learning culture) requires not only a change in attitude, it also requires the adoption of strategies and mechanisms that embody principles that are in harmony with the way many adults learn. It requires

reconciling the external, internal, and personal agenda of persons involved in the professional development of teachers. This new approach will take considerably more time than do the existing training programs and it will require revisions to existing professional development programs and assessments of new professional development programs during their implementation stages. This work is required in order to bring about meaningful change. As Lave and Wenger (1991) suggested, learning is situated in practice, where participants learn from each other through participation in a “community of practice.”

For the sake of argument, let us assume that teachers had sufficient information on the features of high quality professional development, such as that found in the long-term studies carried out by Cohen and Hill (2000), Garet et al. (1999) and, Hill and Ball (2004). These studies noted the following features of high quality professional development: it focuses on content knowledge; has an emphasis on active learning; seeks to promote coherence; makes the provision for a large amount of training sustained over time; and encourages collaboration among teachers. Let us also assume that there was a consensus view on professional development as suggested by Elmore (2002), that the purpose of professional development should be anchored in student learning of core disciplines and that skills and classroom assessment and evaluation should be used for active monitoring of student learning and feedback on teacher learning and practices. Even with such understanding and consensus in place, there still would be major unresolved issues concerning the social and moral nature of professional development.

In trying to create alternatives to the training models, let us first consider the political or external agenda. Many teachers, as evidenced in this study, have been conditioned by

the centralized tradition of professional development. Teachers' autonomy has been limited over a number of years, and ingrained attitudes now exist concerning who directs their learning and who controls their professional judgment. Beginning teachers entering the profession have been conditioned by a more decentralized relationship with professional development and consequently have different expectations from those experienced teachers who have been subjected to the past ten years of government reforms. Similarly, those designers and providers of professional development, including administrators who come from a centralized approach tradition, may experience difficulty in un-learning their old patterns of thought and learning how to apply adult learning principles to their teaching of adults. Program designers and providers with a business orientation may lack insights into what and how the culture of schools differs from the culture of businesses. Professional development needs to extend beyond support for teachers' acquisition of new skills or knowledge. There are few opportunities for teachers to unlearn, try on learning, and relearn before they work with students in the classroom.

On the social or internal level, moving from a culture of training to a culture of learning also presents problems. With this shift in thinking and operating, schools and school boards will be forced to focus on individual needs as well as group needs. Individuals in turn will have to recognize and encompass the needs of the school and the school board within their overall professional development planning. Issues that arise from the differing perceptions on the part of the schools and boards versus those of individuals will present problems of adjustment in the short term.

On the moral or personal level, moving from a training culture to a learning culture will require each individual involved in education to re-examine the purposes of

education and of professional development. Teachers will have to examine the ethics of their behaviour in relation to their learning and how their learning affects not only students but also their colleagues and the profession as a whole. Miller and Nakagawa (2002) raised concerns about the ability of schools to develop individuals who can compete in a global economy compared to their apparent inability to develop individuals who possess deeper and the more lasting values of wisdom and compassion. The authors argued there is a need to reconsider the purpose of education and by extension the purpose of professional development. They suggested visions of wholeness and spirituality are needed.

Teachers have to play a role in changing the culture of professional development from one of training to one of learning and from one of measuring to one of ongoing assessment. The difference in these two approaches is that the former focuses on the end product and its immediate application, and the second focuses on the process and learning from ongoing feedback. In a training culture one can easily count how many participants attended a session. One also can use surveys to collect data on teachers' views. These methods are valuable in their own right (see Appendix P and Figure 4). However, if we are to discover the effects of professional development, we need to examine the evidence in a different way, in something other than a monetary or political light. Teachers, together with their schools, school boards, and governments, need to think of professional development in terms of building a better society that has a social conscience. To arrive at that end, professional development must be assessed along more than one trajectory. As Macleod and Golby (2003) suggested, there is no substitute for critical inquiry in the educational setting itself. While psychological, philosophical, and other theory can

provide potential frameworks for teachers' own analyses of their work, it is only in the practical context that the issues have full meaning for them. This can be practically realized through the individuals use or the professional development providers use if computer software programs designed for such purposes.

What was missing from teachers' learning agenda at St. Christopher High School was time for inquiry into practice, time to dialogue, and the structural arrangements that allowed Grades 7 - 8 teachers to collaborate with Grades 9-12 teachers on a daily basis. Much of the power for professional development was concentrated in the hands of the school board, which controlled the resources, and in the hands of the school administrators, who approved the professional development. This being the case, it could be argued that no amount of belief in personal capacities could make a difference if the resources and climate were not conducive to promoting teacher learning. The schools, the school boards, and the Ministry of Education all need to listen not only to the concerns that teachers at all levels of experience expressed, but also must find ways to help teachers keep alive their commitment to students and to their own professional growth and development.

There is an assumption on the part of decision-makers that there is a continuum of professional development that begins in the faculties of education and continues in the classrooms. This project found evidence that universities need to do more to improve their programs and to extend their follow-up with their graduates as they enter the school systems. The study also found that the types of professional development offered to teachers at universities often did not match teachers' needs. If the overarching goal of professional development is to improve learning for students *and* teachers, then it follows

that there needs to be an alignment between student needs, teacher needs, and professional development. In the views of teachers, there also needs to be a closer connection between their commitment to student learning and policies that are committed to their own professional development.

Judging from the number of teachers in this study who participated on a voluntary basis in professional development over the five years preceding and during the study, one could conclude that most teachers have a high level of commitment to their own learning and to the students they teach.

Teaching takes place in a context that is in a constant state of change. Forces both within the school (such as report cards) and external to the school (such as the ranking of schools) are impacting on the school classroom continually. Before teachers are willing to talk openly and honestly about their needs and the needs of students they teach, they want to know that the person carrying out the supervisory role understands what it is like to be in the classroom and has realistic expectations of what can be accomplished in a given timeframe.

Supervision which is sometimes equated with mentoring through a computer checklist does not inspire teachers to improve their practices. Achieving coherence among policies and documentation processes used by the ministry, school boards and individual schools is an ongoing process, but coherence should not mean uniformity. It should mean common purpose and striving for a common understanding.

The digital era has shifted knowledge and understanding for some teachers to an interactive, global, anytime, anywhere, multimedia experience with countless sources to explore; it also is true that such experiences are time-consuming, expensive, and require

skill sets that many teachers want but are not able to access in a meaningful way. Some teachers wanted people to encourage, inspire and offer them constructive feedback. Here is where supervision can play a significant role in helping to renew teachers' energy and commitment to the teaching profession.

If supervision were to be interpreted more as improvement and joint planning for direction rather than control and command, it would be more in keeping with the visions that many teachers have for their learning and might well contribute to teacher practices. Quality of support plays a significant role in teachers being able to contribute back to the profession. The widely-held assumption that teachers operate in an environment that focuses on *teaching as knowledge- in- action rather than action-in-knowledge*. This assumption needs rethinking, since many teachers consider themselves to be knowledgeable and competent in one or many areas such as subject content, student social and emotional skills, or planning and execution of learning and evaluation processes. Sometimes no person other than a teacher has this specialized knowledge. Better means need to be found to encourage teachers to make public their special areas of expertise and interest. In these matters, the schools could take some direction from the universities, which through the Internet have made explicit the areas of specialization and expertise of their staff members.

Just as the Internet is ubiquitous, globalization is now part of teacher and administrator reality. In all likelihood, various types of competition among countries, including academic achievement through student testing, will continue and standards and expectations for teacher performance will increase. Teacher professional development needs to encompass both training and education. The purpose of training is to improve

performance. Administrators will be expected to aim for higher performance on tests or use test results and similar data to “turn their schools around.” Supervision for renewal with a focus on peer-review, especially for experienced and competent teachers, can help teachers emerge from the isolation of their classrooms and work in partnerships or teams, marked by collaboration among peers. Such initiatives will have tensions and costs, but they also may have the potential of renewal for the profession. With many new teachers finding themselves having to take on leadership roles early in their careers, supervision that mentors rather than finds fault is essential. Teachers need to have a meaningful part in supervision. They need critical friends. These critical friends need to encourage, give advice, and foster a spirit of professionalism that sustains or helps to further establish the teacher as a professional.

The teachers and administrators involved in this study saw renewal through professional development as more of an individual undertaking than as a school or district undertaking. The exception was the sense of accomplishment and renewal expressed by the teachers when they were informed that the school’s EQAO literacy results had moved from 70% to 93% in one year.

Training and education may be complementary to one another even though they have different purposes, and it may be advantageous to teachers and organizations to adopt this kind of thinking to a greater extent. Teachers need training to keep their skills and knowledge up-to-date. Even if training is on-demand where teachers can access video modules from their desktop, they also need education. Teachers need opportunities where they can engage in critical reflection, actively debate, and discuss and exchange their specialized knowledge of the principles and methods of teaching with their colleagues.

They also need to question the subject matter they are teaching and what they are measuring and for what purposes. Furthermore, teachers who are ready to embrace a constructivist approach to their own development need to provide continuous feedback to providers of professional development on designs and implementation strategies. They also need to be conscious of their professional responsibility to take an active role in designing, implementing and evaluating their own professional development.

Transformational Professional Development

For many teachers and administrators, professional development and teaching practices are two separate conceptual entities; in reality, they are inextricably linked. Developing understandings of the relationship between professional development and practices is an ongoing challenge. If schools and school boards offer uniform programs of professional development, they will not be capable of fostering creativity and innovation. If on the other hand, they place no limits on the types and durations of professional development activities, programs and projects, they risk the rapid depletion of limited resources. Decisions that are made concerning professional development, both by teachers and organizations that “supervise them,” are of socio-cultural importance. Professional development will and must keep evolving. In order to achieve sustainable growth and change, teachers need to take an active role in monitoring and documenting their development, engage in experimentation and research, and demand the time and support from the overall system for those activities. What actually constitutes professional development, and to what degree it has an impact on their practices, remains open for examination. A fundamental issue for future studies is the future role of

professional development in the development and growth of teachers and in the resulting improvement of their schools.

Day and Sachs (2004) made the following observation about the future shape of continuing professional development. They argued that:

identifying teachers' agendas is crucial to learning and change; that teacher learning needs to be inquiry base oriented, personal and sustained, individual and collaborative, on and off site; that CPD means a range of learning opportunities appropriate to needs and purposes; that these need to be supported by school cultures of inquiry and be evidence based, where evidence is collected and interrogated which acknowledges the complex worlds of teaching and learning, teachers and learners; and, that if it is to be effective its direct and indirect results need to be systematically evaluated (p. 26).

The school and school board in this study addressed a number of the areas mentioned by Day and Sachs. Professional development was on and off site, it was individual and collaborative, and it included a range of learning opportunities. However, there are a number of areas that need to be addressed in the future, including identifying teachers' agendas, supporting teacher learning that is inquiry base oriented, and evaluating direct and indirect results of professional development.

This study found that teachers identified their learning needs in their Teacher Annual Learning Plan and administrators need to see these as signals that teachers need time and resources to accomplish their identified goals. Some teachers said they did not take the Teacher Annual Learning Plan (wherein teachers' identify their needs) seriously because they believed that administrators did not read them and therefore no resources would be

forthcoming to help put their plan into action. The study found that professional development in the school was most often presented in a didactic manner. Administrators and department heads decided upon the agenda, upon what teachers should know or be exposed to, and what teachers should do. Collecting data on teacher participation in professional development or evaluating professional development sessions was not part of the culture of the school. The study also found that student learning was carefully analyzed and that administrators worked collaboratively with teachers particularly to identify students at risk and to put interventions in place to address student needs.

Substantially strengthening teachers' opportunities to learn and to improve their teaching will require nothing less than a change in the underlying structure of professional development, new conceptions of how teachers learn, a reallocation of time and resources, and new professional cultures in schools and school districts. The old patterns of expecting learning to be delivered, feeling the need to apply information right away, being motivated by filling a gap, and relying on colleagues or experts must give way to being part of a hands-on learning process (with proper orientation), balancing training with education, learning for the sake of interest (depending on the stage of development), and balancing expert advice with knowledge of teachers' own preferences.

Professional Development and Determinants of Effectiveness

Teachers' comments are an important measure of evaluating the impact of professional development upon their practices and are of central importance because they literally make visible to the teacher what learning has been internalized and what has been embedded into their practices. Burchell, Dyson and Rees (2002) argued that

teachers' self-reports "form the bases on which unique individual patterns of professional learning and development, and the potential for impact, can be identified" (p.220).

Today's accountability demands more and more that student achievement be the focus in evaluating teacher professional development (Darling-Hammond, 1999; Dufour, 1998; Joyce & Showers, 2002). While few researchers make a case for teachers' individual learning needs, I take the position that improvement begins with the individual teacher. Using an individual-oriented approach does not subjugate the needs of the school to the needs of the individual teacher; the two are interdependent, as was evident from the comments of teachers involved in the study. Student learning will improve only when teachers have the necessary support for their own learning and real growth options for their careers (A. Hargreaves, 2006). Beginning with the individual teacher will ultimately relate back to improvement in the learning process and in student achievement.

Most teachers, given the necessary skills, time to reflect, dialogue and enough opportunities to learn, will move naturally from ideographic to nomothetic assessments of professional development and practices and bring with them ideas of how the effects of professional development should be assessed. For many of the teachers involved in the study, defining the effectiveness of professional development and its relationship to their practices was subjective. Those who were involved in action research or other forms of short-term studies suggested that their studies would produce findings that related to their particular subject, their students, and their situation. They believed such outcomes were relevant, informative, and above all, of direct use to them as they applied their knowledge and skills to help students, other colleagues, or the school board.

Effectiveness as it pertains to professional development for these teachers did not include issues of scalability and cost-benefits, nor did it include concerns about the degree of transformation in practices or the number of teachers influenced. Teachers' interviews indicated that the perceptions of effectiveness, just like the perceptions of professional development, were subjective. As Table 7 shows, where teachers' responses are individuated, some teachers showed a preference for certain types of professional development. They collectively found professional development to be effective when they could acquire new skills, apply their creativity, share their knowledge, consult or network with colleagues or experts, and receive feedback. On the other hand, as shown in the findings in Table 6, they dismissed professional development that had too high a cost, did not have a practical component to it, did not allow for their input, or did not have a clear purpose.

Teachers in this study often saw as unnecessary those policy directives that contained packaged curricula that required them to change what they taught and sometimes how they taught. Fine (1992), Mitchell (2007), and Starratt (2003) suggested that either we can continue providing teachers with increments of knowledge, skills and judgments from best practices or we can transform whole systems into educationally and emotionally rich communities of learners.

Summary. Consideration of the study's findings in the light of adult learning literature, self-efficacy, collective efficacy and supervision for renewal, and the possible outcomes from these constructs led to a number of recommendations regarding the implementation and assessment of professional development; in sum, professional development should be relevant to the teacher's needs and the school's mission. A combination of training

and alternative models such as collaborative groups or teacher networks are desirable, as the combination offers opportunities to address mandated reforms as well as encompassing personalized approaches that encourage sharing. The providers of professional development should be knowledgeable, build strategies for increasing motivation into the presentation plan, respect the individuals' past experiences, and balance advocacy for use of best practices with ongoing research.

Professional development is about learning and it is about promoting, applying and generating learning for the purposes of the cognitive and socio-cultural growth and development of the student, teacher, school and school board, and the growth and development of the teaching profession.

CHAPTER 7: CONCLUSIONS

Teacher Professional Development and Its Impact on Practices

This chapter highlights the practical and theoretical contributions this study makes to the professional development literature. It presents the limitations of the study and concludes by suggesting areas for further research.

Practical Contributions to the Field of Professional Development

This study examined the perspectives of a specific group of teachers and administrators on professional development. Its findings have been analyzed and interpreted with respect to the impact of professional development on the respective practices of each of these groups. The findings provide support for the role of professional development as a means of enhancing and applying teacher learning, generating knowledge, and enhancing student learning and achievement.

Most studies in the academic literature on teacher professional development inquired into teachers' satisfaction with professional development or focused on a specific subject area to ascertain whether training of teachers changed their instructional practices. Similarly, most of the research on administrators and their role in teacher professional development centered on instructional leadership or focused on leadership qualities. This study makes a practical contribution to the field by addressing how teachers and administrators acting together inquire, interact, adapt, and problem solve as they plan, implement, and assess professional development and its impact on teachers' practices.

A second practical contribution of the study is to highlight conditions under which teacher professional development led to improved learning outcomes for students and for teachers, as was the case of the literacy initiative.

A third practical contribution is to provide evidence of the viability of using the school as a site for ongoing professional development. This was illustrated in the case of the mathematics teachers and their attempts to understand the curriculum and find solutions for a curriculum that was not suited to their students' developmental stages.

A fourth practical contribution of the study is that it demonstrates that teachers seek personal goals in addition to student outcomes from their professional development. Some of these goals include career advancement, intellectual stimulation, developing and deepening interest in a specific area, and making a contribution to the profession of teaching.

Through data collected from administrators, the study provided evidence of the nature and influence of administrators' practices on teachers' practices. In particular, the study highlighted the collaborative efforts of administrators working in concert with team leader teachers to bring about changes in learning and practices of students, teachers, and administrators.

While the findings of the study confirmed much of the literature on the barriers to professional development, the study identified changes that teachers believed would make a difference in their practices. Seven relevant and useful areas of change in professional development that require going beyond workshop training include:

- being able to acquire adequate subject knowledge and pedagogical content skills;
- having access to trained mentors and department head/curriculum specialists;

- providing time during the day for teachers to work and learning together;
- matching policies and practices (such as those for assessment and evaluation) with the values of the teaching profession;
- having access on an ongoing basis to resources/experts in teachers' corresponding subject/discipline areas;
- working in partnerships to foster creativity, imagination and innovation; and,
- having time and an appropriate teaching environment to apply what they have learned.

The study illustrated that most teachers were able to derive some benefit from professional development activities and to adapt, accommodate, and transcend boundaries to implement reforms when they had adequate information and support from administration and teacher-led teams. The most salient contribution of the study, I believe, was to identify why and how teachers learn and the struggles they went through in doing so. The comments made by teachers and administrators also clearly indicated the increased social and educational polarization that has exacerbated the challenges they face in their practices. These findings reinforced the need to take a new approach to teacher professional development.

Theoretical Contributions to the Field of Professional Development

Much of the existing research on professional development has focused on designs, principles, models, and implementation of professional development, and more recently on the relationship between professional development and student achievement. Existing literature gives insufficient consideration to the needs of teachers and their learning as

they encounter new subject areas, new technology, multiple reforms and the complexities of a pluralistic society.

This study made a number of theoretical contributions to the field of professional development. First, by examining a diverse population of teachers and administrators within a single school setting, this in-depth ethnographic study provided insights into how teachers, when faced with multiple reforms and expectations for student achievement, approached and used professional development to increase their own and student learning.

Second, by creating a model to apply the principles of adult learning, and the theories of self-efficacy, collective efficacy and supervision for renewal to teacher professional development, the study provides guidance to teachers and administrators for approaching their learning and at the same time builds a two-way-street between theory and practice and from practice back to theory.

Third, the study proposed a process model of professional development that involves teachers, providers, and supervisors in the actual work of professional development. The model is designed to help build a system of development for a learning profession.

Fourth, the model offers schools a path to move to new levels of engagement in learning that could develop knowledge, skills, and positive attitudes in teachers and administrators and improve the next generation of research on teacher professional development.

This study brought to the forefront issues such as the need for equity of resources, cultural understanding at the macro-and micro-political levels, and the need to include social and emotional issues in the discourse about teacher professional development.

This inquiry also provided some preliminary information on formative assessment mechanisms that teachers use to assess their learning from professional development.

This is an important contribution to the field because much of the academic literature deals only with outputs or outcomes and not with teachers' reflections on their practices and their assessments of professional development in progress. This new line of inquiry has yet to be tapped. In addition, this study provided detailed examples of how teachers validate information and make judgments in their everyday teaching lives. This type of reflection, assessment and validation carried out by teachers on their practices extends and integrates understandings of teachers' learning.

A clear message to policy makers which comes out of this research is that there is a need to understand the role that teachers play in policy implementation and a need to invest in teacher professional development and administrator professional development. This investment means having adequate time and resources for learning in place prior to, during, and after changes have been announced by governments for teachers' training, practices, and education.

Limitations of the Study

Quantitative researchers might suggest the absence of a control group, the size of the sample, the use of one high school, and the exploration of teachers' learning experiences and their impact on teachers' practices retrospectively as a limit in the design. Qualitative researchers might question the time spent at the site, seven months, as relatively limited and note that over longer periods of time the views and opinions reported might change. Ideally, future research on teacher professional development, together with its effects on practice, needs to extend to more than one school and to more than one school system.

Areas for Future Research

The zeitgeist influences knowledge production and directs our attention to certain problems. At the same time, it offers compelling opportunities to develop new epistemologies, and new angles from which to view the world (Kincheloe 2003, p.92). Professional development and its impact on teachers' practices is one of the newest areas of research on teacher development and learning (Darling-Hammond & Bradsford, 2005).

From the literature review, it is apparent that researchers using different methods share little in common when it comes to discussing and evaluating study findings. Thus, there is a need for recognition of interrelationships by scholars operating from different paradigms (see Table 17).

Because teachers' professional status makes salient an obligation to serve, the system needs to encourage school teachers, in partnership with university professors, to investigate teacher professional development methodically and to try to establish not only what works and what are best practices, but also to observe, experiment, generate new possibilities, share, and disseminate knowledge.

King and Newmann (2000) suggested that an inquiry approach would be effective for building capacity, and Wegner (1998) believed that establishing meaning is the way in which we make sense of the world both individually and collectively (p.5). If that is the case, then at least some of the questions concerning teacher professional development need to come from the teachers themselves. In that way, the exploration of the issues will be relevant and useful to teachers and their practices.

Teachers are all too familiar with students knowing something in a group situation but being unable to apply that knowledge on their own or in a new context. Teachers are

little different from students in this regard, based on my experience with action research and other forms of teacher professional development. This study has given rise to the following questions that could be addressed by teachers and researchers working in partnership to expand the knowledge base in the field of teacher professional development:

1. Under what conditions does teacher learning that is associated with professional development get transferred to the classroom?
2. What are the effects on student learning of teachers who do not have backgrounds in the relevant disciplines to teach students?
3. What are the obstacles to creating an inquiry-based community?
4. How do pre-service programs and professional development activities for practicing teachers provide opportunities for intellectual growth, and are they clearly and appropriately connected to teachers' work in the context of the school?
5. How does professional development in the area of cultural understanding affect the way teachers teach children from culturally and linguistically diverse backgrounds? What adjustments do teachers make as a result of this knowledge?
6. What causes female teachers in pursuit of leadership roles to express different levels of confidence than their male counterparts?
7. How do teachers who come from the team structure of an elementary school fare when compared with new teachers who come directly into high school departments? What types of support protect and build efficacy?

