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A Systematic Examination of Portfolio Assessment to Promote Teacher Professional Growth

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ABSTRACT

The portfolio has been cited as a vehicle to promote ongoing reflective thought by the individual. The practice of self-analysis is deemed to provide the opportunity to assess one's own strengths and weaknesses through the examination of work samples as well as to get feedback on one's performance from others. The focus of this study is to closely examine portfolio assessment as an innovative strategy to promote professional growth and development among teachers.

Researching the literature on teaching portfolios, one finds relatively few articles describing the process currently used. Due to the fact this is an innovative strategy, the topic is not clearly defined, nor is there a body of empirical research on the subject. The empirical studies located tended to focus on the portfolio process, neglecting both the conditions and consequences. This research, although only a first try, will help to provide the needed inquiry into this promising strategy, thereby making a contribution to the scarcity of empirical research.

The present study is exploratory in nature and employs a qualitative orientation to data collection. Further, it is guided by a conceptual framework, highlighting the conditions, process and impacts of the portfolio process. A framework was utilized to provide some structure but allowing for emergent themes and unanticipated consequences. This is a single case study (school) in which data was collected from seven participants (teachers, administrators). This school had been experimenting with teaching portfolios for the past three years. The focus for the portfolios was to promote professional growth among the teaching staff.

The findings and limitations of the present study are discussed in addition to the challenges and possible directions for future research.

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CHAPTER 1: INTRODUCTION

Statement of the Problem

One major function of teacher performance appraisal is to enhance professional growth, thereby contributing to the total school environment and effective schooling. In contrast with traditional models of supervision and inspection for accountability and personnel decision making, performance appraisal for growth is improvement oriented and consistent with norms of professionalism where educators assume responsibility for their own growth. Recently, the use of portfolios for performance appraisal and professional growth has gained increased attention in the scholarly and professional literatures.

In general, the portfolio has been cited as a vehicle to promote ongoing reflective thought by the individual. The portfolio process itself appears to be consistent with contemporary collaborative models of growth-oriented performance appraisal in contrast with the traditional hierarchical expert-novice model still employed in many school districts. Unfortunately close inspection of the literature reveals gaps in available empirical research-based knowledge in this area. Most studies on the topic are opinion pieces that make claims for the benefits of engaging individuals in such a reflective process. Such studies do little to instill a sense of confidence in the claims being made. The present study, while only a first step, aims to enhance our knowledge of the portfolio process by providing critically needed empirical inquiry into this promising, yet relatively untested, strategy.

Overall, the focus of this study is to closely examine portfolio assessment as an innovative strategy to promote professional growth and development among teachers. It is postulated that the use of the process will enhance levels of professional growth and development. Further, it is anticipated that indicators of growth and development will occur at two levels, the individual and the organization. At the level of the individual one would find implications for teaching practice, learning and motivation, while at the organizational level, consequences of the portfolio process would be detected by enhanced levels of collaboration and professionalism. Overall, this research provides much needed inquiry into this promising strategy, thereby making a significant contribution to the current gap in empirical research.

Conceptual Framework

Figure 1 shows a framework adapted from that developed by Cousins (1995) for conceptualizing performance appraisal for professional growth and development. This framework was utilized to guide the present research by providing some structure to the study while remaining flexible enough to allow for unanticipated relationships among variables or even undesirable effects. Despite the fact that little empirical research exists on using portfolios for professional growth, knowledge about the broader domain of clinical supervision has advanced considerably. For this reason a pre ordinate, as opposed to a more interpretive, approach was adopted for the present research. After an extensive literature review, the researcher wanted to examine the more salient points emerging from previous opinion-based works.

The framework portrays in temporal sequence the major components of portfolio construction as a growth-oriented process. With regard to performance appraisal for

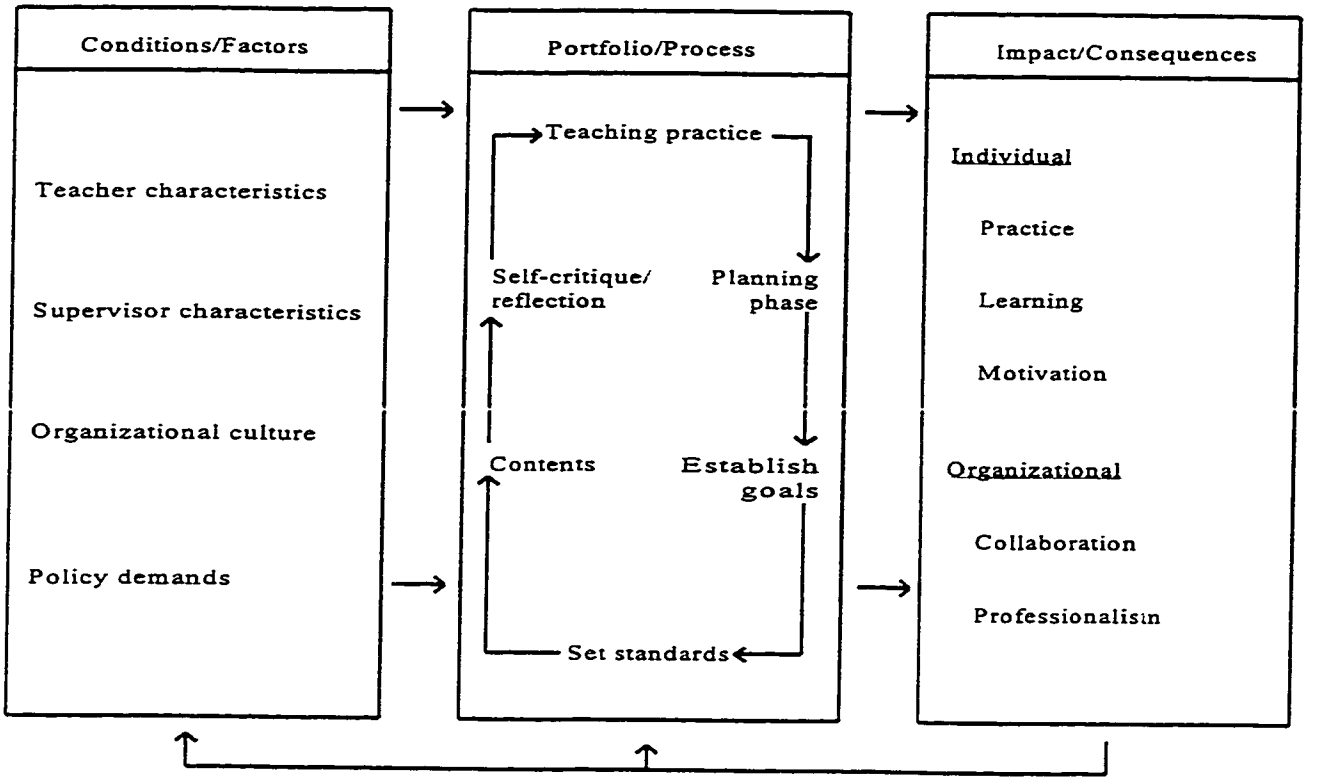


Figure 1 Conceptual Framework for the Portfolio Process in Performance Appraisal for Growth.

growth Cousins (1995, p.201) states, "the process is best conceived as nonlinear and cyclical," implying the ongoing nature of clinical supervision: it is not a one-shot evaluation, but rather a continuous process aimed toward long term improvement. The framework depicts the factors influencing the process, on the one hand, and consequences of it, on the other. These components are briefly described below.

Conditions/Factors Influencing the Process

Many organizational and individual factors and conditions will shape the portfolio process. These factors include attributes associated with the supervisor (e.g., leadership style, experience and commitment), the teacher (e.g., experience and motivation toward professional growth) and the organization (e.g., culture, support for the initiative and policy demands). While these antecedent variables are thought to interrelate with one another they are also suggested to be influenced by both the portfolio process and consequences of it.

Portfolio Process

The process of portfolio construction can most effectively be described as cyclical. Founded on practice-based knowledge and experience, the process generally begins with an intensive-planning phase that will ultimately determine the design, range and depth of the portfolio. It is in this planning stage that the intent of the portfolio will be discussed and agreed. Often the structure of the portfolio will take shape at this early stage.

The structure of the portfolio will consist of two dimensions. The first is conceptual in nature: criteria are identified specifying what aspects of teacher growth and development could be enhanced by the portfolio process. The second is the physical

structure of the portfolio itself. For example, will it be kept in a file folder, or a large notebook with many sections or a file drawer in a cabinet? Following such practical decisions is the arrangement of dated work samples and documentation of tasks undertaken. While the process dimensions tend to occur simultaneously, in some circumstances decisions about physical structure are preceded by the conceptualization process.