Concluding Remarks

The hypothesis for this study was that by using the principles underlying adult learning and the theories of self-efficacy, collective efficacy and supervision for renewal, the focus of professional development would shift from training to learning and thus increase the success of teacher learning and the application of that learning to the classroom. This hypothesis includes the premises that teachers in high schools had too many reforms with which to contend, that their professional development was fragmentary and piecemeal, and that professional development may lack meaning for teachers and therefore not translate to changes in their practices.

This study illustrated how government policy, teacher associations, school board initiatives, and school administration, as well as teachers' own self-efficacy and collective efficacy, affect teacher understandings and behaviour, particularly as they relate to professional development. The study also identified areas of teachers' needs for professional development that are not being met.

The ethnographic approach used in the study provided an understanding of teachers' emic views, that is, their "insider familiarity" with professional development and its effects. Through observations and in-depth interviews, together with teacher validation of the findings, the study provided answers to four research questions. As a result, we now have a better understanding of what professional development means to the teachers involved in the study and what they perceive to be the barriers to and supports for their learning. We also know what they believe professional development should be—what teachers deem to be effective and ineffective professional development and the criteria they use to measure effectiveness and ineffectiveness.

Making teachers better technicians and implementers of narrowly-defined instructional packages will not foster creativity, encourage innovation, engender commitment or produce better-educated teachers and students. Just as teaching is not something that we *do to* students, professional development is not something we should *do to* teachers. The development of teacher practices requires inquiry and pragmatic experimentation not “on” but “in” schools themselves. Such experimentation cannot be confined exclusively to the school context. Partnerships in teachers’ subject areas with other professional fields, as well as with universities, businesses and industry, can provide new opportunities and enhance skills such as critical thinking, problem solving and effective communications.

The study asserts that learning, application of learning, and assessment of learning are indispensable elements in any professional program and, therefore, must be at the center of teacher professional development. Thus, teachers and educational leaders who are not satisfied with the centralized curriculum and assessment policies, the demands for higher test scores, and the limited time and resources allocated to teacher learning, must take up the agenda to put forth alternatives to standardization and the current teacher training culture. Adult learning, self-efficacy and collective efficacy, and supervision as renewal are all possible entry points for teachers and institutions to work together to improve learning in schools and in the profession.

REFERENCES

REFERENCES

- Abdal-Haqq, I. (1996). *Making Time for teacher professional development*. (Eric Document Reproduction Service No. ED400259).
- Adnett, N. (2003). Reforming teachers' pay: incentive payments, collegiate ethos and UK policy. *Cambridge Journal of Economics*, 27(1), 145-157.
- American Psychological Association. (2001). *Publication Manual of the American Psychological Association* (5th ed.). Washington, DC.
- Association for Educational Communications and Technology (AECT, 2000). *Change Theory Overview*. Retrieved September 5, 2006, from <http://ide.ed.psu.edu/change/systems.htm>
- Association for Supervision and Curriculum Development (2004). *Learning Communities: A New Definition of Professional Development*. Retrieved July 13, 2006, from <http://www.ascd.org>
- Auerbach, C., & Silverstein, L. (2003). *Qualitative Data: An Introduction to Coding and Analysis*. New York: New York University Press.
- Ball, S. (2001). Labour, learning and the economy. A 'policy sociology' perspective. In M. Fielding. *Taking Education Really Seriously*. (pp. 45-56): Routledge/Falmer.
- Ballou, D. (2001). Pay for performance in public and private schools. *Economics of Education Review*, 20(1), 51-61.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

- Bandura, A. (1994). Self-Efficacy. In V. S.Ramachaudran. *Encyclopedia of Human Behavior*. (4, pp. 71-81). New York, Academic Press.
- Bandura, A. (1995). *Self-efficacy in changing societies*. Cambridge: Cambridge University Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, 52(1), 1-26.
- Bandura, A. (2002). Social Cognitive Theory in Cultural Context. *Applied Psychology*, 51(2).
- Barber, M. (2002). From good to great: large scale reform in England. Zurich, Switzerland. Paper presented at Futures of Education conference. April 23, 2002
- In L. Earl (2005). *From accounting to accountability: Harnessing data for school improvement*. Retrieved January 8, 2005, from www.acer.edu.au/research_conferences/2005.html
- Barber, M. (2005). Education Reform Lessons from England. *Education Sector: Analysis and Perspectives*, Retrieved July10, 2003, from <http://www.educationsector.org/analysis/>>
- Barth, R. S. (1990). *Improving schools from within: teachers, parents, and principals can make the difference*. San Francisco: Jossey-Bass.
- Barth, R. S. (2006). Improving Relationships within the Schoolhouse. *Educational Leadership*, 63(6), 8-13.

- Bascia, N., Rodrigue, A., & Moore, S. (2004). The importance of partnership to support and sustain teaching for deep understanding. In *Teaching for deep understanding: Toward the Ontario curriculum that we need*. Toronto: Elementary Teachers' Federation (ETFO).
- Beck, C. (1999). Metaphors of educational community: An analysis of the images that reflect and influence scholarship and practice. *Educational Administration Quarterly*, 35(1), 13-45.
- Beers, G. (1996). No time, no interest, no way. *School Library Journal*, 42(2), 30-33.
- Belzer, A. (2003). Toward broadening the definition of impact in professional development on ABE practitioners. *Adult Basic Education*, 13(1), 44-59.
- Berg, B. (2004). *Qualitative research methods for social sciences* (5th ed.). Long Beach, CA: Allyn & Bacon.
- Blase, J. (1991). *The politics of life in schools: Power, conflict and cooperation*. Newbury Park: Sage.
- Blase, J., & Blase, J. (1999). Principals' Instructional Leadership and Teacher Development: Teachers' Perspectives. *Educational Administration Quarterly*, 35(3), 349-378.
- Bolam, R. (2000). Emerging Policy Trends: some implications for CPD. *Journal of In-Service Education*, 26(267-280).
- Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., et al. (2005). *Creating and Sustaining an Effective Professional Learning Community*: University of Bristol. Retrieved August 10, 2004, from www.dfes.gov.uk/research/data/uploadfiles/RR637.pdf

- Bolin, F., & McConnel Falk, J. (1987) In T. Sergiovanni & R. Starratt (2002).
Supervision: a redefinition (7th ed.). Boston: McGraw-Hill.
- Borko, H., Liston, D., & Whitcomb, J. (2006). A Conversation of Many Voices. *Journal of Teacher Education*, 57(3), 199-204.
- Bransford, J., Brown, A., & Cocking, R. (2000). *How People Learn: Brain, Mind, Experience, and School* (Expanded ed.). Washington, D.C.: National Academy Press.
- Bredeson, P. (2003). *Designs for learning: A new architecture for professional development in schools*. Thousand Oaks, California: Corwin Press.
- Brooks, J., & Brooks, M. (1993). *The case for constructivist classrooms*. Alexandria, VA: Association for Supervision for Curriculum Development.
- Brooks, M., & Brooks, J. (1999). The courage to be constructivist. *Educational Leadership*, 57(3).
- Brown, J., & Duguid, P. (2000). *The Social Life of Information*. Boston, MA: Harvard Business School Press.
- Bruner, J. (1996). *The culture of Education*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1999). *Postscript: Some reflections on education research*. San Francisco: Jossey-Bass.
- Bryman, A. (2001). *Social research methods*. Oxford; New York: Oxford University Press.
- Buchmann, M., & Floden, R. (1991). Program coherence in teacher education: A view from the USA. *Oxford Review of Education*, 17, 65-72.

- Burchell, H., Dyson, J., & Rees, M. (2002). Making a Difference: a study of the impact of Continuing Professional Development on professional practice. *Journal of In-Service Education*, 28(2), 219-229.
- Burns, J. (1978). *Leadership*. New York: Harper & Row.
- Candy, P. (1991). *Self-Direction for Lifelong Learning*. San Francisco: Jossey-Bass.
- Caravaglia, P. (1993). How to Ensure Transfer of Training. *Training and Development*, 63-68.
- Carter, G. (2006, April 19). *Is It Good for Kids? The 65 percent Solution: A Troubling Formula for Education's Future*. Retrieved September 6, 2006 from <http://www.ascd.org/portal/site/ascd>
- Connelly, F., & Clandinin, D. (1990). Stories of experiences and narrative inquiry. *Educational Researcher*, 19(5), 2-14.
- Clandinin, J., & Connelly, M. (1998). Stories to Live By: Narrative Understandings of School Reform. *Curriculum Inquiry*, 28(2), 149-164.
- Clark, C. (2005). The structure of educational research. *British Educational Research Journal*, 31(3), 289-308.
- Cochran-Smith, M. (2004). *Walking the Road: Race, Diversity, and Social Justice in Teacher Education*. New York: Teachers College Press.
- Cochran-Smith, M. (2001). Reforming Teacher Education. *Journal of Teacher Education*, 52(4), 263-265.
- Cochran-Smith, M. (2005a). The New Teacher Education: For Better or Worse? *Educational Researcher*, 34(7), 3-17.

- Cochran-Smith, M. (2005b). Teacher Education and the Outcomes Trap. *Journal of Teacher Education*, 56(5), 411-417.
- Cochran-Smith, M. (2006). *Policy, Practice, and Politics in Education*: Corwin Press.
- Cochran-Smith, M., & Lytle, S. (1999). Relationships of knowledge and practice: Teacher learning in communities. *Review of Educational Research in Education*, 24, 249-305.
- Coe, R. (2002). *Finding out what works: Evidence-based education*. Durham, UK, Durham University School of Education. Retrieved May 3, 2002, from <http://www.dur.ac.uk/r.j.coe/ma>
- Cohen, D., & Hill, H. (2000). Instructional Policy & Classroom Performance. *Teacher College Record*, 102(2), 294-343.
- Cohen, D., & Hill, H. (2001). *Learning policy: When state education reform works*. New Haven, CT: Yale University Press.
- Collins, J. (2001). Level 5 Leadership. *Harvard Business Review* (January).
- Connelly, F., & Clandinin, D. (1990). Story of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14.
- Cook, C., & Rasmussen, C. (1994). *Framework for designing effective professional development: Change -based inquiry process*. Oak Brook, Il: North Central Regional Educational Laboratory.
- Coulter, R. (1994). *An Introduction to Aspects of the History on Public Schooling in Ontario, 1840-1990*. Background paper written for the Ontario Royal Commission on Learning, 1994.

- Council of Ministers of Education. (2003). School Achievement Indicators Program (SAIP). Student Writing 111 Assessment. Toronto, Canada.
- Coupal, L. (2004). Constructivist learning theory and human capital theory: shifting political and educational frameworks for teachers" ICT professional development. *British Journal of Educational Technology*, 35(5), 587-596.
- Creswell, J. (2003). *Educational Research: Planning, conducting, and evaluating Quantitative and Qualitative Research*. Upper Saddle River, NJ: Merrill/Prentice-Hall.
- Darling-Hammond, L. (1997). *Doing what matters most: investing in quality teaching*. New York, N.Y.: National Commission on Teaching & America's Future.
- Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational leadership*, 55(5), 6-11.
- Darling-Hammond, L. (1999). Educating Teachers for the Next Century: Rethinking Practice and Policy. In G. Griffin (Ed.), *The Education of Teachers* (pp. 221-256). Chicago, IL: University of Chicago Press.
- Darling-Hammond, L. (2001). Who Is Teaching Our Children? The Challenge of Staffing Our Schools. *Educational Leadership*, 58(8).
- Darling-Hammond, L. (2006a). Constructing 21st-Century Teacher Education. *Journal of Teacher Education*, 57(3), 300-314.
- Darling-Hammond, L. (2006b). Assessing Teacher Education: The Usefulness of Multiple Measures for Assessing Program Outcomes. *Journal of Teacher Education*, 57(2), 120-138.

- Darling-Hammond, L., & Finn, C. E. (2000). *Two paths to quality teaching: implications for policymakers : an ECS staff comparison of the positions of the National Commission on Teaching and America's Future and the Thomas B. Fordham Foundation*. Denver, Colo.: Education Commission of the States.
- Darling-Hammond, L., & Bradsford, J. E. (2005). *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do*. Jossey-Bass.
- Darling-Hammond, L., & Rustique-Forrester, E. (2005). The consequences of student testing for teaching and teacher quality. In J. Herman & H. Haertel (Ed.), *Uses and misuses of data for educational accountability and improvement*. (Part 11, pp. 289-296). 104th Yearbook of the National Society for the Study of Education, Malden, MA: Blackwell.
- Davis, B., & Sumara, D. (1997). Cognition, complexity and teacher education. *Harvard Educational Review*, 67(1), 105-125.
- Davis, G., & Hegedus, S. (2005). *Organic Networks for the Growth of Teacher Awareness and Knowledge*. Retrieved July 16, 2006, from <http://merg.umassd.edu/projects/symcog/symposium/primer.php>
- Day, C. (1999). *Developing teachers: the challenge of lifelong learning*. London: Falmer.
- Day, C., & Sachs, J. (2004). Professionalism, performativity and empowerment: discourse in politics, policies and purposes of continuing professional development. In C. Day.& J. Sachs (Ed.), *International Handbook on Continuing Professional Development of Teachers*. Maidenhead, Birks: Open University Press.

- Dede, C., Korte, S., Nelson, R., Valdez, G., & Ward, D. (2005). *Transforming Learning for the 21st Century: An Economic Imperative*. Naperville, IL: Learning Points Associates. Retrieved May 25, 2007 from www.learningpt.org
- Delaney, J. (2002). *Educational Policy Studies: A Practical Approach*. Calgary, Alberta, Canada: Detselig Enterprises Ltd.
- Denizen, N., & Lincoln, Y. (1994). *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage.
- Department of Education and Skills (DfES). (2007, January 8). *Making Good Progress. A Consultation Paper* Retrieved January 8, 2007, from <http://www.dfes.gov.uk/consultations/conDetails.cfm?consultation1>
- Desimone, L., Porter, A., Birman, B., Garet, M., & SukYoon, K. (2002a). How Do District Management and Implementation Strategies Relate to the Quality of the Professional Development that Districts Provide to Teachers? *The Teachers College Record*, 104(7), 1265.
- Desimone, L., Porter, A., Garet, M., Yoon, K., & Birman, B. (2002b). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis*, 24(2), 81-112.
- Diaz-Maggioli, G. (2004). *A passion for learning: Teacher-centered professional development*. Alexandria, Virginia: ASCD.
- Dinham, S. (2007). In R. Durbridge (2007). *Performance Pay and Individualized Pay in Australian Teachers' Salary Structures: A Research Project for Educational International*. Retrieved June 20, 2007, from www.acer.edu.au

- DuFour, R. (1998). Why look elsewhere: Improving schools from within. *The School Administrator*, 2(55), 24-28.
- DuFour, R. (2004). What is a "professional learning community"? *Educational Leadership*, 61(8), 6-11.
- DuFour, R., Eaker, R., & DuFour, R. E. (2005). *On common ground: The power of professional learning communities*. Bloomington, IN: National Education Service.
- Duke, D., & Stiggins, R. (1990). Beyond minimum competence: Evaluation for professional development. In J. Millman & L. Darling-Hammond (Eds.). *The new handbook of teacher evaluation*. (pp. 116-133). Newbury Park, CA: Sage.
- Earl, L. M., Levin, B., Leithwood, K., Fullan, M., & Watson, N. (2003). *England's National Literacy and Numeracy Strategies Final Report*. London: Department of Education and Skills.
- Edmondson, R. (2005). *Evaluating the Effectiveness of A Telepresence-Enabled Cognitive Apprenticeship Model of Teaching Professional Development*. Utah State University, Logan, Utah.
- Eisenhart, M., & Towne, L. (2003). Contestation and change in national policy on "scientifically based" education research. *Educational Researcher*, 32(7), 31-38.
- Eisenhart, M. (2006). Sociology of Education. *International Journal of Qualitative Studies in Education*, 19(6), 697-707.
- Eisner, E. (1992). The federal reform of schools: looking for the silver bullet. *Phi Delta Kappan*, 73(9), 722-723.

- Elmore, R. (2000). Building a new structure for school leadership. Washington, DC: The Albert Shanker Institute. Retrieved May 2, 2005 from <http://www.ashankerinst.org>
- Elmore, R. (2002). *Bridging the gap between standards and achievement: The imperatives for professional development in education*. Washington, DC: Albert Shanker Institute. Retrieved November 8, 2005, from <http://www.shankerinstitute.org>
- Elmore, R. (2006). An Interview with Richard Elmore. *Changing Perspectives*, 1(3), 33-36.
- Elmore, R., & Burney, D. (1997). *Investing in Teacher Learning: Staff development and instructional improvement in community school district # 2*. New York: New York: National Commission on Teaching and America's Future.
- Eraut, M. (2000). Non-Formal Learning and Tacit Knowledge in Professional Work. *British Educational Research Journal*, 70(1), 113-136.
- Erdmann, A. (1998). Middle-Age Teaching: A Time of Vitality. *Harvard Educational Review*, 68, 583-587.
- Evans, L. (2007). Professionalism, professionalism and professional development. Retrieved June 22, 2007 from <http://www.leeds.ac.uk/medicine/meu/lifelong07/papers/Linda%20Evans.pdf>
- Fenstermacher, G. (1992). Controlling Quality and Creating Community: Separate Purposes for Separate Organizations. *Journal of Teacher Education*, 45(5), 329-336.

- Fenwick, T. (2000). *Teacher-Directed Supervision: Manufacturing Selves or Liberating Professional Practice?* Paper presented at the Annual Meeting of the Canadian Association for the Study of Educational Administration, Edmonton, Alberta.
- Fine, M. (1992). *Chart[er]ing urban school reform: Philadelphia style*. CUNY Graduate Center: Philadelphia Schools Collaborative.
- Finley, S., Cole, A., Knowles, J., & Elijah, R. (2000). Making mindscapes: Continuing reflections of a community of researchers. *Journal of Critical Inquiry into Curriculum and Instruction*, 2(2), 7-14.
- Firestone, W., Mangin, M., Martinez, M., & Polovsky, T. (2003). Content and Coherence in District Professional Development: Three Case Studies: Rutgers University.
- Freidson, E. (2001). *Professionalism: The Third Logic on the Practice of Knowledge*. Chicago: Blackwell Publishers Ltd.
- Fullan, M. (2000). The return of large-scale reform. *The Journal of Educational Change*, 1(1), 5-28, January.
- Fullan, M. (2003a). *The Moral Imperative of School Leadership*. Thousand Oaks, California: Corwin Press.
- Fullan, M. (2003b). *Change Forces With A Vengeance*. London and New York: RoutledgeFalmer.
- Fullan, M., Bertani, A., & Quinn, J. (2004). New Lessons from Districtwide Reform. *Educational Leadership*, 61(7), 42-46.
- Fullan, M., & Stiegelbauer, S. (1991). *The New Meaning of Educational Change* (2nd ed.). New York: Teachers College Press.

- Fuhrman, S., & Malen, B. (1991). *The Politics of Curriculum and Testing*. New York: The Falmer Press.
- Gall, M., Borg, W., & Gall, J. (1996). *Educational research: An introduction*. White Plains, NY: Longman.
- Garet, M., Birman, B., Porter, A., Desimone, L., Herman, R., & Yoon, K. (1999). *Designing effective professional development: Lessons from the Eisenhower program*. Washington, DC: U.S. Department of Education.
- Garet, M., Porter, A., Desimone, L., & Birman, B., & Yoon, K. (2001). What Makes Professional Development Effective: Analysis of a national sample of teachers. *American Education Research Journal*, 38(4), 915-945.
- Geertz, C. (1973). Thick Description: Toward an Interpretive Theory of Culture. In *The Interpretation of Cultures: Selected Essays* (pp. 3-30). New York: Basic Books.
- Genzuk, M. (2003). *A synthesis of Ethnographic Research*. Rossier School of Education. Retrieved November 5, 2004, from <http://www-rcf.usc.edu/~genzuk/>
- Gherardi, S. (1999). Learning as problem-driven or learning in the face of mystery? *Organizational Studies*, 20(1), 101-124.
- Giddens, A. (2006). *Sociology* (5th ed.). Cambridge: Polity Press.
- Gidney, R. (1999). *From Hope To Harris*. Toronto: University of Toronto Press.
- Giroux, H., & Schmidt, M. (2004). Closing the Achievement Gap: A Methaphor For Children Left Behind. *Journal of Educational Change*, 5(3), 213-228.
- Glassford, L. (2005). A Triumph of Politics over Pedagogy? The Case of Ontario Teacher Qualifying Test, 2000-2005. *Canadian Journal of Educational Administration and Policy* (45).

- Glatthorn, A. (1990). *Supervisory Leadership: Introduction to instructional supervision*. Glenview, Illinois: Scott Foresman & Co.
- Goddard, R., Hoy, W., & Woolfolk Hoy, A. (2004). Collective Efficacy: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*, 33(3), 3-13.
- Goddard, R., Hoy, W., & Woolfolk Hoy, A. (2000). Collective Teacher Efficacy: Its Meaning, Measure, and Impact on Student Achievement. *American Educational Research Journal*, 37(2), 479-507.
- Goldhammer, R., Anderson, R., & Krajewski, R. (1993). *Clinical Supervision. Special methods for the supervision of teachers* (3rd ed.). Fort Worth: Harcourt Brace Jovanovich.
- Goodson, I. (2001). Social histories of educational change. *Journal of Educational Change*, 2, 45-63.
- Goodson, I. (1999). The educational researcher as public intellectual. *British Educational Journal*, 25(3), 277-297.
- Ghosh, R., & Ray, D. (1995). *Social change and education in Canada* (3rd ed.). Toronto: Harcourt Brace Canada.
- Government of Canada. (2002). *Knowledge Matters: Skills and Learning for Canadians*. Hull, Human Resources Development, Canada.
- Government of Ontario. (1994) *Royal Commission on Learning. For the Love of Learning*. Vol. 111. Toronto: Queen's Printer for Ontario.
- Gramston, R., & Wellman, B. (1998). Teacher Talk that Makes a Difference. *Educational Leadership*, 55(7), 30-34.