Next, is the goal establishment stage, where goals for professional growth are identified (may be done on a teacher-by-teacher basis). Since, for the most part, goals are expectations for improvement on specified criteria, teacher input at this point is thought to be critical to the success of the growth-oriented process. Once goals are established the contents to be added to the portfolio are discussed and agreed. After the portfolio construction is complete, teachers, often through interactions with administrators and perhaps peers, engage in self-reflection and critique.

Reflection is stimulated by the artifacts accumulated within the portfolio and thus the complex picture they provide. A review of such artifacts provides the opportunity for individuals to carefully consider their professional experiences. From such critical self-reflection, changes or modifications to one's teaching practice can arise.

Impact/Consequences

With respect to utilizing portfolios to promote teacher professional growth, impact will be evident in two regards. First, at the level of the individual there will be implications for a) teaching practice in terms of displayed behaviours b) learning through conceptual development and gaining a better understanding of the role of teacher, and c) motivation with respect to one's attitudes toward change and innovation. Second, at the

organizational level impact is possible in terms of fostering higher levels of a) collaboration as teachers work with their peers, but also with administration and b) professionalism as teachers assert the professional status of their occupation through ongoing self-directed growth and development.

Moreover, the portfolio innovation is viewed both as a process and a product. As Figure 1 illustrates, the process will ultimately result in a product, which is the physical portfolio. It is postulated that the product will feed back to influence the antecedent conditions or, more directly, the actual process thereby influencing future portfolio endeavours.

This conceptual framework, then, will serve to guide data collection, analysis and interpretation of the present study. It will provide a reasonable structure on which to examine variables, but will be flexible enough to allow for emergent themes. Given the paucity of prior research, in essence, this study will be exploratory in nature.

Definition of Terms

The general consensus that emerges from the literature with respect to a working definition of *portfolio* can best be adapted from Murphy's (1994) version as a deliberate, systematic, organized collection of evidence used by teachers to monitor growth of knowledge, skills and attitudes in specific areas or across the curriculum. Although Murphy's definition is grounded in the domain of student assessment, the concept is easily adapted to the role of the teacher for professional improvement.

Portfolio assessment can be described as both a process and a product (Ryan & Kuhs, 1993). A process is set in motion whereby materials that reflect progress toward intended goals are collected over time culminating into a product to be used for self-

reflection and self-analysis. It is important to distinguish between the 'portfolio construction process' and 'portfolio assessment process'. The former corresponds to the process of putting the portfolio together while the latter implies the general approach to stimulating teacher self-evaluation and professional growth.

Specifically, *professional growth* as described in this study is consistent with the use of the term in the clinical supervision, and broader planned change literature. The term implies the specification of specific goals, the development of one's understanding of current practice and, ultimately, the implementation of strategies to move from current to ideal practice. As suggested in the performance appraisal literature, growth is thought to be accelerated by involving teachers directly in the development of performance appraisal systems (Duke, 1990; Duke & Stiggins, 1990; Greene, 1992).

Professionalism as used in this study refers to teachers taking ownership for their own self development and developing a capacity for self-critique. *Performance appraisal* refers to a systematic process of gathering information on pre-specified goals thereby enabling one to make a determination if goals have been met.

The term *evaluate* as used in this paper is consistent with the notion of judging against a standard. Whereas, the term *assessment* is meant to provide a description in a rich way, thus there is an interpretation but a judgement is not undertaken.

Organization of the Thesis

The thesis is organized into chapters corresponding to the main components of the study. Each of the ensuing chapters is described in turn. **Chapter 2: Prior Literature** provides a comprehensive understanding of the scholarly and professional literatures in the area. The chapter proceeds with an exploration of the theoretical underpinnings from

which the portfolio process emerged. This is followed by a critical review of the existing literature on the topic. Chapter 2 concludes with the presentation of the specific research questions that guide the study. These questions arise as a consequence of the gaps in knowledge and understanding previously identified in the critique of literature.

Chapter 3: Context is intended to give the reader a deeper understanding of the school, it's culture, the teachers and administration involved in this study and to provide some comment on external circumstances that helped to shape the environment of the school while this study was being carried out.

Chapter 4: Methods provides a detailed description of how the present study was conducted. Initially, consolidation and justification of design decisions are specified. Next, the sample from which data for the study were collected is described. The instruments used for data collection, the procedures for gathering and processing these data and the procedures for analysis are then described.

Chapter 5: Results presents the findings of the study. The results are presented in an order that corresponds to the research questions posed in chapter 2. Data display matrices are used to convey the data in a coherent and reliable manner.

Chapter 6: Discussion highlights the main findings that emerge from this study in the context of its limitations. In this chapter, study contributions are summarized and implications for futher research in the area are provided.

CHAPTER 2: PRIOR LITERATURE

This chapter serves two main purposes, (1) to situate the portfolio process within the clinical supervision context and (2) to provide a critical examination of current knowledge in this area. The critique is divided into the sections that correspond to the conditions, process and consequence components depicted in the conceptual framework (see Figure 1).

Clinical Supervision

Within the domain of supervision there is a prominent conflict between the "neo-traditionalists" on the one hand, and the "neo-progressives" on the other, over the definition of clinical supervision. Historically, clinical supervision is connected to the issue of professional status of educators. In the early 1950s Morris Cogan, the founder of clinical supervision, wrestled with the criteria for what constitutes a fully recognized profession (Cogan, 1973). Current neo-progressive thinking is not much different from this original conception of clinical supervision.

The neo-progressive position points to the teacher as an equal partner, or collaborator, with the supervisor in determining the focus and extent of the supervisory process (Garman, Glickman, Hunter & Haggerson, 1987). According to Garman, a prominent supporter of the neo-progressive school of clinical supervision, personal empowerment is viewed as the essential ingredient in the professional mission of clinical supervision. Further, it is perceived that such personal empowerment can ultimately be achieved by assisting teachers to become more reflective about what they do (Garman et al., 1987).

The neo-traditionalists, however, take a different approach; they view the teaching and learning process as one of cause and effect. Theorists' whose views are aligned with a neo-traditionalist posture are committed to the improvement of instruction, for example, but rely heavily on current knowledge about effective teaching and administrator practice to determine appropriate criteria for supervision (Cousins, 1995). In this view, the relationship is described as hierarchical with the supervisor controlling the process. The attraction of the neo-traditional model is its specificity, generalizability to all subject areas, and accountability (Tracy & McNaughton, 1989). However, such consistency has all too frequently become rigid when put into practice. Teachers themselves express concern about, "being forced to adopt a single model of teaching" (Garman & Hazi, 1988).

Is reconciliation possible? Tracy and McNaughton (1989) think not. The two sides are viewed as representing drastically different educational philosophies of teaching and learning. A central point of division comes from the notion of "who owns the process". On the one hand, the neo-traditionalists posture puts the supervisor in control of a hierarchical relationship, resulting in an expert-novice relationship with attendant power relationships. On the other hand, the neo-progressives view the appraisee as owning the growth process with the supervisor playing the role of collaborator and facilitator. The later approach is more consistent, at least on paper, with the "supervision for growth" approach taken by some school boards in Ontario.

From the point of view of growth-oriented initiatives, neither the neo-progressive nor the neo-traditionalist position can adequately stand in isolation. Though they have distinct epistemological starting points, it seems reasonable to argue that a combination

of the two is best. Moreover, many researchers writing about performance assessment now call for a broadened and integrated view of assessment that better reflects a conceptual change or constructivist paradigm for education (Angelo, 1995; Collins, 1992).

A central issue becomes the problem of how supervisors can promote a collaborative context without being prescriptive, judgmental and hierarchical. Portfolios appear to hold a promise as a solution to this problem, but empirical evidence is thin despite much rhetoric on the topic. Delving into the literature, research since the 1980s seems to have shifted toward a more teacher-centered supervisory process that focuses on the need to help teachers become more reflective about their teaching (Murphy, 1994). The extent to which this trend is observable in practice remains debatable.

For the practitioner, the practice of reflection can be considered a formal way to generate knowledge. The benefits of reflection and the importance of personal experience have been suggested elsewhere (Schon, 1987; Sergiovanni, 1992). Garman (1986b) states that reflection is not merely a mental re-examination of past events aimed at justifying actions or defending consequences. Neither is reflection a way of determining what should be done, a way of replaying the scenario with a slightly different script. Reflection occurs as a result of using data collected over a period of time. Reflecting provides an opportunity to carefully consider what one is doing and why. It is through this self-analysis that one can examine the decisions and experiences that shape one's professional life.