- Grant, C. (2001). *Professional development in a technological age: New definitions, old challenges, new resources*, Retrieved February 2, 2002 from <http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd2.prof.htm>
- Griffin, G. (1999). Changes in Teacher Education: Looking to the Future. In G. Griffin (Ed.), *The Education of Teachers: Ninety-eighth Yearbook of the National Society for the Study of Education*. (pp. 1-27). Chicago, IL: University Chicago Press.
- Grow, G. (1994). In Defence of the Staged Self-Directed Learning Model. *Adult Education Quarterly*, 44(2), 109-114.
- Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Quantitative Research*. Thousand Oaks, CA: Sage.
- Guglielmino, L., & Associates. (2005). 2002 Review of the Learning Preference Assessment (LPA). Retrieved March 10, 2006, from <http://www.guglielmino734.com>
- Guskey, T. R. (2000a). Professional development and teacher change. *Educational Researcher*, 15(5), 5-12.
- Guskey, T. R. (2000b). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press.
- Guskey, T. R. (2002). Does it make a difference? *Educational Leadership*, 59(6), 45.
- Guskey, T. R. (2003). Analyzing Lists of the Characteristics of Effective Professional Development to Promote Visionary Leadership. *NASSP Bulletin*, 87 (637) 38-54.

- Guskey, T. R. (2005). A Conversation with Thomas Guskey. *The Evaluation Exchange*, XI(4) Retrieved May 30, 2006 from <http://www.gse.harvard.edu/hfrp/eval/issue32/qanda.html>
- Hall, G. E., & Hord, S. M. (1987). *Change in schools: facilitating the process*. Albany, N.Y. State University of New York Press.
- Hall, G., & Hord, S. (2001). *Implementing Change: Patterns, principles, and potholes*. Boston: Allyn & Bacon.
- Hall, G., Loucks, S., Rutherford, W., & Newlove, W. (1975). Levels of use in innovation: A framework for analyzing innovation adoption. *Journal of Teacher Education*, 26(1), 52-56.
- Hammerness, K. (2006). From Coherence in Theory to Coherence in Practice. *Teachers College Record*, 108(7), 1241-1265.
- Hammersely, M. (2005). The Myth of Research-Based Practice: The Critical Case of Educational Inquiry. *International Journal of Social Research Methodology*, 8(4), 317-330.
- Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in Practice* (2nd ed.): Routledge.
- Hammond, C., & Feinstein, L. (2005). The effects of adult learning on self-efficacy. *London Review of Education*, 3(3), 265-287.
- Hannay, L. (2004). *Rethinking professional learning: engaging the little grey cells*, A National College for School Leadership, Nottingham, UK.

- Hannay, L., Ross, J., & Seller, W. (2006). Clashing Cultures, Clashing Paradigms: Lessons from District Research on Secondary School Restructuring. *Journal of Educational Change*, 6(1), 7-27.
- Hargreaves, A. (1995). *Development and Desire: A postmodern perspective*. In T. Guskey & M. Huberman (Eds.), *Professional development in education new paradigms & perspectives* (pp.9-34). New York: Teachers College Press.
- Hargreaves, A. (2003). *Teaching in the Knowledge Society: Education in the Age of Insecurity*. New York: Teachers College Press.
- Hargreaves, A. (2006). *The Quest for Increased Student Achievement: Educational Systems That Are Working*. Paper presented at the York Region District School Board Annual Quest, Richmond Hill.
- Hargreaves, D., Leask, M., & Hopkins, D. (1991). *The empowered school : the management and practice of development planning*. London: Cassell.
- Hargreaves, D. (1997). In Defense of Research for Evidence-Based Teaching: A Rejoinder to Martyn Hammersley. *British Educational Research Journal*, 23(4), 405-419.
- Hargreaves, D. (2001). A Capital Theory for School Effectiveness and Improvement. *British Educational Research Journal*, 27(4), 487-503.
- Hargreaves, D. (2003). Education Epidemic: Transforming Secondary Schools through innovative networks. Retrieved April 15, 2007 from www.demos.co.uk

- Hawley, W., & Valli, L. (1999). The essentials of effective professional development: A new consensus. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as a Learning Profession. Handbook of Policy and Practice*. San Francisco: Jossey-Bass.
- Hawley, W., & Valli, L. (2000). Learner-Centered Professional Development. *Phi Delta Kappa International*, 27.
- Heifetz, R., & Linsky, M. (2002). *Leadership on the Line: Staying Alive Through the Dangers of Leading*. Boston, MA: Harvard Business School Press.
- Hess, F. (1999). A political explanation of policy selection: The case of urban school reform. *Policy Studies Journal*, 27(3), 459-473.
- Hiemstra, R., & Sisco, B. (1990). *Individualizing Instruction: Making Learning Personal*. San Francisco: Jossey-Bass.
- Hill, H., & Ball, D. (2004). Learning mathematics for teaching: Results from California's Mathematics Professional Development Institutes. *Journal for Research in Mathematics Education*, 35(5), 330-351.
- Holton, E. (1996). The flawed four level evaluation model. *Human Resource Development Quarterly*, 7(1), 5-21.
- Honig, M. (2003). Building policy from practice: District Central Office Administrators' roles and capacity for implementing collaborative education policy. *Education Administration Quarterly*, 39(3), 292-338.
- Hord, S. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*, Retrieved September 9, 2004, from <http://www.sedl.org/pubs/change34/>

- Hord, S., Rutherford, W., Huling-Austin, L., & Hall, G. (1987). *Taking Charge of Change*. Alexandria, VA: Reprinted 2005 by the Association for Supervision and Curriculum Development.
- Howard, B., McGee, S., Schwartz, N., & Purcell, S. (2000). The experience of constructivism: Transforming teacher epistemology. *Journal of Research on Computing in Education*, 32(4), 455-464.
- Hyde, A., & Pink, W. (1992). Thinking About Effective Staff Development. In W. Pink & A. Hyde (Eds.), *Effective Staff Development for School Change* (pp. 3-29). Norwood, New Jersey: Ablex Publishing Corporation.
- Ingersoll, R. (2003). *Who Controls Teachers' Work: Power and Accountability in America's Schools*. Cambridge: Harvard University Press.
- Ingvarson, L. (1998). Professional Development as the pursuit of professional standards: The standards-based professional development system. *Teaching and Teacher Education*, 14(1), 127-140.
- Ingvarson, L. (2003). Building a Learning Profession. *ACER Policy Briefs*(3). Retrieved August 15, 2005 from <http://www.acer.edu.au/publications>
- Ingvarson, L., Meiers, M., & Beavis, A. (2005). Factors Affecting the Impact of Professional Development Programs on Teachers' Knowledge, Practice, Student Outcomes & Efficacy. *Education Policy Analysis Archives*, 13(10).
- Instructional Technology Council. (1998). *New Connections: A guide to Distance Learning Education*. Instructional Technology Council. Retrieved May 3, 2003, from www.itcnetwork.org/definition.htm

- Johnson, A. (2007). *Making Good Progress: 10 Local authorities selected for groundbreaking pilot*. Retrieved March 26, 2007, from <http://www.dfes.gov.uk/>
- Johnson, B., & Christensen, L. (2004). *Educational Research: Quantitative, Qualitative and Mixed Approaches*. Boston, MA: Pearson Education Inc.
- Joyce, B., & Showers, B. (1980). Improving Inservice Training: The Messages of Research. *Educational Leadership*, 37(5), 379-385.
- Joyce, B., & Showers, B. (2002). *Student Achievement through Staff Development*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Kadushin, A. (1992). *Supervision in Social Work* (3rd ed.). New York: Columbia University Press.
- Kelchtermans, G., & Ballet, K. (2002). Micropolitical Literacy: reconstructing a neglected dimension in teacher development. *International Journal of Educational Research*, 37, 755-767.
- Kelly, T. (1999). Why State Mandates Don't Work. *Phi Delta Kappan*, 80(7).
- Kennedy, M. (1999). Form and Substance in Mathematics and Science Professional Development. *National Institute for Science Education Brief*, 3(2).
- Kennedy, M. (2006). Knowledge and Visions of Teaching. *Journal of Teacher Education*, 57(3), 205-211.
- Kerr, K. (2006). *Between Caring & Counting: Teachers Take on Education Reforms*. Toronto: University of Toronto Press Inc.
- Killion, J. (2005). Evaluating the Impact of Professional Development in Eight Steps. *The Evaluation Exchange*.

- Kim, J. (1993). The link between individual and organizational learning. *Sloan Management Review* (Fall), 37-50.
- Kincheloe, J. L. (2003). *Teachers as researchers: Qualitative inquiry as a path to empowerment* (2nd ed.). London; New York: RoutledgeFalmer.
- King, A. (2002). *Double Cohort Study-Year Report*. Toronto: Ministry of Education and Ministry of Training.
- King, A., Warren, W., & Peart, M. (1988). *The Teaching Experience*. Toronto: Ontario Secondary School Teachers' Federation.
- King, B., & Newmann, F. (2000). Will teacher learning advance school goals? *Phi Delta Kappan*, 81(8), 576-580.
- Kirkpatrick, D. (1998). *Evaluating Training Programs: The four levels*. San Francisco: Berrett-Koehler.
- Knight, P. (2002). A systematic approach to professional development: learning as practice. *Teaching and Teacher Education*, 18(3), 229-241.
- Knowles, M. S. (1973). *The adult learner: A neglected species 2nd ed.* Houston: Gulf.
- Knowles, M. S. (1980). *The modern practice of adult education: from pedagogy to andragogy* (revised ed.). Chicago: Association Press/Follett.
- Knowles, M. (1984). *The Adult learner. A Neglected Species* (3rd ed.). Houston: Gulf Publishing.
- Knowles, M. (1992). Applying principles of adult learning in conference presentations. *Adult Learning*, 4(1), 12.

- Knowles, M., Holton, E., & Swanson, R. (1998). *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*. Houston, TX: Gulf Publishing.
- Lambert, L. (2003). *Leadership Capacity for Lasting School Improvement*. Alexandria, VA: ASCD.
- Lasky, S., Moore, S., & Sutherland, S. (2001). Teachers' Experience of Mandated Reform: Too much Pressure and Too Little Support. *Research in Ontario Secondary Schools*, 6(3).
- Lave, J., & Wenger, E. (1991). *Situated Learning. Legitimate peripheral participation*. Cambridge, Cambridge University Press.
- Lawler, P. (2003). Teachers as Adult Learners: A New Perspective. *New Directions for Adult and Continuing Education*, 98(15-22).
- Leithwood, K., Steinbach, R., & Jantzi, D. (2002). School leadership and teachers' motivation to implement accountability policies. *Educational Administration Quarterly*, 38(1), 94-119.
- Leithwood, K., Jantzi, D., & Steinbach, R. (2004). *Leadership practices for accountable schools*. In K. Leithwood and P. Hallinger (eds) *Second International Handbook of Educational Leadership and Administration*. Dordrecht: Kluwer Press.
- Leithwood, K., & Riehl, C. (2003). *What We Know About Successful School Leadership*. AERA report.
- Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How Leadership Influences Student Learning*. Retrieved October 18, 2005 from, <http://www.sai-iowa.org/leadershipforlearning.pdf>

- Levin, B. (1995). Reforming Secondary Education. *Canadian Journal of Educational Administration and Policy*(1).
- Levin, B. (1998). An Epidemic of Education Policy: (what) can we learn from each other? *Comparative Education*, 34(2), 131-141.
- Levin, B. (2003). *Helping Research in Education to Matter More* (unpublished paper) Winnipeg, Manitoba, University of Manitoba. Retrieved May 12, 2002, from www.sshrc.ca/web/about/publications/ben_levin.pdf
- Lewis, V., & Shaha, S. (2003). Maximizing learning and attitudinal gains through integrated curricula. *Education Administration Quarterly*, 123(3).
- Lick, D. (2005). A new perspective on organizational learning: Creating learning teams. *Evaluation and Program Planning*, 29(1), 88-96.
- Lick, D., & Kaufman, R. (2000). Change Creation: The Rest of the Planning Story. In J. Boettcher, M. Doyle & R. Jensen (Eds.). *Technology-Driven Planning: Principles to Practice*. Ann Arbor, MI, Society for College & University Planning.
- Lieb, S. (1991). Principles of Adult Learning. Retrieved May 14, 2004 from www.hcc.hawaii.edu/intranet/
- Lieberman, A. (1995). Practices that support teacher development. *Phi Delta Kappan*, 76(8), 591-596.
- Lieberman, A., & Miller, L. (1999). *Transforming Their World and Their Work*. NY: Teachers College Press.
- Lieberman, A., & Wood, D. (2003). *Inside the National Writing Project: Connecting Network Learning and Classroom Teaching*. NY: Teachers College Press.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic Inquiry*. Beverley Hills, CA: Sage.

- Linn, R. (2000). Assessments and accountability. *Educational Researcher*, 29(2), 4-17.
- Little, B. L., & Madigan, R. M. (1997). The relationship between collective efficacy and performance in manufacturing teams. *Small Group Research*, 28(4), 517-534.
- Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record*, 91(4), 509-536.
- Little, J. W. (1993). Teachers' Professional Development in a Climate of Educational Reform. *Educational Evaluation and Policy Analysis*, 15(2), 143.
- Little, J. W. (1997). *Benchmarks for Schools: Excellence in professional development and professional community*. Washington, DC: Office of Educational Research and Improvement.
- Little, J. W. (1999). *Teachers' Professional Development in the Context of High School Reform*. Paper presented at the annual meeting of the American Educational Research Association, Montreal. The National Partnership for Excellence and Accountability in Education.
- Little, J. W., Erbstein, N., & Walker, L. (2001). High School Restructuring and Vocational Reform: The Question of "Fit" in Two Schools. *NASSP Bulletin*, 85(685), 17-25.
- Little, J. W. (2003). Inside Teacher Community: Representations of Classroom Practice. *Teachers College Record*, 105(6), 913-945.
- Lomax, P. (1999). Working Together for Educative Community through Research. *British Educational Research Journal*, 25, 5-21.
- Lortie, D. (2002). *Schoolteacher: A Sociological Study*. Chicago: University of Chicago Press.

- Loucks-Horsley, S. (2000). *National Commission on Mathematics and Science: Teaching for the 21st Century*. March 6-7, U.S. Department of Education. Washington, DC.
- Loucks-Horsley, S., Hewson, P., Love, N., & Stiles, K. (1998). *Designing professional development for teachers of science and mathematics*. Thousand Oaks, CA: Corwin.
- Lowden, C. (2005). Evaluating the impact of professional development. *The Journal of Research in Professional Learning*. Retrieved May 2, 2006 from <http://nsdc.org/library/publications/research/lowden.pdf>
- Lyle, S. (2003). An Investigation into the Impact of a Continuing Professional Programme Designed to Support the Development of Teachers as Researchers in South Wales. *Journal of In-service Education*, 29(2), 295-313.
- MacKeracher, D. (1996). *Making sense of adult learning*. Toronto, ON: Culture Concepts.
- Macleod, F., & Golby, M. (2003). Theories of learning and pedagogy. Issues for teacher development. *Teacher Development*, 7(3), 345-363.
- Majhanovich, S. (2002). Conflicting visions, competing expectations: control and deskilling of education- a perspective from Ontario. *McGill Journal of Education*, 37(2), 159-176.
- Malinen, A. (2000). *Toward the Essence of Adult Experiential Learning: A Reading of the Theories of Knowles, Kolb, Mezirow, Revans and Schön*. Jyväskylä, Finland: University of Jyväskylä.
- Marzano, R., Pickering, D., & Pollock, J. (2001). *Classroom instruction that works*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Marczely, B. (1996). *Personalizing professional growth: staff development that works*. Thousand Oaks, CA.
- Marty, M. (2001). *Healthcare Professions: From Job to Vocation*. Retrieved May 16, 2005, from <http://www.parkridgecenter.org/Page1556.html>
- Maurer, R. (1996). Using resistance to build support for change. *Journal for Quality & Participation* (June), 56-63.
- Maurer, T. (2001). Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. *Journal of Management*, 27(2), 123-140.
- McDonald, D. (2005). *Emergent Characteristics of Complex Learning Communities*. Retrieved December 12, 2006 from www.cis.strath.ac.uk/research/publications/papers/strath_cis_publication_996.pdf
- McLaughlin, M., & Talbert, J. (2001). *Professional Communities and the Work of High School Teaching*. Chicago, IL: University of Chicago Press.
- McLaughlin, M., & Zarrow, J. (2001). Teachers Engaged in Evidence Based Reform. In A. Lieberman & L. Miller (Eds.), *Teachers Caught in the Action*. Columbia University: Teachers College Press.
- McMillan, J., & Schumacher, S. (1989). *Research in education: A conceptual introduction* (2nd ed.). Glenview, IL: Scott Foresman.
- McPharland, J., & Will, J. (2000). Restructuring for Reform: The Talent Development Model. *Principal Leadership*, 1(6), 28-31.
- Merriam, S. (1998). *Qualitative Research and Case Study. Applications in Education*. San Francisco, CA: Jossey-Bass.

- Merriam, S., & Caffarella, R. (1999). *Learning in Adulthood* (2nd ed.). San Francisco: Jossey-Bass.
- Merriam, S. (2004). The role of cognitive development in Mezirow's transformational learning theory. *Adult Education Quarterly*, 55(1), 60-68.
- Mezirow, J. (1997). Transformative Learning: Theory to Practice. In *Transformative Learning in Action: Insights from Practice. New Directions for Adult and Continuing Education*. San Francisco, Jossey-Bass.
- Miles, M., & Huberman, A. (1994). *Qualitative Data Analysis: An expanded Sourcebook*. Thousand Oaks, CA: Sage.
- Miller, J., & Nakagawa, Y. E. (2002). *Nurturing our Wholeness: Perspectives on Spirituality in Education*. Brandon, VT: The Foundation for Educational Renewal.
- Mitchell, C. (2007). Principles of Engagement: Building Sustainable Learning Communities. *Changing Perspectives*, February, 13-16.
- Mitchell, C., & Sackney, L. (2001). Building Capacity for a Learning Community. *Canadian Journal of Educational Administration and Policy*, 19. Retrieved January 15, 2004, from <http://www.umanitoba.ca/publications/cjeap/articles/mitchellandsackney.html>
- Mitzberg, H. (1994). *The Rise and Fall of Strategic Planning*. New York: The Free Press.
- Mundry, S., & Loucks-Horsley, S. (1999). Designing Professional Development for Science and Mathematics Teachers: Decision Points and Dilemmas. *NISE Brief*, 3(1).

- Murphy, J. (1999). *The Quest for a Center: Notes on the State of the Profession of Educational Leadership*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.
- Murphy, J., Hawley, W., & Young, M. (2005). Redefining the education of school leaders: Scaffolding a learning-anchored program on the ISLLC standards. *NCPEA Education Leadership Review*, 62(2), 48-57.
- National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's Future Report*. Teachers College, Columbia University.
- Naylor, C. (1997). Developing Pro-Active Research Roles for Teacher Unions. *BCTF Research Report, Section XIV 97-TR-01*. Paper presented at the American Educational Research Association (AERA) Conference, Chicago, April. Retrieved October 12, 2005, from <http://www.bctf.ca>
- Nevillis, P. (2003). Cruising the cerebral superhighway. *Journal of Staff Development*, 24(1), 20-23.
- Newmann, F., & Associates. (1996). *Authentic Achievement: Restructuring schools for Intellectual Quality*. San Francisco: Jossey-Bass.
- Newmann, F., & Wehlage, G. (1993). Five Standards of Authentic Instruction. *Educational Leadership*. 50, 8-12.
- Newmann, F., King, M., & Rigdon, M. (1997). Accountability and school performance: implications from restructuring schools. *Harvard Educational Review*, 67(1), 41-74.

Newmann, F., King, M., & Youngs, P. (2000). Professional Development that addresses school capacity: Lessons from urban elementary schools. *American Journal of Education*, 108(4), 259-299.

Noyce, P. (2006). Professional Development: How do we know if it works? [commentary]. *Education Week*, 26(3), 36-37, 44.

Nye, J. (2002). *The Paradox of American Power: Why the World's Only Superpower Can't Go It Alone*. Oxford: Oxford University Press.

Ontario College of Teachers (OCT), (2002). *Supporting Teaching Excellence: Teacher Performance Appraisal Manual*. Toronto. Retrieved November 30, 2004, from <http://www.oct.ca/home.aspx>

Ontario College of Teachers. (2006). eVote. *Professionally Speaking* (December).

Ontario Ministry of Education. (2004a). *Me Read, No Way*. Toronto, Ontario. Retrieved January 16, 2005, from www.edu.gov.on.ca/eng/document/brochure/meread/meread.pdf

Ontario Ministry of Education (2004b). Teacher Excellence-Unlocking Student Potential Through Continuing Professional Development. August 16, v.2. Retrieved online November 2, 2005, from www.edu.gov.on.ca

Ontario Ministry of Education, (2002). *Teacher Performance Appraisal Manual and Approved Forms and Guidelines*. Toronto, OMET. Retrieved September 21, 2005, from www.edu.gov.on.ca/eng/teacher/manual.pdf.

Ontario Secondary School Teachers Federation (OSSTF), (1997). *Issues in Ontario Education. Tory Mismanagement: Secondary School Curriculum*. Retrieved October 16, 2006 from <http://www.osstf.on.ca/www/issues/eduwatch/issue5pdf>

- Ontario Secondary School Teachers Federation (OSSTF), (2002). *From Applied to Applause*. Retrieved May 24, 2004, from <http://www.osstf.on.ca/www/issues/eduwatch/issue5pdf>
- Orstein, A., & Hunkins, P. (1998). *Curriculum: Foundations, principles, and issues*. Needham Heights: Allan and Bacon.
- Pajares, F. (2002). *Self-Efficacy beliefs in academic contexts. An outline*. Retrieved September 21, 2005, from <http://des.emory.edu/mfp/efftalk.html>
- Patton, M. (1987). *How to Use Qualitative Methods in Evaluation*. Newberry Park, California: Sage Publications Inc.
- Patton, M. (1990). *Qualitative Evaluation and Research Methodology* (2nd ed.): California, Sage Publications.
- Peterson, P., McCarthy, S., & Elmore, R., F. (1996, Spring). Learning From School Restructuring. *American Educational Research Journal*, 33(1), 119-153.
- Peterson, S., & Spiker, B. (2005). Establishing the Positive Contributory Value of Older Workers: A Positive Psychology Perspective. *Organizational Dynamics*, 34(2), 153-167.
- Pettigrew, A. (1997). What is a processual analysis? *Scandinavian Journal of Management*, 13, 337-348.
- Phillips, S. (2002). *Teacher Quality in Canada-Report*: SAFE Publications.
- Poole, W. (1995). Reconstructing the teacher-administrator relationship to achieve systematic change. *Journal of School Leadership*, 15(6), 565-596.

- Popkewitz, T., Tabachnick, R., & Wehlage, G. (1982). *The Myth of Educational Reform: A Study of School Responses to a Program of Educational Change*. Madison, WI: University of Wisconsin Press.
- Pritchard, R., & Marshall, J. (2002). Professional Development in Healthy vs Unhealthy Districts: top 10 characteristics based on research. *School Leadership & Management, 22*(2), 113-141.
- Prussia, G., & Kinnicki, A. (1996). A motivational investigation of group effectiveness using social-cognitive theory. *Journal of Applied Psychology, 81*(2), 187-198.
- Putman, R., & Borko, H. (2000). What Do New Views of Knowledge and Thinking Have To Say about Research on Teacher Learning? *Educational Researcher, 29*(1), 4-15.
- Quint, J. (2006). *Meeting Five Critical Challenges of High School Reform*. Retrieved September 12, 2006, from <http://www.mdrc.org/publications/428/execsum.html>
- Radloff, A. (1990). *For successful open learning, train for self-regulation*. Curtin University of Technology. Retrieved online June 5, 2000, from <http://www.ascilite.org.au/aset-archives/confs/olnt90/radloff1.html>
- Randi, J., & Zeichner, K. (2004). New visions of teacher professional development. In M. S. D. Miretzky (Ed.), *Developing the teacher workforce*. 103rd yearbook of the National Society for the Study of Education (Part 1, Chapter 6). Chicago: University of Chicago Press.
- Ranson, S. (2003). Public accountability in the age of neo-liberal governance. *Journal of Educational Policy, 18*(5), 459-480.

- Ravitch, D. (2000). *Left back: a century of failed school reforms*. New York: Simon & Schuster.
- Reeves, D. (2004). *Accountability for Learning: How Teachers and School Leaders Can Take Charge*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Resnick, L. (2005). Teaching Teachers: Professional Development to Improve Student Achievement. *Research Points: Essential Information for Education Policy*, 3(1).
- Richards, L., & Richards, T. (1991). The Transformation of Qualitative Method: Computational Paradigms and Research Processes. In N. Fielding & R. Lee (Ed.), *Using Computers in Qualitative Research* (pp. 38-53). London: Sage.
- Richardson, V. (1997). *Constructivist Teacher Education: Building a World of New Understanding*. London: Falmer Press.
- Richardson, V. (2003). The Dilemmas of Professional Development. *Phi Delta Kappan*, 84(5), 401-406.
- Rivkin, S., Hanushek, E., & Kain, J. (1998). *Teachers, Schools, and Academic Achievement*. New York: Association for Public Policy Analysis and Management.
- Roher, E. M., & Wormwell, S. A. (2000). *An educator's guide to the role of the principal*. Aurora, ON: Aurora Professional Press.
- Rosenholtz, S. (1989). *Teachers' workplace: The social organization of schools*. New York: Longmans.
- Ross, J. (1998). The antecedents and consequences of teacher efficacy. In J. Brophy (Ed.), (Vol. 7, pp. 49-73). Greenwich: JAI Press Inc.

- Ross, J., & Bruce, C. (2007). Teacher self-assessment: A mechanism for facilitating professional growth. *Teaching and Teacher Education*, 23(2), 146-159.
- Ross, J., & Gray, P. (2006a). School Leadership and Student Achievement: The Mediating Effects of Teacher Beliefs. *Canadian Journal of Education*, 29(3), 798-822.
- Ross, J., & Gray, P. (2006b). Transformational Leadership and Teacher Commitment to Organizational School Effectiveness and Values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement*, 17(2), 179-199.
- Rubin, H., & Rubin, I. (1995). *Qualitative Interviewing: The Art of Hearing the Data*. Thousand Oaks, CA: Sage.
- Ryan, T., & Joong, P. (2005). Teachers' and Students' Perceptions of the Nature and Impact of Large-Scale Reforms. *Canadian Journal of Educational Administration and Policy*, 38(April).
- Sackney, L., Walker, K., & Mitchell, C. (2005). *Building Capacity for Learning Communities: Schools that Work*, from http://www.ice.deusto.es/RINACE/reice/Vol3n1_e/Sackneyetal.pdf.
- Salaman, G. (1995). *Managing*. Buckingham: Open University Press.
- Sammons, P. (1996). Complexities in the judgement of school effectiveness. *Educational Research and Evaluation*, 2(2), 113-149.
- Schein, E. H. (1999). *The corporate culture survival guide: sense and nonsense about culture change* (1st ed.). San Francisco, Calif.: Jossey-Bass.

- Schlechty, P., & Whitford, B. (1983). The organizational context of school systems and the functions of staff development. In G. Griffin (Ed.), *Staff Development. Eighty-second Yearbook of the National Society for the Study of Education* (pp. 62-91). Chicago: University of Chicago Press.
- Schuller, T., Brassett-Grundy, A., Green, A., Hammond, C., & Preston, J. (2002). *Continuity and Change in Adult Life. Wider Benefits of Learning Research Report*. London: Institute of Education.
- Schutz, A. (1967). *The Phenomenology of the Social World*. Evanston, Ill: Northwestern University Press.
- Schwandt, T. (1994). *Constructivist, interpretivist approaches to human inquiry*. In N. Denzin & Y. Lincoln. *Handbook of qualitative research* (pp.118-137). Thousand Oaks, CA: Sage.
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics and social construction. In *Handbook of qualitative research* (pp. 189-213). Thousand Oaks, CA: Sage.
- Scribner, J., Hager, D., & Warne, T. (2002). The Paradox of Professional Community: Tales from Two High Schools. *Educational Administration Quarterly*, 38(1), 45-76.
- Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.
- Sergiovanni, T. J. (1992). *Moral leadership: getting to the heart of school improvement* (1st ed.). San Francisco: Jossey-Bass Publishers.

- Sergiovanni, T. (1997). *Moral Purpose, Community Must Guide School Reform, Says Sergiovanni*. Retrieved February 2, 2004, from www.nsd.org/library/publications/developer/dev12-96.cfm
- Sergiovanni, T. (2000). *The lifeworld of leadership: creating culture, community, and personal meaning in our schools*. San Francisco: Jossey-Bass.
- Sergiovanni, T. J. (2001). *The principalship : a reflective practice perspective* (4th ed.). Boston ; Toronto: Allyn & Bacon.
- Sergiovanni, T. J., & Starratt, R. J. (2002). *Supervision: a redefinition* (7th ed.). Boston: McGraw-Hill.
- Shaha, S., Lewis, V., O'Donnell, T., & Brown, D. (2004). Evaluating professional development: An approach to verifying program impact on teachers and students. *Journal of Research in Professional Learning*. Retrieved October 12, 2006, from <http://www.nsd.org>
- Shaughnessy, J., & Zechmeister, E. (2000). *Research Methods in Psychology*. (5th ed.). New York: McGraw-Hill.
- Showers, B., Murphy, C., & Joyce, B. (1996). The River City Program: Staff Development Becomes School Improvement. In B. a. C. Joyce, E (Ed.), *Learning Experiences in School Renewal: An Exploration of Five Successful Programs*. Eugene, Oregon: ERIC. [ED401 600](http://eric.ed.gov/).
- Shulman, L. (1999). Professing educational scholarship. In E. Lagemann & L. Shulman (Ed.), *Issues in education research: Problems and Possibilities*. (159-165). San Francisco: Jossey-Bass.

- Siegel, W., & Yates, C. (2007). Improving the Evaluation of Professional Development Presentations Using Retrospective Pre-testing of Existing Knowledge and Self-Efficacy. Retrieved March 14, 2007, from <http://cnx.org/content/m14362/latest/>
- Sizer, T. R. (1992). *Horace's school: Redesigning the American high school*. Boston: Houghton Mifflin.
- Smaller, H., Hart, D., Clarke, R., & Livingstone, D. (2001). Informal/Formal Learning and Workload Among Ontario Secondary School Teachers. Retrieved January 28, 2006, from <http://www.oise.utoronto.ca/depts/sese/csew/nall/res/index.htm>
- Smaller, H., Tarc, P., Antonelli, F., Clark, R., Hart, D., & Livingstone, D. (2005). *Canadian Teachers Learning Practices and Workload Issues: Results from a National Teacher Survey and Follow-up Focus Groups*. Paper presented at the Paper for the Third Annual WALL Conference. June 2005. www.wallnetwork.ca
- Smylie, M., Allensworth, E., Greenberg, R., Harris, R., & Liuppescu, S. (2001). *Teacher Professional Development in Chicago: Supporting Effective Practice*. Chicago: University of Chicago.
- Snow-Renner, R., & Lauer, P. (2005). *Professional Development Analysis*. Retrieved June 18, 2006, from www.mcrel.org
- Soulsby, D., & Swain, D. (2003). *A Report on the Award-bearing INSET Scheme*. London: DfED.
- Sparks, D. (1997). A New Vision for Staff Development. *Principal*, 77(1), 20-22.

- Sparks, D. (1999). *How can schools make time for teacher learning?*, from www.nsdcc.org/library/authors/sparks.cfm
- Sparks, D. (2002). *Designing powerful staff development for teachers and principals*. Oxford, OH: National Staff Development Council.
- Sparks, D., & Loucks-Horsley, S. (1990). Models of staff development. In M. Houston (Ed.), *Handbook of Research in Teacher Education*. New York: MacMillan.
- Sparks, D., & Hirsh, S. (1997). *A New Vision of Staff Development*. Alexandria, VA: Association for Supervision and Curriculum Development and National Staff Development Council.
- Speck, M. (1996). Best practice in professional development for sustained educational change. *ERS Spectrum*, 14(2), 33-41.
- Spillane, J. (2002). District policy making and state standards: A cognitive perspective on implementation. In A. Hightower, M. Knapp, J. Marsh, & M. McLaughlin (Ed.), *School Districts and Instructional Renewal*. New York, NY: Teacher College Press.
- Spillane, J., & Thompson, C. (1997). Reconstructing Conceptions of Local Capacity: The Local Education Agency's Capacity for Ambitious Instructional Reform. *Educational Evaluation and Policy Analysis*, 19(2), 185-203.
- Spillane, J., & Timperley, H. (2004). *Practice is the heart of the matter: Distributed leadership and Networked Learning Communities*. Retrieved June 19, 2003, from <http://www.ncsl.org.uk/networked/networked-research.cfm>

- Squire, F. (1998). *Action Research and Standards of Practice: Creating Connections within the Ontario Context*. Retrieved July 12, 1999, from <http://www.educ.queensu.ca/~ar/sstep2/papers.htm>
- Squire, F. (1999). Action Research & Standards of Practice for the Teaching Profession: Making Connections. *Ontario Action Research*, 2(12).
- Stajkovic, A., & Luthans, F. (1998). Self-Efficacy and Work Related Performance: A Meta-Analysis. *Psychological Bulletin*, 124(2), 240-261.
- Stake, R. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: Sage Publications.
- Starratt, R. J. (1999). The History of Supervision, Roles and Responsibilities. Retrieved June 8, 2005, from <http://education.stateuniversity.com>
- Starratt, R. J. (2001). Democratic leadership theory in late modernity: an oxymoron or ironic possibility. *International Journal of Leadership in Education*.
- Starratt, R. J. (2003). *Centering educational administration: Cultivating meaning, community, responsibility*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Stodel, E. (2004). *Mental Skills Training for Enjoyment: Exploring Experiences, Processes, and Outcomes with Recreational Golfers*. Ph.D Thesis. Ottawa, University of Ottawa, Canada.
- Stoll, L. (2004). Leadership learning: designing a connected strategy. Retrieved May 12, 2005, from <http://www.ncsl.org.uk/mediastore/image2/kpool-evidence-stoll.pdf>
- Stoll, L., Fink, D., & Earl, L. (2003). *It's about learning: And it's about time*. London, England: The Falmer Press.

- Stiggins, R. (2002). Assessment Crisis: The Absence of Assessment for Learning. *Phi Delta Kappan*, 83(10), 758-765.
- Supovitz, J., & Turner, H. (2000). The Effects of Professional Development on Science Teaching Practices and Classroom Culture. *Journal of Research in Science Teaching*, 37(9), 963-980.
- Talbert, J. (2002). Professionalism and Politics in High School Teaching Reform. *Journal of Educational Change*, 3(3-4), 339-363.
- Taylor, K., Marienau, C., Fiddler, M. (2000). Developing Adult Learners: Strategies for Teachers and Trainers. San Francisco, California, Jossey-Bass.
- The Ontario College of Teachers, OCT (2006). The Ethical Standards for the Teaching Profession. Retrieved August 3, 2006, from http://www.oct.ca/standards/ethical_standards
- Thibault, C., & Hinds, M. (2002). *Position Paper on the Provincial Testing Program*. Retrieved January 29, 2007, from <http://www.ontariodirectors.ca>
- Thrupp, M. (2003). The School Leadership Literature in Managerialist Times: exploring the problem of textual apologism. *School Leadership and Management*, 23(2), 149-172.
- Toronto & York Region Labour Council. (2006). *Budget Crisis Consultation*. Retrieved October 12, 2006, from <http://www.labourcouncil.ca/tdsbpresent.pdf>
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: capturing the elusive construct. *Teaching and Teacher Education*, 17(7), 783-805.

- Tschannen-Moran, M., & Barr, M. (2004). Fostering Student Learning: The Relationship of Collective Teacher Efficacy and Student Achievement. *Leadership and Policy in Schools, 3*(3), 189-209.
- Tucker, M. S., & Coddling, J. B. (2002). *The principal challenge: leading and managing schools in an era of accountability* (1st ed.). San Francisco: Jossey-Bass.
- Tucker, P., & Stronge, J. (2005). *Linking Teacher Evaluation and Student Learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- UNCED. (1992). *Capacity Building, Agenda 21*. United Nations Conference on Environment and Development. Retrieved March 14, 2005, from www.nssd.net/references/Conventions/Conventions.html
- Vlăsceanu, L., Grunberg, L., & Parlea, D. (2004). *Quality Assurance and Accreditation: A Glossary of Basic Terms and Definitions*, Bucharest, UNESCO-CEPES. Retrieved May 3, 2003, from <http://www.cepes.ro/publications/Default.htm>
- Waddell, D., & Sohal, A. (1998). Resistance: A constructive tool for change management. *Management Decision, 36*(8), 543-548.
- Waller, W. W. (1965). *The Sociology of Teaching*. New York, John Wiley & Sons.
- Walsh, P. (2002). Reclaiming Staff Development: Some Reflections on Research. *Education and Social Justice, 41*(1), 56-61.
- Walsh, P. (2006). Narrowed horizons and the impoverishment of educational discourse: teaching, learning and performing under the new educational bureaucracies. *Journal of Education Policy, 21*(1), 95-117.
- Wayman, J., & Stringfield, S. (2006). Data Use for School Improvement: School Practices and Research Perspectives. *American Journal of Education, 112*(4).

- Weick, K. (2007). Drop Your Tools: On Reconfiguring Management Education. *Journal of Management Education*, 31(1), 5-16.
- Weick, K., & McDaniel. (1989). How professional organizations work: Implications for school organization and management. In T. Sergiovanni & J. Moore (Eds.), *Schools for Tomorrow*. Boston: Allyn and Bacon.
- Wenger, E. (1998). Communities of Practice. Learning as a Social System. In *Systems Thinker*. Retrieved June 15, 2004, from <http://www.co-i-l.com/coil/knowledge-garden/cop/lss.shtml>
- Whitehurst, G. (2002). *Evidence-based education*. Washington: DC, U.S. Department of Education. Retrieved January 26, 2005, from <http://harcourtassessment.com>
- Willinsky, J. (2001). Extending the Prospects of Evidence-Based Education. *Insight* 1(1). Retrieved February 12, 2004, from <http://pkp.sfu.ca/files/Evidence-BasedEducation.pdf>
- Willms, J. D. (1999). Basic Concepts in Hierarchical Linear Modeling with Applications for Policy Analysis. In Gregory J. Cizek (Ed.). In *The Handbook of Educational Policy* (pp. 473-490). San Diego: Academic Press.
- Wilson, S., & Berne, J. (1999). Teacher Learning and the Acquisition of Professional Knowledge: An Examination of Research on Contemporary Professional Development. *Review of Research in Education* 24, 173-209.
- Weissglass, J. (2002). Inequity in Mathematics Education: Questions for Educators. *The Mathematics Educator* 12(2), 34-39.
- Wheatley, K. (2002). The potential benefits of teacher efficacy doubts for educational reform. *Teaching and Teacher Education*, 18(1), 5-22.

- Wineburg, S., & Grossman, P. (1998). Creating a community of learners among high school teachers. *Phi Delta Kappan*, 79(5), 350-353.
- Wolcott, H. (1999). *Ethnography: A Way of Seeing*. Walnut Creek, CA: Altarmira Press.
- Woolfolk Hoy, A., & Burke-Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356.
- Yi, J. (2005). Effective Ways to Foster Learning. *Performance Improvement Journal*, 44(1), 34-38. Retrieved April 14, 2006, from www.ispi.org/publications/pitocs/pijan2005.htm
- Yin, R. (1994). *Case Study Research: Design & Methods*. 2nd ed. Thousand Oaks, CA: Sage.
- Yin, R. (2004). *Case study research: Design and methods*. Beverly Hills, CA: Sage Publishing.
- Young, V. (2006). Teachers' Use of Data: Loose Coupling, Agenda Setting, and Team Norms. *American Journal of Education*, 112, 521-548.
- Younghusband, L. (2007). In *Unsafe to Teach* [Documentary]. Toronto: Canadian Television (CTV).
- Youngs, P. (2001). District and State Policy Influences on Professional Development and School Capacity. *Educational Policy*, 15(2), 278-301.
- Youngs, P., & King, M. (2002). Principal Leadership for Professional Development to Build School Capacity. *Educational Administration Quarterly*, 38(5), 643-670.
- Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychologist*, 25, 89-91.

APPENDICIES

Appendix A: Summary Guidelines for Field work.

1. Be descriptive in taking field notes.
2. Gather a variety of information from different perspectives.
3. Cross-validate and triangulate by gathering different kinds of data.
4. Use quotations; represent program participants in their own terms.
5. Select key informants wisely and keep in mind that their perspectives are limited.
6. Be aware of and sensitive to the different stages of fieldwork:
 - (a) Build trust and rapport at the entry stage.
 - (b) Stay alert and disciplined during middle-phase of the routine fieldwork.
 - (c) Focus on pulling together a useful synthesis as fieldwork draws to a close.
 - (d) Be disciplined and conscientious: take detailed field notes at all stages of the research.
 - (e) Experience the setting while maintaining an analytical perspective.
 - (f) Clearly separate description from interpretation and judgment.
 - (g) Provide formative feedback as part of the verification process of fieldwork.
 - (h) Time that feedback carefully; observe its impact.
 - (i) Include in your field notes and observation reports your experiences, thoughts, and feelings.

From "A synthesis of ethnographic research," by M. Genzuk, 2004
http://www-rcf.usc.edu/~genzuk/Ethnographic_Research.html

Appendix B: Summary Guidelines for Interviewing

1. Through all phases of interviewing, keep centered on the purpose of the research endeavour.
Let that purpose guide the interviewing process.
2. The fundamental principle of qualitative interviewing is to provide a framework within which respondents can express their own understandings in their own terms.
3. Understand the strengths and weaknesses of different types of interviews: the informal conversational interview; the interview guide approach; and the standardized open-ended interview.
4. Select the type of interview (or combination of types) that is most appropriate to the purposes of the research effort.
5. Understand the different kinds of information one can collect through interviews: behavioural data; opinions; feelings; knowledge; sensory data; and background information.
6. Think about and plan how these different kinds of questions can be most appropriately sequenced for each interview topic, including past, present, and future questions.
7. Ask truly open-ended questions.
8. Ask clear questions, using understandable and appropriate language.
9. Ask one question at a time.
10. Use probes and follow-up questions to solicit depth and detail.
11. Communicate clearly what information is desired, why that information is important, and let the interviewee know how the interview is progressing.
12. Listen attentively and respond appropriately to let the person know he or she is being heard.
13. Avoid leading questions.
14. Understand the difference between an in-depth interview and an interrogation. Qualitative evaluators conduct in-depth interviews; police investigators and tax auditors conduct interrogations.
15. Establish personal rapport and a sense of mutual interest.
16. Maintain neutrality toward the specific content of responses. You are there to collect information not to make judgments about that person.
17. Observe while interviewing. Be aware of and sensitive to how the person is affected by and responds to different questions.
18. Maintain control of the interview.
19. Tape record whenever possible to capture full and exact quotations for analysis and reporting.
20. Take notes to capture and highlight major points as the interview progresses.
21. As soon as possible after the interview, check the recording for malfunctions; review notes for clarity; elaborate where necessary; and record observations.
22. Take whatever steps are appropriate and necessary to gather valid and reliable information.
23. Treat the person being interviewed with respect. Keep in mind that it is a privilege and responsibility to peer into another person's experience.
24. Practise interviewing. Develop your skills.
25. Enjoy interviewing. Take the time along the way to stop and "hear" the roses.

From How to Use Qualitative Methods in Evaluation, by M. Patton, 1987, Newberry Park, California, Sage Publications Inc.

**Appendix C: Open-ended Interview Questions for Case Study:
Teachers Professional Development and Its Impact on their Practices**

1. The term professional development may mean different things to different people.
What does the term professional development mean to you and should it be mandatory or self-directed?
2. What do you perceive as being the purpose of professional development?
3. What type(s) of professional development has your school offered this year and which one or ones would you say were effective or ineffective and why?
4. The needs of the individual and the needs of the school often differ with reference to professional development. Can the needs of each be reconciled?
5. To what extent do you want to be involved in the planning of professional development that affects your practice?
6. What difference does it make to you concerning the time, the place and who delivers professional development?
7. What area of professional development did you state as a need in your Annual Learning Plan this year? Have you been able to pursue these objectives?
8. In your opinion, is professional development the responsibility of the individual, the school, the school board, or the government?
9. What types of professional development have an impact on your practice?
10. What in your practice has changed that resulted from professional development sessions that occurred at the high school?
11. What metaphor, analogy or conceptual model best explains what professional development could mean to you?
12. Do you or the school keep records of your professional development and how do you use those records?