The Portfolio as a Means to Promoting Self-Reflection

Diez (1994) states that the portfolio offers encouragement for reflection in at least three ways. First, it provides both the discipline and the freedom of structure, allowing one to see one's own work. Second, it provides the opportunity to assess one's own strengths and weaknesses through an examination of a collection of samples, as well as to get feedback on one's performance from others. Third, the process of self-assessment leads one to setting goals for future development and professional growth.

Empirical research on supervisors' observation and judgment provide evidence that "conventional methods are inappropriate for examining the complexities of teaching" (Bosetti, 1996; Perkins & Gelfer, 1993; Wolf, 1991). An interesting example of this finding can be illustrated by a study undertaken at the University of Pittsburgh (Garman, 1986a, p.151).

Experienced administrators were asked to watch a filmed classroom lesson. Administrators were asked to write down what they thought was the teachers' intentions for the lesson and the extent to which she achieved them, using initially their own notes then with verbatim transcripts. Using their own notes, less than 2% were able to give an accurate picture of what the teacher had said, 43% were partially accurate, and 55% were totally inaccurate.

This brief illustration provides evidence that traditional one-shot observation can intrude on the supervisor's ability to understand the essence of the teaching act. As Sergiovanni (1987, p.77) explains, "teaching occurs in concrete situations of enormous complexity, and administrative policies, directives and surveillance cannot substitute for the decisions teachers have to make in their situations." Clearly, more research is needed

in this area, but this example point to the benefits of collecting ongoing and consistent data. In such a context it is the function of the supervisor to provide the teacher with collaborative help that encourages the teacher to become the primary knowledge generator. Collaboration promotes team building and can also help to break down the "them" [teachers] versus "us" [administrators] distinction that commonly surfaces. Several others have discussed in detail the benefits of a collaborative approach to assessment (Bosetti, 1996; Cousins, 1995; Duke & Stiggins, 1990; Seldin, 1993).

In effective collaborative performance appraisal, changing teacher behaviour is not the most important goal of the supervisor. Rather, the critical task of the supervisor is to help teachers more successfully engage in reflective behaviour, which is thought to be a necessary element in professionalism. The purpose of this approach to supervision is to engage the teacher in reflective behaviour while fostering critical inquiry about teaching and learning thereby increasing the teacher's understanding of his/her teaching practice. Such understanding might be characterized, for example, by broadening and deepening the repertoire of images and metaphors that the teacher can call on to deal with problems (Siens & Ebmeier, 1996). As Garman (1990) states, teachers and supervisors must jointly find ways to capture how a teacher unfolds the content of a particular unit of study and how students, over time, encounter the content or develop the intended skills. Taking a quick snapshot of the process is no longer good enough. Portfolio assessment has been proclaimed, at least in theory, as one approach to help combat this conventional assessment dilemma, while at the same time acting as a stimulus for teacher professional growth and development.

Having situated the portfolio process within the clinical supervision context, the discussion now turns to a critical examination of what is known in the area. The previously specified conceptual framework guides this critique.

Conditions/Factors Influencing the Process

Implementing change is not always an easy task. However, one promising way to change the traditional 'mind-set' about performance appraisal and to put much greater emphasis on professional growth is to involve staff directly in the development of performance appraisal systems (Duke, 1990; Duke & Stiggins, 1990; Hargreaves & Fullan, 1992). This view is echoed by Manz and Sims (1990) who state that change must come from within, if a school district wants to improve teaching and learning, it should allow for teachers to have some ownership in setting their professional goals and choosing assessment methods.

Undoubtedly, the standards of the organization will do little to change teacher behaviour if teachers do not accept the standards, nor will the organization's rewards produce desired results if the rewards are not valued. As Blake, Bachman, Frys, Holbert, Ivan and Sellittort (1995) state, "no matter how teacher performance is appraised, the evaluation that is most meaningful is self-directed...self assessment is motivating; it helps teachers to feel challenged, to possess enhanced self-esteem, and to be excited about professional growth. In addition, assessment must also be consistent with the teacher's own approach to professional growth and development.