Appendix D: Letter of Invitation and Information to Participants

November 2004

Dear Colleagues:

My name is Marjorie Hinds. I am conducting a research study that seeks to understand the meaning of professional development and its impact on teacher practice. The study will focus on teachers' perspectives of their professional development and examine, interpret, and describe the context (culture, resources, relationships, and rules) surrounding professional development in one high school setting. This research study is part of a doctoral thesis (PhD in Education) offered at the University of Ottawa. My thesis supervisor is Dr. Marie Josée Berger, Dean of the Faculty of Education at the University of Ottawa. She can be reached at mjberger@uottawa.ca or by telephone 613- 562-5800 ext. 4057.

With this letter, I am inviting you to be part of my research project entitled A Case Study: The Meaning and Impact of Professional Development on Teachers in One Ontario High School. I have submitted my research request to the Ottawa-Carleton Research Advisory Committee and your principal. They have agreed to let me contact you to pursue the possibility of carrying out the study in your school. For this study, I am looking for twenty teachers who want to contribute to the debate on professional development. All perspectives are welcome. I want to assure you that this study is not designed to judge or evaluate you or your school. At all times, your privacy and confidentiality will be protected. Your responses/comments/quotations will not be attributed to you (pseudonyms will be used for you and your school). Also, all data collected from this study will be stored in a locked filing cabinet and computer files are password protected.

Should you agree to participate in this study, the time commitment needed is a total of three hours. One hour is set aside to interview you. In this interview, I would like to audio tape the session to ensure that I don't miss any important information. A second hour is set aside to review the transcripts of your interview. This will ensure that I have accurately captured what you have said or intended to say. Following this feedback session, the tape will be erased. The third hour is set aside to obtain your feedback as well. This time I will be asking for your feedback on my observations on the context (culture, resources, relationships, and rules) surrounding professional development in your high school.

Participation in the study is voluntary. There are no negative consequences to either choosing or not choosing to participate, or withdrawing from participation in the study at any time. Participants in the study may benefit in the following manner:

Firstly, the transcripts from the interview will be shared with the participants and as such will serve as a record of the participants' thoughts on professional development at one point in time; the transcripts could act also as a source of critical reflection for the participants. Secondly, the participants will have a voice in the research literature and will receive a copy of the research and its findings at the end of this thesis writing process.

If you would like to be involved in this study, please complete the "Agreement and Consent Form" attached to this letter and return it in the stamped addressed envelop by November 30. Should you have any questions, I would be pleased to answer them. Please call me or send me an e-mail.

Respectfully yours,

Marjorie Hinds

Appendix E: Lettre d'invitation aux participants

Chers enseignants et enseignantes :

Mon nom est Marjorie Hinds. Je suis une étudiante au doctorat en Éducation à l'Université d'Ottawa. Mon projet de thèse de doctorat s'intitule *Une étude de cas: le perfectionnement professionnel et son Impact sur l'amélioration de la pratique dans une école secondaire de l'Ontario*. Ma superviseuse est Professeure Marie-Josée Berger de la Faculté d'éducation, à l'Université d'Ottawa que vous pouvez rejoindre par courriel deduc@uottawa.ca ou par tel: 613- 562-5800, poste 4057.

Je vous invite à participer à collecte des données de mon projet de thèse. Cette recherche se penche sur votre compréhension du perfectionnement professionnel dans une école secondaire de l'Ontario. Elle veut également découvrir les conditions qui doivent être mises en place dans une école secondaire pour que les enseignants (tes) et la direction puissent effectuer le transfert des connaissances et des habiletés acquises lors des séances perfectionnement professionnel.

Les stratégies utilisées pour recueillir les données de cette recherche sont les suivantes: entrevues enseignants(tes)/direction et observation. Je demande que chacun(e) des enseignants(tes) qui acceptera volontairement de participer à cette étude de consacrer au total trois sessions d'entrevues avec moi sur une période de trois mois. Chacune des sessions sera d'une durée approximative de 40 à 60 minutes. Ces sessions auront lieu à votre école à l'heure et à l'endroit qui vous conviennent.

La première session consistera en une entrevue (avec ou sans enregistrement audio) au cours de laquelle je vous demanderai de répondre à douze questions ouvertes. Le but de l'utilisation de l'enregistrement est de vous rassurer de l'exactitude des données recueillies et celles qui seront utilisées. Aucun nom des personnes et des endroits ne sera utilisé. La deuxième session a pour but de revoir avec vous les données recueillies lors de la première session. Ainsi vous pourrez, s'il y a lieu, ajouter, modifier ou retrancher certaines parties des données qui ne refléteraient pas avec exactitude ce que vous avez dit ou aviez l'intention de dire. La troisième session suite à mes observations sur le contexte (culture, relations, ressources et règlements) dans lequel se situe le perfectionnement professionnel, je vous demanderai de vous engager dans des conversations libres; de clarifier pour moi certains points reliés à mes observations, de lire mes notes et m'en donner vos réactions.

Cette étude a reçu l'approbation du comité d'éthique de l'Université d' Ottawa. De plus, le comité consultatif pour la recherche d'Ottawa-Carleton dont les membres proviennent du Conseil des Écoles Catholiques d'Ottawa- Carleton et du Conseil Scolaire d'Ottawa- Carleton de même que directeurs d'école ont donné leur appui.

Si vous décidez de participer à cette étude il vous sera nécessaire de signer une formule de consentement autorisant la chercheuse à recueillir et à utiliser, aux fins d'une thèse doctorale et autres publications, les données que vous lui aurez communiquées lors des entrevues et l'envoyer à l'adresse sur l'enveloppe. On vous assure également de la confidentialité des données et de votre anonymat. **S'il vous plait, gardez une copie du formulaire de consentement.**

Si vous avez des questions ou des inquiétudes reliées à cette étude, n'hésitez pas à communiquer avec moi par courriel au: _____ ou par téléphone au _____.

Merci de votre coopération,

Marjorie Hinds, étudiante doctoral, Université d'Ottawa

Appendix F: Participant Consent Form

I _____ agree to take part in the study entitled

A Case Study: Teacher Professional Development and Its Impact on Practice in One Ontario Secondary School being conducted by Marjorie Hinds through the Faculty of Education, University of Ottawa in partial fulfillment for her doctoral thesis. I agree also to the following terms:

I understand that participation in this study is voluntary and that I may withdraw from the study at any time without having to provide the researcher with justification for the withdrawal.

I understand that this study will involve my being interviewed, as well as being observed and consulted outside of the interview situation.

I grant permission for the interview session to be audio taped and the audiotape to be transcribed. I understand that I may request the researcher to stop the tape at any time during the interview.

I understand that computer files will be password protected; that data collected will be considered confidential at all times, and that all audiotapes, transcripts of tapes, field notes, and computer discs will be kept in a locked filing cabinet in the researcher's home office when they are not being used.

I understand that my real name, my school's name, or any other information that may be personally identifying will not be used in the data or results. Pseudonyms will be used to protect my privacy and confidentiality as well as that of the school.

I understand that my interview tape will be erased once the researcher has completed her notes.

I understand that, in keeping with the University of Ottawa's Ethical Guidelines, all transcripts from the research (that have identifying names and places removed) will be conserved in the thesis supervisor's office at the university for a period of seven years following the publication of the thesis.

I grant permission for the data collected from the interview to be used in the process of Marjorie Hind's completing a PhD (Education) degree, including a dissertation and any further publication(s).

I understand that I may contact the researcher at _____ or her supervisor for this study, Dr. Marie-Josée Berger at deduc@uottawa.ca or 613-562-5800 Ext.4057, should I have any questions about the study.

I understand if I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 159, (613) 562-5841 or ethics@uottawa.ca

I understand that there are two copies of the Consent Form, one of which I can keep.
I would like a copy of the research findings from this study. Please send it to this address.

Participant's signature: _____ Date: _____
Researcher's signature: _____ Date: _____

Appendix G: Formule de consentement des participants

Je _____ consens à participer à l'étude intitulée, Une étude de cas: le perfectionnement professionnel et son impact sur l'amélioration de la pratique enseignante dans une école secondaire de l'Ontario. Cette étude dirigée par Marjorie Hinds se fait dans le cadre d'un projet de thèse de doctorat à la Faculté de l'Éducation de l'Université d'Ottawa. J'accepte également les conditions ci-bas mentionnées.

Je comprends que ma participation à cette étude est volontaire et que je peux à quelque moment que ce soit, me désister de cet engagement sans avoir à le justifier auprès de la chercheuse.

J'autorise la chercheuse à me rencontrer à l'école secondaire au cours de trois différentes journées pour une session d'une durée de quarante à soixante minutes chacune dans le cadre de cette recherche. L'heure et l'endroit spécifique de la rencontre seront à ma discrétion.

J' autorise l'enregistrement audio des sessions d'entrevues de même que leur transcription. Je comprends que je pourrai à n'importe quel moment exiger de la chercheuse l'interruption des enregistrements audio.

Je comprends que toutes les données recueillies seront confidentielles en tout temps. Lorsqu'elles ne seront pas utilisées par la chercheuse, tous les enregistrements audio, les transcriptions, les notes et les disquettes seront conservés en filière sous clef dans les bureaux de la chercheuse à son domicile. Le contenu des fichiers sera protégé par un mot de passe.

Je comprends que mon nom, celui de l'école ou toute autre information de nature à m'identifier ne seront pas mentionnés dans les données et dans les résultats de l'étude. Des pseudonymes seront utilisés pour préserver ma vie privée, la confidentialité des données, mon anonymat et celui de l'école.

Je comprends que mes entrevues enregistrées sur bandes audio seront effacées dès que la chercheuse aura complété ses notes.

Je comprends que, conformément aux lignes de conduite en matière d'éthique établies par l'Université d'Ottawa, toutes les transcriptions reliées à cette recherche (mots servant à identifier personnes ou endroits ayant été éliminés) seront conservées au bureau de la superviseure de thèse pour une période de sept ans suite à la publication de la thèse.

J'autorise Marjorie Hinds à utiliser les données recueillies lors des entrevues pour compléter son doctorat en philosophie (éducation) incluant dissertations et autres publications subséquentes à son doctorat.

Je comprends que pour tout renseignement additionnel concernant cette étude, je peux communiquer avec la chercheuse à _____ sa superviseure de cette étude Professeure Marie-Josée Berger à l'Université d'Ottawa que vous pouvez rejoindre par courriel à deduc@uottawa.ca ou par tel: 613- 562-5800 poste 4057.

Je comprends que pour tout renseignement sur mes droits comme participant à une recherche, je peux m'adresser au Responsable de la déontologie en recherche, Université d'Ottawa, 550, rue Cumberland, pièce 159, (613) 562-5841 ou ethics@uottawa.ca

Je comprends qu'il y a deux copies du formulaire de consentement, dont une copie que je peux garder.

Je désire recevoir une copie des résultats de cette recherche. Veuillez me l'envoyer à l'adresse suivante

Signature du participant: _____ Date: _____
Signature du rechercher : _____ Date : _____

Appendix H: Professional Development Activities for Teachers

Within the school

- two school professional development days
- Christian Community Day
- peer observation
- collaborative planning and evaluation
- rubric building
- using data from EQAO and consistency in ministry levels
- part of monthly staff meetings
- department heads meetings
- curriculum leaders meetings
- mentoring for leadership positions
- associate teacher
- mentoring beginning teachers
- feedback from Teacher Performance Appraisal
- literacy and other committee work
- develop new curriculum modules / programs

Within family of schools

- mentoring colleagues
- subject meetings
- collaborative lesson planning

Within the school board

- department heads' board examinations review
- action research
- webpage development
- Institute days
- IT classrooms

Outside of the school environment

- AQ courses
- Master's program
- coaching certificate
- attending conferences
- taking interest courses at university/college/institute
- using online research
- engaging in specialist subject associations
- reading professional literature
- curriculum writer
- forming partnerships with colleges, business and universities

Appendix I: School Artifacts and Meetings Researcher Attended

Materials available in the staffroom available to all staff

Curriculum Update: News and Information for Ontario Educators, December 2004
 The Leadership Journey: OCCSB (Booklet). Leadership development program offered through the Staff Development, Evaluation and Research Department. Introduction to Leadership; Leadership Training for Prospective Vice- Principals & Principals; Mentorship; Action Research; Professional Reading
 The school newspaper, November 2004, vol. 3, issue 1.
 Good News newspaper, Winter 2004-2005. OCCSB pamphlet
 e-learning flyer. Registration from January 4 to February 4, 2005.
 www.VirtualAcademy.ca Fee is \$85. There is a refundable textbook fee.

Materials supplied at staff meetings this researcher attended

Think Literacy published by Queen's Printer for Ontario, 2003. This is a cross-curricular approach to literacy for grades 7- 12 and a resource document for reading, writing, and oral communication strategies.

Me Read-No Way is a practical guideline to improving boys' literacy skills.

Think Literacy Success Grades 7- 12. Section 7 of the book deals with professional development and notes the goals, forms and themes for literacy professional development. It also mentions teachers developing learning communities and promoting learning in students through professional development.

February 4, 2005 staff meeting

Professional Learning Online courses package - 79 courses, five hours each, self-directed, Internet or CD delivery. School site licence \$399. Areas covered include curriculum, teaching strategies, student assessment, classroom management, special education, technology, leadership, and communication.

Materials researcher secured from the main office

The Staff Handbook, 2004 - 2005. Part of the mission statement states, "Through dedication and perseverance, we hope to achieve excellence within ourselves and our community".
 Strategic Planning Activity-June 2004: what we do well; what we need to focus on

Staff Meetings researcher attended

November 22, 2005. Staff meeting in the library. PD component consisted of information on the following: literacy/plagiarism/academic integrity.

November 30, 2005. *Preparing for Parent-Teacher Interviews* booklet. Resource package provided and discussed with beginning teachers.

November 31, 2005. Staff Meeting in the library at 2:30 p.m. Head Secretary demonstrated eSIS regarding new changes that will facilitate preparation of class list attendance. (Handout provided).

December 7, 2005. Department head/curriculum leaders meeting to discuss staffing update, exam procedures and grade statistics for reporting semester one. Department heads received a copy of the grade statistics.

January 10, 2005. At the 7/8 staff meeting, teachers discussed Student Option sheet process for recommending students for either applied, academic, or local programs.

January 11, 2005. Report Card; IEPs; Award Winner; Late Arrivals; Examination time; PD day schedule; Exposé program (anti-smoking). Handout provided.

January 25, 2005. Pastoral Team meeting in the conference room Theme: Come to the Water.

February 4, 2005 PD day: Staff Meeting 8:30-9:15; 9:15 to 11:30 self-directed PD. Lunch catered. Afternoon, department meetings and individual planning to the end of day

February 8, 2005. Department head/curriculum leader meetings.

April 5, 2005. Achievement centers-make up versus credit recovery; staff requests binder; Education Week; staff split by panel.

Appendix J: Sample of Field Notes from One PD Day

February 4 and 7, 2005 Professional Development Day

Description

February 4, 2005. I arrived at the school at 7:30 a.m. That day was a designated school board professional development day. It was also a change over day before a new semester began on Monday. The parking lot was virtually empty. As I made my way down the hall nearest the parking lot, the building was quiet. Few people had arrived. I remembered the meeting started at 8:30 a.m. in the chapel. As I turned the corner, I saw the chaplain and custodian bringing chairs into the chapel.

The chapel had a 1.5 x 1.8m painting in front near the altar. I later learned one of the teacher-artists on staff donated the painting. The painting was one of various colours of blues and depicted three bodies in the state of movement. The chaplain said, "We are works of art and called to share our gifts." Prayer service sheets were on each chair. A few chairs were placed facing the rows of chairs for the singers/musicians and readers. Outside the chapel, cafeteria tables were arranged for what I learned later would be an area for a catered lunch paid for by the principal. By 8:25 a.m., the chapel was filled with approximately 65 staff. Members of the French department, the guidance team and some department heads were at different workshops or conferences outside of the school.

As the staff entered, there was loud talking, and excitement filled the air as people beamed to one another to sit here or there. The service started on time. The service followed a regular prayer service format of song, opening prayer, and scripture reading. I made a mental note that the song reflected the banner that was displayed in the atrium: "One in the Spirit." Next, a teacher read the scripture (Ephesians 4:1-7, 11-13). The scripture began with "I call you to lead a life worthy of the calling to which you have been called..." Following the moderately paced reading, the group saw a video for reflection entitled "How to Develop a Professional Learning Community-Passion and Persistence by Richard Dufour. Teachers had 3-4 minutes for reflection on the following four questions. 1. What are our shared hopes for St. Christopher High School? 2. How have I contributed to making these hopes a reality? 3. What specific steps can I take in the second half of the year to make these hopes a reality? 4. If all else fails, how can I ensure that my colleagues and I are having fun as we face the challenges that will face us in the second half of the school year?

Over the past three months, I have been asking the question of whether PD impacts on teachers' practices and how teachers perceive their practice-as a job, a profession, or a calling. The scripture message suggested it is a calling. This message, together with others from the services I attended at this school, reinforced the idea that teachers at this school are expected to think in terms of a calling. "Embrace learning as a fundamental purpose of your school" and "Use data to paint a picture of your current reality" these quotations reflect a few of the messages in the video. I obtained a copy of the script of the video by speaking to the teacher who

introduced the video. Her professor had used the video in the principal's part 1 course, and she felt, as part of the strategic planning committee, the video focused on what the school was trying to achieve.

My reflection: Growth and development from my experience need to be captured in some way on record. The teachers did not exchange their reflection on the questions nor did the organizer make any closing statements. In the coming days more teachers will be added to this staff and some staff members will move to other schools in the system or elsewhere. Without some history of what was done or learned there may be a tendency to keep repeating positive messages but never implementing them or ever finding out whether they have had any effect on our thinking or attitudes.

Three new staff and one replacement staff were welcomed with a school T-Shirt. One member who was leaving the school was in the gym practicing cheerleading with a girls' team. Her gift of wine was set aside.

Following the service, people made their way to the library where the principal thanked the liturgy committee, and the staff reviewed the schedule for the remainder of the day. He began by saying, "Action speaks louder than words" referring to people's commitment to their own professional development. Following a few side jokes, he introduced teachers to professional learning courses sponsored by the board in partnership with a number of other groups and available online. These courses, he noted, were free, dealt with eight areas of interest to teachers and, upon completion, teachers would receive a certificate from the board. The principal proceeded to demonstrate how to gain access and gave a handout that explained in detail what to do. He repeated, "Remember actions speak louder than word." Teachers were asked then to find an area with a computer and explore the online courses (1½ hours). One teacher requested time to explain an Action Research survey that she hoped to administer. She was asked to wait and to do the explanation just before lunch. The afternoon was for teachers to do marking, work on report cards, and get ready for the new semester starting on Monday.

I walked the various floors of the school, and, where I saw an open door, I entered and engaged the teacher in conversation. In each of the four cases, the teachers were people I had not seen in the staff room on a regular basis; in two other cases the teachers were always willing to talk about their experiences.

Later, I engaged a number of teachers during or slightly after lunch in conversation about the Dufour video. Their comments were varied: "Great, it was short and sweet." "Cute, I thought it was good." "It reminded us of what we're about." "That part about collaborative cultures-well that's the ideal- 'embed the ideas'- there's no time" (ending with a sigh). "I liked the technique of keeping the same keyword and changing the idea around it. I'm going to use that in the next Power Point presentation I do for my students. "The humour kept people's interest up, I think!"

My reflections: More than seeing is listening to people's comments about the many, many things that have to be done. Some teachers sounded frustrated and stressed and voiced this frustration and stress to colleagues. Some seem unable to prioritize what is important and what is urgent. This seems particularly true of the less experienced staff who just saw the large number of tasks that needed to be done "all at the same time." Many of the more experienced staff seemed to be able to see the bigger picture and have already prioritized the rest of their day before reaching their classrooms. Perhaps some intervention or suggestions from experienced teachers would have helped.

As lunch was a little late in coming, when they came to the lunch area, teachers were given an Action Research survey to complete. Some took the survey with enthusiasm, and others gave a little snarl as they took a copy. As soon as the food arrived, however, people were anxious to complete the survey so that they could get to lunch.

My reflection: The survey, as explained ahead of time, dealt with the issue of people teaching outside of their specialty area. This may have great implications for student performance and teachers comfort and satisfaction level with their job. The place and the timing allocated for the survey completion indicated that this issue was not a priority with the administration.

February 7, 2005. I opened the school's conference site and downloaded the board's transfer process. There were a total of 19 hits. Some of those were administration and secretarial. I saw the notice for transfers on the staff room (whiteboard) on Friday, February 4. Aside from administration and secretaries an additional 8 female and 5 male teaching staff saved the site. I plan to check with a few of those teachers during this week to gathered further information.

As I sifted through the postings on the conference site, one beginning teacher openly expressed frustration about the pace of things being expected to be done. For example, report cards with learning skills to be complete by Monday and option sheets for Grade 8 before next Friday). The teacher wrote, "Monday eh??? Didn't we just finish Letters of Concern??? Are a majority of people ready for inputting [marks] already...? Is there any chance that we can have another report card pow-wow in a week or two... possibly when I have a clue."

Reflection: There is an openness expressed by more than one individual that things need to be looked at differently and that it's time to step back and examine the demands of the workplace. Organization may need fine tuning or other solutions may need to be put forward to address the constraints of time in relation to tasks.

Appendix K: Follow up Field Notes from Same PD Day

February 7 and February 8. This description is a follow-up from the professional development session held on Friday, February 4, 2005. Throughout the day, as a researcher, I spent time asking one teacher at a time one question: Do you have any comments on the professional development on Friday? To obtain their replies, I wandered into teacher workrooms, saw them at the photocopier or approached them in the lunch room. Teachers' comments revealed a variety of responses that reflected to some extent their own level of preparedness for professional development.

"It was amazing that the principal offered us a choice to do independent PD in the afternoon but really Friday was a turn around day. You can't give me PD when I have report cards due in two weeks. It's ridiculous! In schools you'll always have coasters but you can't force people to grow" (Female teacher)

"Four of us went to a workshop on the Pampered Child Syndrome... Parents' and kids' expectations are out of whack... Teachers shouldn't change because parent pressure them to give their kids high marks." (Male teacher)

"Teaching is such a solitary pursuit... an individual process. I would love to team-teach. You never learn about your own teaching style." (Male teacher)

"We're moving in the right direction... There are more opportunities for PD... The amount of quality PD is poor in comparison with my last school board. We are 10 years behind in this board... Each teacher should have a bank account per year that they can access for PD... We could have cheap PD, use insider expertise, carousel format..." (Male teacher)

"The video had a temporary impact.... Inspiration...it was not a resource I needed at this time in my life/career. Sometimes we have too many resources. Give us more time to examine the resources that we have."(Female teacher)

"Teachers are more likely to get together in schools where they teach 5/8. Here people are burned out. PD is at the bottom of my list of priorities. It's a blimp on my radar screen. The school is trying to do more PD but there is always union issues going on in the background."(Female teacher)

"On paper we're going through the motion. Oh yes, PD it's right here. Check. I took responsibility for my own PD and went to a session in my subject area being offered out of town. The PD was paid for with 1/3, 1/3, 1/3 and was approved by the principal and the board. It was excellent. It increased my knowledge, skills, and brought me up to date in my field."(Male teacher)

"Any connection with the high school teachers just to talk about kids and their transition to grade 9 would be helpful. We're not doing that. It's often a time issue. Everybody is running." (Female teacher)

“I liked the fact that it was not structured. The online courses give us an opportunity of doing PD on our own at some point in the future.”(Female teacher)

“I went online to explore the courses. They looked very useful. We meet with the department head and there was a sharing of resources (a package of materials). I got organized and got a better handle on things.”(Female teacher)

“We went to the board for a workshop [and had] an excellent presenter. What a good use of time. We discussed some common problems and some possible solutions to these problems.” (Female teacher)

“We should be treated like professionals. PD should not be institutionalized; it’s not relevant for many if it is. People don’t share because they are afraid of criticism. You can’t administer a test unless you do it yourself. Some people just take and use it as their own.” (Female teacher)

“I didn’t see the purpose of the video. I didn’t know where it fitted in. I had completed all of my work/marks. In the afternoon, I used the time to look at on-line courses. The computers are very slow.”(Male teacher)

“I’m not really concerned about it [professional development]. At the time there were more pressing matters.” (Male teacher)

“Once the debate heated up in staff meetings on assessment and evaluation, administrators dropped the subject” (Male teacher).

The staff nevertheless carried on the debate.

One teacher posted her response to the controversy surrounding assessment and evaluation on the school conference site. It read as follows:

...How many other things are there that we do not like in our profession, but we simply do them because they are part of our responsibility as teachers. The question here is— *Are we doing what we are supposed to do?* Have we tried to follow the ministry guidelines before complaining? The intention of the ministry is to offer our students a better evaluation, one that will consider a constant and consistent effort toward success. Averages are unfair. How can a computer possibly perform one of the most essential tasks in our profession? ...In terms of knowing the students as individuals, to appreciate and respect their needs, to really understand what is essential for their success, I have my doubts it can be done by a box filled with a microchip (field notes, March 2, 2005).

Another mid-career teacher offered some insight into the assessment and evaluation controversy when the teacher stated, “To me it seems clear that the intent was to try to get

us to look at the circumstances but the legislation has never been articulated in a way that teachers could read it and interpret it.” These discussions helped teachers articulate why they choose to follow or not follow government policy on this issue.

My reflections:

What people think about their PD depends to some extent on where they are coming from in their experiences and the direction in which they are headed in their career path. In other words, their history of professional development together with their aspirations seems to play a critical role in the way they interpret their experiences or look for new experiences. It also depends on what is happening in their personal lives now.

The school is three years old; some staff members are leaving for various reasons: promotions, maternity/paternity leaves, or to be an itinerant teacher with the board. A large portion of the staff that is being added to the regular staff is young. The staff in commenting on Friday's PD did see a need for a variety of forms of PD and seem to want more of a voice in the way that PD is delivered. While many alluded to sharing and collaboration, a number of teachers inferred that it comes down to trusting that everyone will do his/her share.

Appendix L: School Board Professional Development Opportunities

Field notes from November 2004 to May 2005

Opportunities/ information on professional development posted on the St Christopher High School's conference site

- Department Heads and Curriculum Leader Meeting, August 31 at 10 a.m.
- Request for teacher mentors for the academic year particularly in the areas of arts, computer science, sciences, and history in both J/I and I/S/panels.
- An opening for a math/science curriculum leader in the school.
- Secondary school conference developed by members of each school board. Sessions include professional learning communities, differentiated instruction, students for success, and creating and sustaining viable school literacy teams.
- Report card in-service part 2 for high school teachers, October 21, 2004.
- Christian Community Day, October 22, 2004. Topic: The opportunities of a borderless world. Dr....
- Report card grades 7/8. Rookies team up with veteran to complete task. October 21, 2004.
- Workshops for French teachers on March 31 and April 1&2, 2005. Offer to present alone or with a colleague or attend. Ateliers OMLTA. 1/3, 1/3, 1/3 funding.
- 7/8 report cards: downloading at home instructions. October 27, 2005.
- Adult Faith series. Register online. The session begins at 9a.m. on Saturday.
- Notification of Principals' qualifications program, parts 1&2. The course will take place over six weekends. The winter session begins February 5 & 6 and ends Sunday, April 30.
- Help available with rubric making here at school. See bulletin board. October 20, 2004
- Training session for teachers interested in learning how to use Marksbook Manager program. After school, October 19, 2005.
- Marksbook 2004 on laptops. Instructions to create your own link.
- Ad from NECTAR on school conference. Opportunity for teachers to develop a secondary school mathematics unit grades 9-12 in a science space context.
- The national library and archives web sites for educational resources: The learning center: www.collectionscanada.ca/education; new library and ArtVenture: <http://www.collectionscanada.ca/education/art/> Nov. 12, 2004.
- Think Literacy document and other resource are available at English Language Arts Association website: www.elan.on.ca
- A video and teacher resource kit on bullying produced by the Ottawa 67s is available for grades 7/8 religion teachers and other interested people
- Tech improvements via satellite access with Bell Expressview soon available for classroom use. In-service for staff on or around November 15, 2004.
- A meeting for new or nearly new teachers who would like resources/ to get together to talk about preparing for parent-teacher interviews, after school Tuesday, November 30 in the conference room.
- ETFO credit course opportunity. Reading to learn: comprehension on Thursdays in January and February from 4:30 p.m. to 8:30 p.m. & Saturdays in January 8 a.m. to 3 p.m.
- Posting called for two itinerant teachers made possible through a "Learning to 18" Grant. January 17, 2005.

- Eastern Ontario Catholic Curriculum Cooperative presents on February 21-22, 2005 adult faith experience, first-come first-served basis, free of charge. Galilee House in Arnprior.
- Workshop on February 9, 2005 on media literacy/body image. Cost \$95 includes a full day workshop, reproducible handouts and CD-ROM.
- A keynote speaker from (OISE/UT) a one-day conference for teachers by teachers on today and tomorrow. Thursday, March 3 at 6 p.m. to Friday, March 4 at 3 p.m. \$1000 per team of four.
- MEI International Academy. Friday, December 3, 2004 teachers and students who are interested in credit courses overseas either during the summer months or for a full semester.
- Software writing opportunities are available from the NECTAR foundation. January 3, 2006
- Elementary and secondary basketball clinic is available on Saturday, January 8, 8:30 a.m. to 1 p.m. The clinic will be of use to beginner and intermediate level coaches. It is designed for anyone with less than 10 years of coaching experience.
- OECTA members the 1/3 conference funding for January and February 2005 has been spent. (December 14, 2004).
- Conference site for information on Legislation ending teacher-testing, Wednesday, December 22, 2004.
- Literary Book Club. You will have a chance to read a book by a noted literary expert. Participants will receive the book in advance and will be able to keep the book to use ideas in their schools. The first book will be *Do I Really Have to Teach Reading?* This is a great opportunity to build professional libraries, exchange ideas, and socialize with colleagues.
- OECTA: Only conferences beginning in May will be reviewed for conference funding. (January 14, 2005).
- Planet Parent is having a special show on children with Asperger's Syndrome. It is on two days: Sunday, January 9, 10 p.m.; Sunday, January 16, 4 p.m. the keynote speaker is Dr... of the Offard Center for Child Studies, McMaster University, geneticist Dr.... and noted social worker Dr....
- Social bullying. Visit www.nfb.ca/itsagirlsworld for more information. The site contains user guides, resources, links and other information.
- All staff in grades 7 to 12 is invited to hear Ron Moorish talk about positive school and classroom discipline on Tuesday, February 1, 2005 from 4:30 p.m. to 6 p.m.
- The Eastern Region of Ontario ASCD presents a PD opportunity Thursday evening February 3 with.... from OISE. His topic is "Capturing the humour in teaching". You can choose to attend one of 10 breakout sessions to learn about innovative teaching ideas to "reignite that spark".
- In response to some of your questions about the *Accelerated Reader Program* and the *Star Reading Program*, look at these web sites:
www.renlearn.com/ar/overview/default.htm and
www.renlearn.com/starreading/howitworks.htm
- *Pathways for Success* offers to sponsor two teachers per school to attend "Reaching Higher, Reaching a Wider Conference." It will be held at the Ambassador Hotel in Kingston on March 31 & April 1. Preference is for members of school literacy teams. 1/3 funding applies.
- A Parent Support Group- NBC a special on autism is viewing this week on February 25, 4:45 p.m. An economics laureate with Asperger Syndrome will be interviewed.

- “*A Focus on You*’ Conference. Thursday, February 24, 9 a.m. to 3:15 p.m. Accommodate approximately 75 people at little cost to participants.
- OECTA is inviting all beginning teachers, the first five years in the profession to a meeting and social Tuesday, January 18 at 4:30 p.m. Topics: relationships with parents and colleagues; employee benefits.
- Canada's second national conference on bullying will take place from March 21-23. Visit www.cayfo.ca for more information.
- Presenters needed for the OECTA professional network. Application deadline is April 4, 2005.
- OECTA AGM report.
- Ottawa Learning Conference on Saturday, April 23, 2005. Join us for our second annual Teaching, Parenting and Learning with the Brain in Mind Conference. Keynote presentation delivered by Dr....
- Position vacancies for Night School credit teachers. Session 1 runs from September to December; Session 2, February to May, 2 nights per week, 3.5 hours per night. Applications due by June 24, 2005.
- Media Literacy is a three-day summer institute for teachers. July 11-13, 9 a.m. to 3 p.m. London Public Library. Cost is \$ 40.00 for 15 hours of instruction.

**Appendix M: St. Christopher High School Annual Teacher Survey Results
Areas Where We as a Staff Have Improved 2004-2005**

Faith

Celebrate/recognize religious holidays
Tsunami fundraising
Christmas baskets
Graduation mass
Friday in-class prayers
Daily prayer
Liturgies including Mass

Community

Celebrating staff members (farewells, showers, etc...)
TGIF
Jag Jog (Parents and School Council)
Masses
Clean-up day
Cheerleaders at feeder schools & TD bank
Support of Candlelighters' Foundation

Partnership

Team teaching and all forms of cooperation
Sharing materials
Students involved in local parish activities
Donations from businesses

Excellence

Academic and athletic awards ceremonies
Celebration of teams on P.A.
Graduation ceremony
Honour role
Personal bests

Persons

Anti-bullying presentation
ASAID
Hopewell Campaign
Peer pals/peer helpers
Expose
Staff support of one another with resources, help, advice and emotional support

Justice

Behaviour guidelines in agenda and our Dominican Experience

Stewardship

7/8 students helping to keep cafeteria clean
 Locker clean-ups
 Making good use of supply teachers
 Looking after computer resources and other equipment
 Community clean-up

What We Should Focus On and Improve...***Faith***

More masses
 Respect for one another and property
 Incorporating faith activity into various subject areas (i.e. Math, Science, Language Arts, etc.)
 Lenten Lifestyle Awareness calendar as our Lenten Project or some other Lenten Project

Community

Inclusion
 Communicate good deeds to the local paper
 Involving parent community in fundraising activities, planning fun days, etc...
 Business sponsorship for sports or school activities
 More community events - perhaps Terry Fox could become a major event, etc...

Partnership

Mentoring of new teachers
 Form more partnerships with charitable organizations (Cancer society, CNIB, CHEO, Habitat for Humanity Raising the Roof, etc...)
 More interaction with parents to get them on board
 Pair with a poorer school in our board

Excellence

Celebrate non-sport, non-academic activities such as music, drama, chess club, etc...
 PD opportunities

Persons

Continue to show compassion for those going through difficult time and getting them the help needed to be "well" again – helping those in need
 Are people teaching what they would like to teach?

Justice

More support/ follow-up in office for behaviour issues
Presentations to the rest of school to show what students did in the Dominican Republic and how the donations impacted what they were able to accomplish.

Stewardship

Students taking pride in their school and keeping hallways, classrooms and lockers clean and in good condition

Appendix N: Validation Report Form

Validation Report for a study conducted by Marjorie Hinds
On professional development and its impact on teacher practice at St. Christopher High School
From November 16- May 15, 2005 © Marjorie J. Hinds

Please answer each question directly on the sheet and return it to Marjorie Hinds, Researcher. Your responses are important for building knowledge in and on the teaching profession. Circle/comment where appropriate. Thank you for your cooperation.

1. Did the researcher make every effort to guard the confidentiality of your interview responses?

Yes No Comment:

2. Did having the interview taped affect your responses?

Yes No Comment:

3. Did you read your transcript which you received back from the researcher?

Yes No Comment:

4. Were your transcripts which you received back from the researcher accurate technically and in content?

Yes No Comment:

5. Were you given an opportunity to make corrections, modifications, additions to your transcript?

Yes No Comment:

6. Did the researcher take adequate time with you in a follow-up interview to ensure that she understood your stance on professional development?

Yes No Comment:

7. Why did you volunteer for the interview on professional development?

Comment:

8. Did you learn anything new about your own thinking or gain any insights as a result of the interview process?

Comment:

9. Did the questions asked in the interview cover the important issues in professional development for you and your school?

Yes No Comment:

10. Are the research findings an accurate picture of your school at the time of the interviews (November 16 to May 15)?

Yes No Comment:

11. What other areas would you like to see researched in your school?

Comment:

12. What is your next step for professional development?

Comment:

Code name:

Code school: St. Christopher High School

Date

Please circle on the scale how you perceive your work: **Your response is confidential.**

Job	Good Job	Profession	Vocation
1 2	3 4 5	6 7 8	9 10

Dear Teachers and Administrators:

To assist you in making a choice, you might want to consider Sergiovanni and Starratt's (2002) or Brandeis' explanation of the terms job, profession or vocation or use your own judgment of what the terms mean.

Job refers to workers who perform tasks, skills, and responsibilities in return for a salary. Workers are not entitled to be entirely autonomous. A job description focuses on the job itself and not on any specific individual who might fill the job (p.206).

Profession refers to professionals possessing expertise. This expertise entitles those possessing the expertise to be autonomous. In addition to being competent, there is a commitment to practice in an exemplary way; commitment toward valued social ends; commitment not only to one's own practice but also to the practice itself; and, commitment to an ethic of caring (p.59).

Vocation refers to people who view their work as a calling, as if responding to a summons, to undertake a certain kind of work (p.206)

Source for the above explanations of a job, profession and vocation.
(Sergiovanni & Starratt (2002). A Redefinition –Supervision. Boston College, McGraw-Hill.

Louis Brandeis defines a profession as “an occupation for which the necessary preliminary training is intellectual in character, involving knowledge and to some extent learning, as distinguished from mere skill; which is pursued largely for others, and not merely for oneself; and in which the financial return is not the accepted measure of success.

Source: Martin Marty (2001). Sept-Oct. Healthcare Professions, *From Job to Vocation*. Online:
http://www.parkridgecenter.org/Page_1556.html

Appendix O: Designing Adult Learning Activities

Speck (1996) notes that the following important points of adult learning should be considered when designing professional development activities for educators:

- Adults will commit to learning when the goals and objectives are considered realistic and important to them. Application in the 'real world' is important and relevant to the adult learners' personal and professional needs.
- Adults want to be the origin of their own learning and will resist learning activities they believe are an attack on their competence. Thus, professional development needs to give participants some control over the what, who, how, why, when, and where of their learning.
- Adult learners need to see that the professional development learning and their day-to-day activities are related and relevant.
- Adult learners need direct, concrete experiences in which they apply the learning in real work.
- Adult learning has ego involved. Professional development must be structured to provide support from peers and to reduce the fear of judgment during learning.
- Adults need to receive feedback on how they are doing and the results of their efforts. Opportunities must be built into professional development activities that allow the learner to practice the learning and receive structured, helpful feedback.
- Adults need to participate in small-group activities during the learning to move them beyond understanding to application, analysis, synthesis, and evaluation. Small-group activities provide an opportunity to share, reflect, and generalize their learning experiences.
- Adult learners come to learning with a wide range of previous experiences, knowledge, self-direction, interests, and competencies. This diversity must be accommodated in the professional development planning.
- Transfer of learning for adults is not automatic and must be facilitated. Coaching and other kinds of follow-up support are needed to help adult learners transfer learning into daily practice so that it is sustained (pp.36-37).

From "Best practice in professional development for sustained educational change" by M. Speck. *ERS Spectrum*. pp.33-41.

Appendix P: Transfer of Training Skills

In "Transfer of Training", John Newstrom writes that 40% of skills learned in training are transferred immediately, 25% remain after six months, and only 15% remain a year later.

Roughly 20% of the critical skills needed to do a job are provided by training programs; 80% are learned on the job. Effective assimilation or transfer of training is, therefore, highly important.

Transfer of training can be increased through the following:

- using realistic examples of how the skill might be used
- giving learners meaningful contexts for the application of concepts rather than presenting theory without a useful association
- using rich analogies to heighten retention of information
- presenting skills in a conceptual context before asking learners to use them
- including practice of skills in the design of the learning event
- presenting new concepts in several different ways; transfer of training is more likely to occur when concepts appear in several different training contexts
- using clear and effective visual aids
- using of pre-training assignments
- keeping concepts and skills as close as possible to the work generally done by participants in their everyday jobs
- building in post-training follow-up with participants
- encouraging the organization(s) to develop supportive environments for the continued learning in the workplace after training has taken place.

From "How to Ensure Transfer of Training" by P. Caravaglia. Training and Development. October 1993, pp. 63-68.

Appendix Q: Concerns–Based Adoption Model

Stage of Concern	Expression of Concern
6. Refocusing	I have some ideas about something that would work even better.
5. Collaboration	How can I relate what I am doing to what others are doing?
4. Consequence	How is my use affecting learners? How can I refine it to have more impact?
3. Management	I seem to be spending all my time getting materials ready.
2. Personal	How will using it affect me?
1. Informational	I would like to know more about it.
0. Awareness	I am not concerned about it.

Levels of Use of the Innovation: Typical Behaviors

Levels of Use	Behavioral Indicators of Level
VI. Renewal	The user is seeking more effective alternatives to the established use of the innovation.
V. Integration	The user is making deliberate efforts to coordinate with others in using the innovation.
IVB. Refinement	The user is making changes to increase outcomes.
IVA. Routine	The user is making few or no changes and has an established pattern of use.
III. Mechanical	The user is making changes to better organize use of the innovation.
II. Preparation	The user has definite plans to begin using the innovation.
0I. Orientation	The user is taking the initiative to learn more about the innovation.
0. Non-Use	The user has no interest, is taking no action.

From *Taking Charge of Change* by Shirley M. Hord, William L. Rutherford, Leslie Huling-Austin, and Gene E. Hall, 1987. Published by the Association for Supervision and Curriculum Development, 2005.

Appendix R. Ontario College of Teachers (OCT) Standards of Practice for the Teaching Profession and Related Competencies

Standards of Practice for the Teaching Profession

Commitment to Students and Student Learning

Members of the Ontario College of Teachers demonstrate care for and commitment to students. They are dedicated in their efforts to teach and to support student learning. They treat students equitably and with respect. They encourage students to grow as individuals and as contributing members of society. Members of the Ontario College of Teachers assist students to become lifelong learners.

Professional Knowledge

Professional knowledge is the foundation of teaching practice. Members of the Ontario College of Teachers know the curriculum, the subject matter, the student, and teaching practice. They know education-related legislation, methods of communication, and ways to teach in a changing world.

Teaching Practice

Members of the Ontario College of Teachers apply professional knowledge and understanding of the student, curriculum, teaching, and the changing context of the learning environment to promote student learning. They conduct ongoing assessment and evaluation of student progress. They modify and refine teaching practice through continuous reflection.

Leadership and Community

Members of the Ontario College of Teachers are educational leaders who create and sustain learning communities in their classrooms, in their schools, and in their profession. They collaborate with their colleagues and other professionals, with parents, and with other members of the community to enhance school programs and student learning.

Ongoing Professional Learning

Members of the Ontario College of Teachers are learners who acknowledge the interdependence of teacher learning and student learning. They engage in a continuum of professional growth to improve their practice.

Competency Statements

Commitment to Pupils and Pupil Learning

Teachers:

- demonstrate commitment to the well-being and development of all pupils,
- are dedicated in their efforts to teach and support pupil learning and achievement,
- treat all pupils equitably and with respect,
- provide an environment for learning that encourages pupils to be problem solvers, decision-makers, lifelong learners, and contributing members of a changing society.

Professional Knowledge

Teachers:

- know their subject matter, the Ontario curriculum, and education-related legislation,
- know a variety of effective teaching and assessment practices,
- know a variety of effective classroom management strategies,
- know how pupils learn and factors that influence pupil learning and achievement.

Teaching Practice

Teachers:

- use their professional knowledge and understanding of pupils, curriculum, legislation, teaching practices, and classroom management strategies to promote the learning and achievement of their pupils,
- communicate effectively with pupils, parents, and colleagues,
- conduct ongoing assessment of their pupils' progress, evaluate their achievement, and report results to pupils and parents regularly,
- adapt and refine their teaching practices through continuous learning and reflection, using a variety of sources and resources,
- use appropriate technology in their teaching practices and related professional responsibilities.

Leadership and Community

Teachers:

- collaborate with other teachers and school colleagues to create and sustain learning communities in their classrooms and in their schools,
- work with other professionals, parents, and members of the community to enhance pupil learning, pupil achievement, and school programs.

Ongoing Professional Learning

Teachers:

- engage in ongoing professional learning and apply it to improve their teaching practices.

From *Supporting Teaching Excellence: Teacher Performance Appraisal Manual* (2002). The *Standards of Practice for the Teaching Profession* were approved by the College Council in 1999. They are available on the Ontario College of Teachers' web site – <http://www.oct.ca/home.aspx>
A revised set of Standards of Practice for the Teaching Profession were approved on June 8, 2006.

TABLES

Table 1: Andragogical and Pedagogical Assumptions

Assumptions About...	Pedagogical	Andragogical
Concept of the learner	Dependent personality	Increasingly self-directed
Role of learner's experience	To be built on more than to be used as a resource	A rich resource for learning by self and others
Readiness to learn	Uniform by age-level and curriculum	Develops from life tasks and problems
Orientation to learning	Subject-centered	Task- or problem-centered
Reason to Learn	Teacher -directed	Meet a specific need
Motivation	By external rewards and punishment	By internal incentives (curiosity, self-esteem...)

From Applying principles of adult learning in conference presentations, by M. Knowles, 1992. *Adult Learning*, 4(1), p. 12.

Table 4: Sources of Data for the Study

Teachers	Taped Interviews 45-60 min	Follow-up Interviews 45-60min.	Observation # 1 at Staff/ Meetings	Observation # 2 PD Session/ School	No. of Informal Meetings in Person/ Online Conference Site
BE	Yes	Yes	Yes	Yes	3 in person
BO	Yes	Yes	No	Yes	2 in person
BR	Yes	Yes	Yes	No	4 on line
CS	Yes	Yes	No	No	2 in person, 1 online
CY	Yes	Yes	Yes	Yes	1 online
EA	Yes	Yes	Yes	Yes	1 in person
EE	Yes	Yes	Yes	Yes	2 in person, 2 online
ET	Yes	Yes	No	Yes	1 online, 1 in person
FM	Yes	Yes	Yes	Yes	1 in person
FH	Yes	Yes	No	Yes	1 in person
JK	Yes	Yes	Yes	Yes	2 online
JA	Yes	Yes	Yes	Yes	1 in person
JY	Yes	Yes	Yes	Yes	2 online
LB	Yes	Yes	No	No	3 in person
LR	Yes	Yes	No	Yes	2 in person, 1 online
OA	Yes	Yes	Yes	Yes	3 in person, 3 online
PN	Not taped	Yes	No	No	4 in person
RD	Yes	Yes	Yes	Yes	1 in person, 1 online
RN	Yes	Yes	Yes	Yes	2 in person, 2 online
SE	Yes	Yes	Yes	Yes	4 in person
Admin.					
EY	Yes	Yes	Yes	Yes	2 in person, 1 online
MY	Yes	Yes	Yes	Yes	3 in person, 2 on line
ZI	Yes	Yes	Yes	Yes	2 in person

In addition to the above sources, the researcher met informally with participants during the following functions: a) Epilepsy Breakfast in November, 2004; b) TGIF, November 2004; c) Christmas Social, December 10, 2005; d) Welcome Back Breakfast, January 19, 2005, sponsored by the school's Exposé committee; e) Seder Evening Meal, April 19, 2005, and f) the students and staff Fashion Show, May 19, 2005.

Table 5: Validation Forms Returned

Teachers	Returned Validation Form	Individual Transcript Accurate	Collective Transcript Accurate	Teachers' Perceptions for Further Research	Future Goals for PD
*BE (f)	Yes	Yes	Yes	Not sure	AQ courses
*RD (f)	Yes	Yes	Yes	Power point use in the classroom	Religion Part 1 & Guidance Part 1
*ET (m)	Yes	Yes	Yes	Employee satisfaction. Communication improvements between teachers and administrators	Courses /workshops on dealing with problem and handicapped students/Principal Papers
*FH (m)	Yes	Yes	Yes	Gap between grade 8 & 9 & initiatives to lessen the shock	Department head
*CY (m)	Yes	Yes	Yes	Classroom management, learning-teaching style relationship	Masters in ED/department head
*LR (m)	Yes	Yes	Yes	Collaborative PD in the school.	Program specific courses. Long term goal, department head
+EA (f)	Yes	Yes	Yes	None mentioned	Grow personally and academically in area of Counseling. Vice-principal long term goal
+BO (m)	Yes	Yes	Yes	None mentioned	Coaching certification programs
+FM (m)	No	Yes	Yes	Student self-directed learning	Technology partnerships/network
+BR (f)	Yes	Yes	Yes	Impact of libraries and teacher librarians on student achievement	Teacher- Librarian Part 11
+JK (f)	No	Yes	Unable to comment	Not sure	Not sure
+JY (m)	Yes	Not read	Yes	No. of hours put into the job. Levels of job satisfaction	Physics qualifications/perhaps Guidance
>JA (m)	Yes	Yes	Yes	Subject-directed professional development	Attend the next science teachers' conference
>LB (m)	No	Yes	Yes	None mentioned	None mentioned
>CS (f)	No	Yes	Yes	Team Building	Counseling/Guidance
>OA (f)	No	Yes	Yes	Relationship between teacher qualification and teacher assignment	Computers AQ or Principal Papers
>PN (f)	No	Yes	No	No	Professional reading
>EE (f)	Yes	Yes	Yes	Barriers to ongoing development-overtime	Implement history/geography project & identify key strategies in pass rate for grade 9. Principal papers
>RN (m)	No	Yes	Yes	PD for development of extracurricular activities that are going on in the school	Special Ed Qualifications & Principal Papers
>SE (f)	Yes	Yes	Yes	None	Learn new role as Department Head
Admin.				Administrators' Perspectives	
EY (f)	No (away)	Yes	Yes	Criteria for teacher excellence	Teaching at university part-time
MY(m)	Yes	Yes	Yes	The effect data can drive school performance to improve effectiveness	Ph.D in Administration
ZI (m)	Yes	Yes	Yes	None mentioned	Principal

Returned Teacher Validation Forms =65%

Accurate Individual Transcript =95%

Accurate Report of Collective Findings =90%

* = beginning teachers, + mid-career teachers, and > =experienced teach

Table 6: Ineffective PD for Teachers and Its Effects on Practices

Teachers	Type of PD	Type of Impact from teachers' personal comments
*BE(f)	Staff meetings with a professional development component	Staff meetings cause frustration for Grade 7 & 8 teachers. Meetings do not address our needs.
*RD(f)	Staff meetings	Staff meetings do not provide a lot of PD. Administrators because of the union have to keep it to 1 hour that includes everything! It would be nice if we were allowed to talk and share our concerns.
*ET(m)	Mentoring	Mentoring needs to be ongoing not just when somebody feels like getting together with you. You can't build anything before you know what people need. We don't have time to dialogue as a group, as a team.
*FH(m)	Christian Community Day	It counts as a PD Day but I don't really believe it has anything to do with student learning. It doesn't give me any more ideas or skills.
*CY(m)	Departments heads meetings	Some department heads do not provide enough direction for new teachers and others try to spoon feed you. It is frustrating trying to locate and access resources.
*LR(m)	Board seminar	Too much information is crammed into one afternoon session. Teachers need time to share more. We shouldn't just be stockpiling this information in one person's head.

* = beginning teachers, + = mid-career teachers, and > = experienced teachers

Table 6 continued: Examples of Ineffective PD for Teachers and Its Effects on Practices

Teachers	Type of PD	Type of Impact from teachers' personal comments
+BR(f)	No PD in area	Feelings of isolation in the school because I do not belong to any department.
+JK(f)	Staff meetings	Exhausted after all day in the classroom, I just clue them out-I mark or fiddle or do something. I am not listening to it.
+EA(f)	IEPs in Sept/Oct	Developing Individual Educational Programs to send to the board so early in the school year takes away from the kids when they are transitioning from elementary school. That is when they need our support. There is an increase in the workload in this department- too many papers.
+JY(m)	Assessment & Evaluation	I didn't see much change in myself or others. I could spend the rest of my life and not take a course!
+FM(m)	Using data from EQAO	What works for one person will not necessarily work for another. We are all individuals. Do we need to be able to quantify everything in education? One or two sessions on using data does not contribute to anyone's knowledge. The school, the board and the ministry and the university need to come to some kind of consensus as to what should count and why.
+BO(m)	Software programs provided by the board	Short clips of training after school on how to use software programs is fine but you need time to try those things out and you need mentoring/ coaching. Sometimes the expectations to learn and apply skills and learning in such a short period of time are unrealistic.

+ = mid- career teachers; (f) and (m) = gender

Table 6 continued: Ineffective PD for Teachers and Its Effects on Practices

Teachers	Type of PD	Type of Impact from teachers' personal comments
>EE(f)	Board Workshops	Workshops need a practical component to them that can be applied in the classroom. If they do not have something that teachers can use with the kids they are not useful.
>OA(f)	Dept. heads' meetings ICT training	Department heads do not have expertise in all of the areas they are supervising so meetings become information sessions. ICT training ten or 15 minutes once a month is not conducive to learning.
>PN(f)	Staff meetings and Department head meetings	I want professional development and not socialization or entertainment. We have no voice, no way of giving our input especially concerning resources and Dept. Head budgets.
>SE(f)	Board approved Conference	Even though the school was going to pay 1/3 and the board was going to pay 1/3, the cost to me personally was going to be \$600. I withdrew.
>CS(f)	Formal professional development at the board	The past ten years the PD at the board has been given to this massive audience. Teachers are not able to voice concerns and there is no follow-up.
>LB(m)	Assessment and Evaluation	It was frightening to hear the different interpretations on assessment and evaluation policy. With no clear direction, I stick to what is tried.
>JA(m)	Use the computer for the Marks Book program and Assessment and Evaluation	Things are too rushed. The one using Marks Book was kind of confusing... I haven't attended a lot of those. Administration has a limited time available to talk to us about assessment.
>RN(m)	Staff meetings and department head meetings. Assessment and Evaluation	Time constraints and lack of resources are part of the problem. There are real problems in coming to terms with the meaning and purpose of the new policy.

> = experienced teachers; (f) and (m) = gender of teachers

Table 7: Effective PD for Teachers and Its Effects on Practices

Teachers	Type of PD	Type of Impact from teachers' personal comments
* BE (f)	Designed school web page for the school. Held the position of curriculum leader.	Acquired new skills. Created a communication tool to report positive occurrences in the school community. Learned to order materials, coordinate resources, assist other teachers' curriculum needs, and to prioritize objectives.
* RD (f)	Attended VP led meetings on parent conferences and report cards.	Better prepared to communicate with parents. More confident in making judgments concerning student assessment and evaluation.
* ET (m)	Teacher Performance Appraisal by administrators. Observations of other teachers.	Performance appraisal put resources at my disposal to attend conference on classroom management. I observed small improvements in my approach and student responses. Observations of other teachers enhanced my approaches to discipline in my own classrooms.
* FH (m)	Provided computer in-service at staff meetings.	Raised the skill level for computer use by staff. Helping other staff members acquire new skills helped me fit in more easily into the school's culture; staff relied on me to help them and in return they shared materials with me. Developed leadership skills.
* CY (m)	Informal mentoring by colleagues.	Demonstrated that different subject areas and grade levels have different methods and practices. Consulting with colleagues had a cascading effect; it assisted in establishing routines more quickly, better relationships with the students and better learning environments.
* LR (m)	Conference on building student relationships. University course.	Shared my knowledge at staff meeting. Generated staff discussion. Colleagues were more willing to address the problem and exchange strategies that worked for different groups of students and different subject areas. The university course provided a more in-depth understanding of ministry requirements for covering the curriculum.

*= beginning teachers; (f) and (m) = gender of participants

Table 7 continued: Effective PD for Teachers and Its Effects on Practices

Teachers	Type of PD	Type of Impact from teachers' personal comments
+ BR (f)	Workshop training on literacy. Formation of school literacy team and implementation of program.	Brought about a common focus and improved motivation for learning. Many innovations initiated at the school: book clubs for students, senior students mentored junior students, teachers as authors, data shared on improvements in literacy, and demonstration of collaborative effort.
+ JK (f)	Self-taught software packages. Integrating literacy across the curriculum.	Reciprocal teaching/learning with students. Everyone learns and adds to the classroom's data bank. Mathematics teachers developed ways of implementing communication questions into the mathematics curriculum.
+ EA (f)	School seminar on suicide. Sharing my learning with colleagues	Acquired and used new skills in dealing with students who have suicidal tendencies and other related problems. Adopted format used by guest lecturer (pre-test, lecture, post-test and question period) for presentations.
+ JY (m)	Conference on science. One-on-one discussions with another teacher on issues surrounding curriculum, assessment, and student compliance.	Inspired attempts to try new structures and approaches to science and integrate some approaches into the mathematics curriculum. Helped determine a process to achieve objectives set for student learning and improvement in social interactions in the classroom.
+ FM (m)	International conference on animation. Advanced AutoCAD course.	Acquired up-to-date knowledge. Re-designed a section of a course to cater to different student interests and abilities. Stimulated interest in pursuing more advanced courses and meeting with innovators in the field.
+ BO (m)	Additional qualifications in counseling. Conference on classroom management.	Increased competence by gaining skills and knowledge. Derived satisfaction from mentoring and sharing knowledge with other teachers following the course. Added skills to the school team to help students make transitions to university, college or work. Added to repertoire of strategies for interaction with students.

+ = mid-career teachers; (f) and (m) = gender

Table 7 continued: Effective PD for Teachers and Its Effects on Practices

Teachers	Type of PD	Type of Impact from teachers' personal comments
> EE (f)	ICT school board workshops. Personal follow-up of in-service.	Understood technology program's objectives. Greater competency in skill level. Adoption by team of two teachers to new approach to student learning. New approaches encouraged students to experiment and be creative.
> OA (f)	Power Point presentations and other software packages. Associate Teacher. Action Researcher Curriculum writer in Toronto.	Exhibited perseverance. Use multi-media approach daily to teach and encourage students to expand their approaches to learning. Stimulated critical reflection. Inquired into student learning using technology as a tool for discovery. Reinforced the importance of having staff dialogue concerning how students learn.
> PN (f)	Subject Association meetings.	Learned from experts. Fostered exchange of ideas and information among teachers. Tried new strategies that were discussed. Integrated into practice those strategies that worked.
> SE (f)	Developed new course for senior students. Acted as Union representative on staff. Conference on well-being.	Broadened partnerships within the business community. Achieved greater student interest and participation in learning. Improved ability to articulate teachers' concerns and issues. Supported social and affective needs. Provided for career development.
> CS (f)	Conference on team building in sports.	Compared and filtered new information based on personal experience. Strengthened relationships with students which improved their commitment to academics.
> LB (m)	Reflection on Math testing. Spoiled Child Syndrome Conference.	Revised tests. Collaborated with colleagues to build better tests. Successfully implemented two strategies from the conference into my daily practice.
> JA (m)	Conference on science.	Renewed commitment to develop creativity in students. Volunteered to head network of science teachers.
> RN (m)	Workshops with department heads at the board. Leadership training.	Provided common understanding of evaluation. Increased awareness of different types of evaluation. Provided insights into curriculum areas that need to be improved.

> = experienced teachers; (f) and (m) = gender of teachers

Table 8: Teacher Self-Evaluation and Upgrading of Qualifications

Teachers	Self score work as: job=1-2; good job= 3-5, profession=6-8 vocation =9-10	Added Position of Responsibility or Leadership Initiative for school	Ontario College Record Upgrade of Additional Basic Qualifications, 1999-2005
*BE(f)	10	Curriculum leader	Yes, Religious Ed, Part 1
*RD(f)	7	No	Yes, His/Eng. Inter./ Sr.BQ
*ET(m)	6	No	Yes, Lang. Seconde, Part 1
*FH(m)	8	Marks Notebook/Tech.	Yes, Hon. Specialist Sc.
*CY(m)	Vocation	No	Yes, Geo/His. Inter./ Sr. BQ
*LR(m)	8	Designed module in tech.	Yes, Spec. Design & Tech.
+ mid- career			
+BR(f)	9	Literacy Committee	Yes, Librarianship, Part 1
+JK(f)	8	No	Yes, Guidance, Part 1
+EA(f)	8	Literacy Committee	Yes, Guidance, Part 2
+JY(m)	Profession	No	Yes, Religious Ed, Part 1
+FM(m)	Profession	Department Head	Yes, Spec. Design & Tech
+BO(m)	8	Mentored beginning teacher	Yes, Co-op Ed, Part 1
> experienced			
>EE(f)	10	Literacy Committee	Yes, Religious Ed, Part 1
>OA(f)	8:	Action Research	Yes, Associate Teacher
>PN(f)	Profession	No	No
>SE(f)	9	Developed business course and mentored	No
>CS(f)	9	No	No
>LB(m)	Job/vocation	No	Yes, Design & Tech, Part 1
>JA(m)	Job/vocation	No	No
>RN(m)	Vocation	Department Head and mentored beginning teacher	Yes, Hon. Spec. History

* = beginning teachers, + =mid-career teachers, and > = teachers with experience

Teachers were asked to rate their commitment to their work in terms of a job done for money; a profession as a more permanent relationship, and belonging to a special group, and vocation as a life-long commitment with the thought of serving others. Although seven teachers did not return their validation sheets wherein the terms were defined, within interviews teachers expressed their feelings about their work.

Table 9: Teachers' Reported Focus and Perceptions of School's Focus

Teachers	Teachers' focus in November	Teachers' Perception of Schools' focus in November	Teachers' Focus in February	Teachers' Perception of Schools' Focus in February
*BE-(f)	Academics	Sports	Human Relations	Sports
*RD-(f)	Human Relations	Academics	Academics	Human Relations
*ET-(m)	Academics	Human Relations	Human Relations	Human Relations
*FH-(m)	Sports	Sports	Academics	Academics
*CY-(m)	Academics	Human Relations	Academics	Sports
*LR-(m)	Academics	Academics	Human Relations	Academics
+BR-(f)	Academics	Academics	Academics	Sports
+JK-(f)	Academics	Human Relations	Human Relations	Academics
+EA-(f)	Human Relations	Human Relations	Human Relations	Academics
+JY-(m)	Academics	Academics	Academics	Sports
+FM-(m)	Academics	Human Relations	Human Relations	Academics
+BO-(m)	Human Relations	Sports	Sports	Academics
>EE-(f)	Human Relations	Human Relations	Academics	Academics
>OA-(f)	Academics	Sports	Human Relations	Sports
>PN-(f)	Academics	Sports	Academics	Sports
>SE-(f)	Human Relations	Academics	Human Relations	Human Relations
>CS-(f)	Human Relations	Sports	Sports	Academics
>LB-(m)	Sports	Sports	Sports	Academics
>JA-(m)	Academics	Sports	Academics	Human Relations
>RN-(m)	Academics	Human Relations	Human Relations	Academics

* = beginning teachers with 1-5 years teaching experience; + = mid-career teachers with 6-15 years of experience; > = experienced teachers with 16+ years of experience. See Figure 8 for representation and explanation. This figure illustrates that on two separate occasions, in November and in February teachers were asked to identify their own focus and the schools' focus in terms of academics, human relations or sports and well-being.

Table 10: Factors that Negatively Impacted on Practices by Gender

	Female	Male
Lack of needs identification	x	x
Poorly organized	x	
Not relevant to my grade level	x	
Not relevant to my subject areas		x
Lack of practical applications		x
Bad timing/exams etc.		x
External prescriptions		x
No follow-up sessions	x	x
Too large an audience	x	
Generic content	x	
Too high a cost	x	x

Table 10 depicts the areas that female and male teachers indicated as being factors that impacted negatively on their professional development. Both female and male teachers believed that lack of needs identification, lack of follow-up and cost were factors that acted as barriers to their professional development.

Table 11: Factors That Positively Impacted on Practices by Gender

	Female	Male
Tailored to needs	x	
Well organized	x	
Relevant to my grade level	x	
Relevant to my subject areas		x
Practical applications	x	x
Focus on content		x
Focus on pedagogy	x	
PD provider knowledge and experience	x	x
PD provider resources to share	x	x
Place and timing	x	
Other reasons		

Table 11 illustrates that both male and female teachers found that having professional development focus on practical application was useful. In addition, they indicated that professional development providers' knowledge and experience in education and having resources to share were added value components that contributed to their learning and practices.

Table 12: Impact of Professional Development Activities on Practices by Gender

	Female	Male
Your content knowledge		x
Your motivation to learn more	x	x
Your self-knowledge	x	
Your leadership skills		x
Your promotion prospects		x
Your students' learning outcomes	x	x
Your expectations for student learning	x	
Your contributions to research/ Action research, articles	x	
Your contributions to curriculum development/ modules		x
Your ability to apply your learning to new context		x
Your ability to address classroom management issues		x
Your integration of ICT into the curriculum	x	
Your assessment and evaluation practices	x	
Your collaboration with colleagues		x
Your use of student learning styles in your practice	x	
Your use of critical reflection on your teaching and learning	x	
Your use of inquiry based learning		x
Your use of a constructivist approach to learning	x	
Your use of data/ error analysis/		x
Your change to classroom environment	x	
Your motivation to learn about learning	x	

Table 12 suggests that both male and female teachers perceived of professional development as a vehicle to learn more

Table 13: Factors That Negatively Impacted on Practices by Grade Level

	7 & 8	9-12
Lack of needs identification	X	X
Poorly organized		X
Not relevant to my grade level	X	
Not relevant to my subject areas		X
Lack of practical applications	X	X
Bad timing/exams etc.	X	
External prescriptions		X
No follow-up sessions	X	
Too large an audience	X	
Generic content		X
Too high a cost	X	X

Table 13 indicates that across grade levels, both Grades 7 and 8 and Grades 9-12 teachers found lack of needs identification, lack of practical application, and cost factors to be barriers to their professional development.

Table 14: Factors That Positively Impacted on Teacher Practices by Grade Level

	7 & 8	9-12
Tailored to needs	x	x
Well organized		x
Relevant to my grade level	x	
Relevant to my subject areas		x
Practical applications		x
Focus on content		x
Focus on pedagogy	x	
PD provider knowledge and experience	x	x
PD provider resources to share	x	
Place and timing	x	
Other reasons		

Table 14 illustrates that having professional development tailored to teacher needs and having knowledgeable and experienced providers were factors that contributed to professional development having a positive impact on teachers' practices.

Table 15: Impact of Professional Development Activities on Practices by Grade Level

	7 & 8	9-12
Your content knowledge	x	
Your motivation to learn more		x
Your self-knowledge		x
Your leadership skills		x
Your promotion prospects		x
Your students' learning outcomes		x
Your expectations for student learning	x	x
Your contributions to research/ Action research, articles		x
Your contributions to curriculum development/ modules		x
Your ability to apply your learning to new context		x
Your ability to address classroom management issues		x
Your integration of ICT into the curriculum		x
Your assessment and evaluation practices	x	x
Your collaboration with colleagues	x	x
Your use of differentiated learning in your practice	x	x
Your use of critical reflection on your teaching and learning	x	x
Your use of inquiry based learning		x
Your use of a constructivist approach to learning	x	
Your use of data/ error analysis/		x
Your change to classroom environment		
Your motivation to learn about learning		

Table 15 indicates a coming together in thinking by grades 7 & 8 and Grades 9-12. It shows that both grade levels believed that their assessment and evaluation practices, collaboration with colleagues, differentiated learning for students, and critical reflection were influenced by professional development.

Table 16: Alignment of PD Activities with Impacts on Teacher Practices

Professional Development	Areas where PD had an Impact on Practices										
	Used New Subject Content Knowledge	Tried New Teaching Instructional Style	Implemented New Classroom Management Strategies	Building Community Capacity	Applied Special Education Principles to IEPs	Used Social & Emotional Strategies To Build Student Self-Esteem	Integrated ICT Into Curriculum	Implemented New Assessment and Evaluation Policy	Reflected on Practice and Learned From Experience	Collaborated with Colleagues	Contributed to innovative school programs, projects, or research
1. PD/Staff Meetings				X			X				
2. Literacy Program	X	X			X	X			X	X	
3. Eval. Policy formulation		X			X					X	
4. Annual Teacher Plan								X	X		
5. Teacher Perform. Appraisal						X					
6. Peer observation		X				X		X			
7. Informal groupings	X		X	X			X	X		X	
8. Develop module/course											X
9. Associate teacher		X							X		
0. EQAO data examination		X						X			
1. Committee/team work				X					X		X
2. Mentoring other teachers	X			X			X		X		
3. Joint lesson planning	X	X									
4. Professional dev. days				X							
5. Institute days				X					X		
6. Department meetings				X				X		X	
7. ICT in-service					X		X				
8. Curriculum leaders					X						
9. IT classrooms							X	X			
0. Create website/software				X							X
1. Leadership training	X		X	X						X	X
2. Students Feedback		X	X								
3. Colleagues (external)	X										
4. Personal Reflection									X		
5. School Board Workshops		X								X	
6. University Courses	X	X			X						X
7. Business Partnerships				X							
8. Professional Readings									X		
9. National Conferences	X	X		X						X	
0. Action Research		X					X		X	X	X

Table 16 indicates that, as a whole, the literacy program, informal groupings, and leadership training had the greatest influence on teachers' practices

Table 17: A Typology of Research Purposes

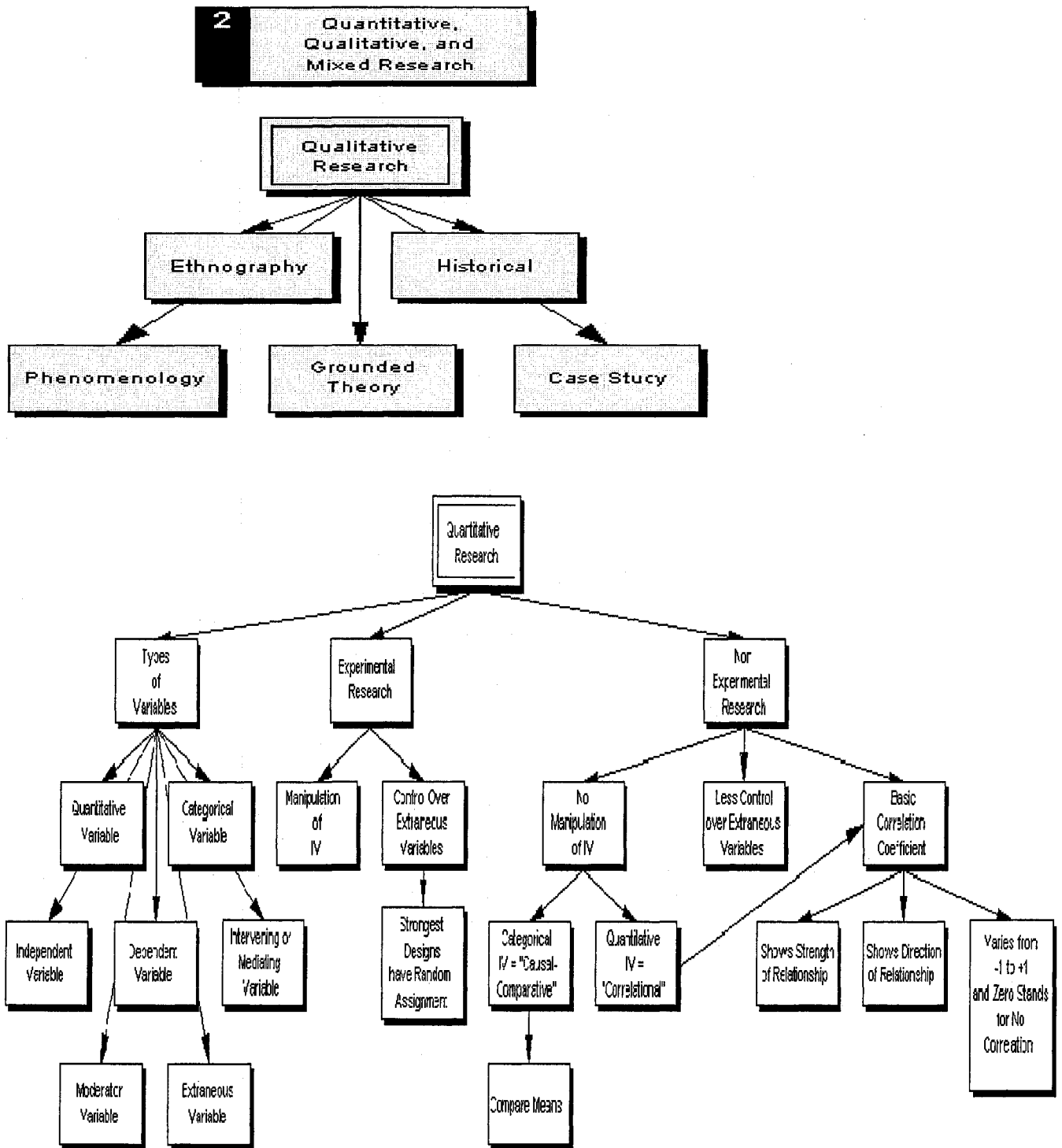
<i>Types of Research</i>	<i>Purpose</i>	<i>Focus of Research</i>	<i>Desired Results</i>	<i>Desired Level of Generalization</i>	<i>Key Assumptions</i>	<i>Publication Mode</i>	<i>Standard for Judging</i>
Basic research	Knowledge as an end in itself; discover truth	Questions deemed important by one's discipline or personal intellectual interest	Contribution to theory	Across time and space (ideal)	The world is patterned; those patterns are knowable and explain-able	Major refereed scholarly journals in one's discipline, scholarly books	Rigor of research, universality and verifiability of theory
Applied research	Understand the nature and sources of human and societal problems	Questions deemed important by society	Contributions to theories that can be used to formulate problem-solving programs and interventions	Within as general a time and space as possible, but clearly limited application context	Human and societal problems can be understood and solved with knowledge	Specialized academic journals, applied research journals within disciplines, interdisciplinary problem-focused journals	Rigor and theoretical insight into the problem
Summative evaluation	Determine effectiveness of human interventions and actions (programs, policies, personnel, products)	Goals of the intervention.	Judgments and generalization about effective types of interventions and the conditions under which those efforts are effective	All interventions with similar goals	What works one place under specified conditions should work elsewhere.	Evaluation reports for program funders and policymakers, specialized journals	Generalizability to future efforts and to other programs and policy issues
Formative evaluation	Improving an intervention: a program, policy, organization, or product	Strengths and weaknesses of the specific program, policy, product, or personnel being studied	Recommendations for improvements	Limited to specific setting studied	People can and will use information to improve what they're doing.	Oral briefings; conferences; internal report; limited circulation to similar programs, other evaluators	Usefulness to and actual use by intended users in the setting studied.
Action research	Solve problems in a program, organization, or community	Organization and community problems.	Immediate action; solving problems as quickly as possible	Here and now	People in a setting can solve problems by studying themselves	Interpersonal interactions among research participants; informal, unpublished	Feelings about the process among research participants, feasibility of the solution generated

From: M. Patton, 1990. *Qualitative Evaluation and Research Methodology* (2nd ed.).

Newberry Park, California: Sage Publications.

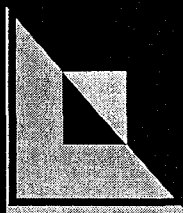
FIGURES

Figure 2: Alternative Approaches to Educational Research



From *Educational Research: Quantitative, Qualitative and Mixed Approaches* by B. Johnson and L. Christensen, 2004, Boston, MA: Pearson Education Inc. Chapter 2.

Figure 3: Poster for Recruiting Candidates for the Study



**A Case Study: Teacher Professional Development and Its Impact Upon
the Improvement of Practices in one Ontario Secondary School**

**Attention Teachers: You're Invited to be part of a
study on Teacher Professional Development**

**Contact Marjorie Hinds
or come
to the staff conference room**

November 15, 2004 to May 28, 2005 at your high school

**Come share your knowledge, experiences, and insights on the
meaning and impact of professional development on your
practices.**

This study seeks to understand, from your perspective, the meaning and impact of professional development upon the improvement of your practices. It also seeks to examine the context (culture, relationships, rules and resources) surrounding professional development at the secondary school level. As a participant in the study, you will be asked to take part in an individual audio-taped interview, review the transcript of your interview and provide feedback on the researcher's field notes. The time commitment will be 30-60 minutes on three occasions at a time convenient to your schedule. To protect your privacy and confidentiality, neither your name nor the name of the school will be used.

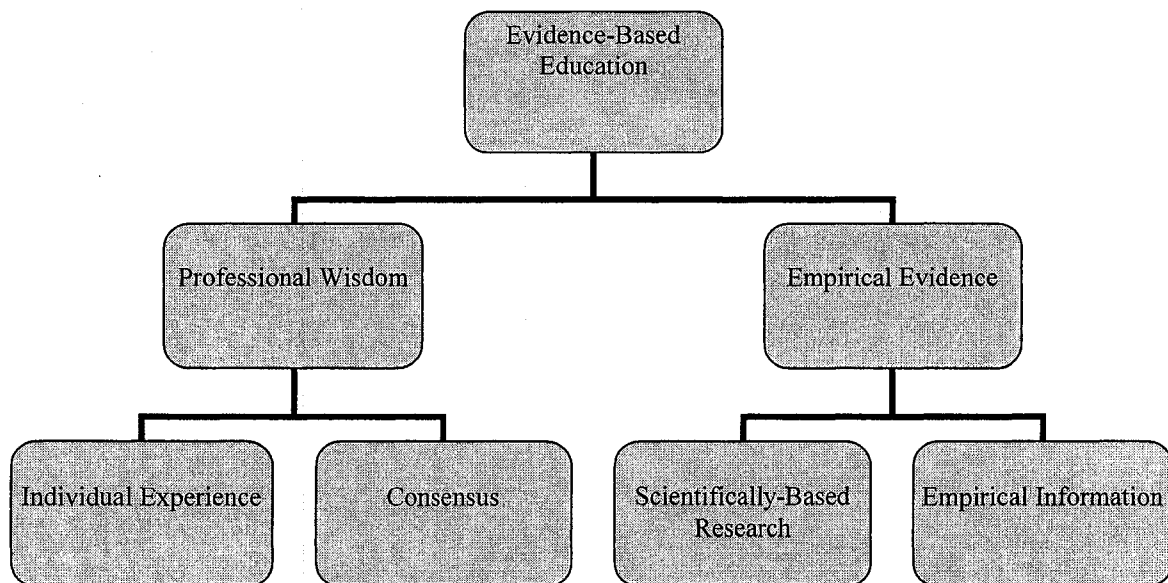
*Research Supervisor for this study: Dr. Marie-Josée Berger at
deduc@uottawa.ca or (613) 562-5800, Ext.4057*

*For ethical concerns, please contact: ethics@uottawa.ca or call
(613) 562-5841*

Figure 4: Evaluating Training Programs

level	measured	evaluation description and characteristics	examples of evaluation tools and methods	relevance and practicability
1	reaction	<ul style="list-style-type: none"> reaction evaluation is how the delegates felt about the training or learning experience 	<ul style="list-style-type: none"> e.g., 'happy sheets', feedback forms also verbal reaction, post-training surveys or questionnaires 	<ul style="list-style-type: none"> quick and very easy to obtain not expensive to gather or to analyze
2	learning	<ul style="list-style-type: none"> learning evaluation is the measurement of the increase in knowledge - before and after 	<ul style="list-style-type: none"> typically assessments or tests before and after the training interview or observation can also be used 	<ul style="list-style-type: none"> relatively simple to set up; clear-cut for quantifiable skills less easy for complex learning
3	behaviour	<ul style="list-style-type: none"> behaviour evaluation is the extent of applied learning back on the job 	<ul style="list-style-type: none"> observation and interview over time are required to assess change, relevance of change, and sustainability of change 	<ul style="list-style-type: none"> measurement of behaviour change typically requires cooperation and skill of line-managers
4	results	<ul style="list-style-type: none"> results evaluation is the effect on the business or environment by the trainee 	<ul style="list-style-type: none"> measures are already in place via normal management systems and reporting - the challenge is to relate to the trainee 	<ul style="list-style-type: none"> individually not difficult; unlike whole organization process must attribute clear accountabilities

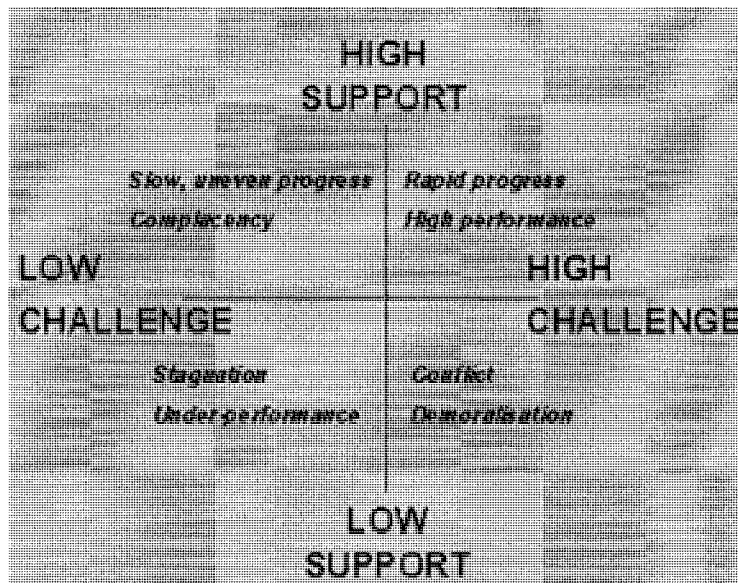
From Evaluating Training programs: The four Levels, by D. Kirkpatrick, 1998. San Francisco: Berrett-Koehler.

Figure 5: Components of Evidence-Based Education

The diagram depicts other forms of evaluation, in addition to scientifically-based research, that can measure the impact of professional development or intervention methods on student learning.

Evidence-based education by G. Whitehurst, Washington, DC., U.S. Department of Education. In Sasha Zucker Scientifically-Based Research: NCLB and Assessment. Retrieved January 26, 2005 from <http://harcourtassessment.com/NR/rdonlyres/50114084-E589-4783-8C23-AC6542CB4382/0/ScientificallyBasedResearch.pdf>.

Figure 6: The Framework for Continuous Improvement



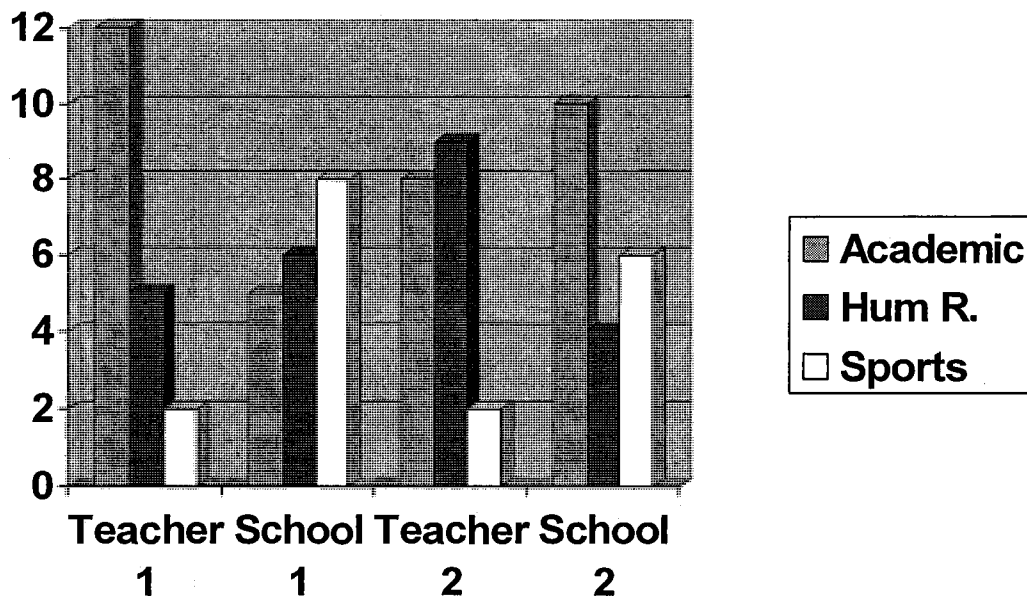
From "The Next Stage for Large Scale Reform in England: From Good to Great," by M. Barber, 2002, http://www.cybertext.net.au/tct2002/disc_papers/organization/barber.htm

Figure 7: Five Levels of Professional Development Evaluation

Evaluation Level	What Questions Are Addressed?	How Will Information Be Gathered?	What Is Measured or Assessed?	How Will Information Be Used?
1. Participants' Reactions	<ul style="list-style-type: none"> • Did they like it? • Was their time well spent? • Did the material make sense? • Will it be useful? • Was the leader knowledgeable and helpful? • Were the refreshments fresh and tasty? • Was the room the right temperature? • Were the chairs comfortable? 	<ul style="list-style-type: none"> • Questionnaires administered at the end of the session 	<ul style="list-style-type: none"> • Initial satisfaction with the experience 	<ul style="list-style-type: none"> • To improve program design and delivery
2. Participants' Learning	<ul style="list-style-type: none"> • Did participants acquire the intended knowledge and skills? 	<ul style="list-style-type: none"> • Paper-and-pencil instruments • Simulations • Demonstrations • Participant reflections (oral and/or written) • Participant portfolios 	<ul style="list-style-type: none"> • New knowledge and skills of participants 	<ul style="list-style-type: none"> • To improve program content, format, and organization
3. Organization Support & Change	<ul style="list-style-type: none"> • What was the impact on the organization? • Did it affect organizational climate and procedures? • Was implementation advocated, facilitated, and supported? • Was the support public and overt? • Were problems addressed quickly and efficiently? • Were sufficient resources made available? • Were successes recognized and shared? 	<ul style="list-style-type: none"> • District and school records • Minutes from follow-up meetings • Questionnaires • Structured interviews with participants and district or school administrators • Participant portfolios 	<ul style="list-style-type: none"> • The organization's advocacy, support, accommodation, facilitation, and recognition 	<ul style="list-style-type: none"> • To document and improve organizational support • To inform future change efforts
4. Participants' Use of New Knowledge and Skills	<ul style="list-style-type: none"> • Did participants effectively apply the new knowledge and skills? 	<ul style="list-style-type: none"> • Questionnaires • Structured interviews with participants and their supervisors • Participant reflections (oral and/or written) • Participant portfolios • Direct observations • Video or audio tapes 	<ul style="list-style-type: none"> • Degree and quality of implementation 	<ul style="list-style-type: none"> • To document and improve the implementation of program content
5. Student Learning Outcomes	<ul style="list-style-type: none"> • What was the impact on students? • Did it affect student performance or achievement? • Did it influence students' physical or emotional well-being? • Are students more confident as learners? • Is student attendance improving? • Are dropouts decreasing? 	<ul style="list-style-type: none"> • Student records • School records • Questionnaires • Structured interviews with students, parents, teachers, and/or administrators • Participant portfolios 	<ul style="list-style-type: none"> • Student learning outcomes: <ul style="list-style-type: none"> – Cognitive (Performance & Achievement) – Affective (Attitudes & Dispositions) – Psychomotor (Skills & Behaviors) 	<ul style="list-style-type: none"> • To focus and improve all aspects of program design, implementation, and follow-up • To demonstrate the overall impact of professional development

From Evaluating Professional Development by T. Guskey, 2000, Thousand Oaks, CA, Corwin Press, Inc. pp.94-246.

Figure 8: Teachers' Perceptions of Their Focus and School's Focus



The term "school" refers to administrators' views. Teachers participating in this study at St. Christopher High School were asked to identify their preferences/ focus (academics, human relations, or sports) during their first interview in November. At that interview they were asked what they believed to be the main focus of the school. These questions as to their own personal focus and their perception of their school's focus were repeated in a later follow-up session in February.

Teacher 1 and School 1 represent teachers' perceptions of themselves and their schools' focus in November. Teacher 2 and School 2 represent teachers' focus and their perception of their schools' focus in February.

In November, 12 teachers believed their focus was academic; in February, 8 teachers believed their focus was academic. In November, 5 teachers believed the school's focus was academic; in February, 10 teachers believed the school's focus was academic.

In November, 5 teachers believed their focus was on human relations; in February, 9 teachers believed their focus was on human relations. In November, 6 teachers believed the school's focus was on human relations; and in February, 4 teachers believed that the school's focus was on human relations.

In November, 2 teachers believed that their focus was on sports; in February, 2 teachers believed their focus was on sports. In November, 8 teachers believed that the school's focus was on sports; in February, 6 teachers believed that the school's focus was on sports.

What this graph illustrates is that in the first semester more teachers said they focused on academics than human relations or sports. However February, the beginning of the second semester, teachers had almost balanced their focus on human relations and academics with a slightly higher percentage given to human relations. The graph also illustrates that teachers' perception of their school showed an increase in the focus on academics as they moved from November to February but a decrease in both human relations and sports. These changes in perception may in part be due to thoughts of such matters as end of the year exams, focus for university/college entrance, and grades needed for scholarships.