Sergiovanni (1992) contends that quality control and professional development, are natural expressions of good self-management. Whether one is willing to let go of the concepts of command and instructional and interpersonal leadership, and accept the

viability of substitutes for leadership depends on one's 'mindscape'. Portfolio assessment would, in theory, allow teachers to demonstrate their professionalism through an ongoing process.

Some authors believe that portfolios could be used as an evaluative tool. Richlin and Manning (1995), for example, see the teaching portfolio as an alternative form of representing achievement in teaching, a means of evaluating teachers. However, the majority of authors cited contend that the portfolio process serves a more useful purpose as an assessment/self-assessment tool if the goal is professional development.

Thus, the precise use of the portfolio must be made clear to teachers at the outset of the process. As Cousins (1995) states, the potential for confusion about growth enhancement and personnel decision making is high and thus the process needs to be clearly articulated. Further, motivation to participate is likely to depend on the orientation of the process.

Motivation to participate in the appraisal process is an important factor whose influence appears to be mixed in many of the studies reviewed. Several studies indicated that many of the "voluntary" participants were individuals scheduled for evaluation in the particular year in question. Further, for teachers on temporary or probationary contracts, this process was viewed as an opportunity to demonstrate their willingness to be involved in new initiatives and have their evaluators know them at a deeper level (Bosetti, 1996). Others state that in reality, it was the younger less experienced teachers who most willingly shared their self-analysis and personal insights (Wolf, 1991).

Ball (1991) states that "appraisal seen as a form of confession is thus particularly potent". It embodies both revelation and redemption, and brings the personal and

organizational into intimate relation. Of course, there is always the risk of teachers who may exaggerate their performance. Therefore, without an environment of trust and camaraderie, teachers would not feel safe enough to honestly reflect on their own practices, nor would they be willing to take risks if they were evaluated on every new idea they tried in the classroom (Blake et al., 1995; Cousins, 1995, Duke, 1990).

Furthermore, the organization of schools and the politics of reform are very much at play in this context. It can be questioned whether educational authorities are genuinely committed to allowing teachers to frame their own discourses of learning and to take the lead in formulating their own goals for professional growth (Bosetti, 1996; Shula & Wilson, 1995; Wolf, 1991). As Bird (1990, p.252) observes, "the potential of portfolio procedures depends as much on the political, organizational and professional settings in which they are used as on anything about the procedures themselves".

Overall, most studies located on this topic are theoretical in nature or are based on reflections on practice. The empirical studies referenced tended to have weak designs, and generally failing even to allude to consequences or impacts of the process. Overall, results are often inconclusive.

Portfolio Process

As observed above, in a search of the relevant literature one finds few empirical studies in which portfolio assessment was utilized for teacher growth and development. However, where empirical studies were found (Bosetti, 1996; Perkins & Gelfer, 1993; Wolf, 1991) they tended to focus on the process of constructing the portfolio -- more a 'how-to' guide -- neglecting to discuss the impact this tool had on the participants and organizations involved. Overwhelmingly, the literature is saturated with opinion pieces

which espouse the benefits of portfolios, but provide limited tests of potency and effectiveness (Barnet, 1995; Bird, 1990; Blake et al., 1995; Ryan & Kuhs, 1993). However, it should be noted that such articles can provide a base from which to probe the possibilities of the portfolio process in promoting an innovative assessment and growth strategy.

Overall, portfolio assessment is viewed as a viable method for allowing reflection and growth to occur. After a thorough review of current literature only one study, which incidentally focused on student assessment, provided a comprehensive conceptual model in which to guide the process (Murphy, 1994). Other studies describing the portfolio process included some, but not all of the steps in Murphy's model. Existing studies that were located did not elaborate on the extensive planning stage. While this stage was alluded to, it was not given central importance. Murphy (1994) explains that the planning phase is critical to determine the ultimate design, range and depth of the process. It is in this formative stage that the intent of the portfolio must be discussed, and of critical importance, understood by the teachers involved. Another critical stage involves the establishment of goals to be used by teachers and administrators in guiding the process of constructing the portfolio.

Goal setting should produce a rationale, which includes provincial, local and individual goals. The goal-setting atmosphere needs to be of a collaborative nature leading to the building of common understandings. The next stage in the process involves setting portfolio standards. According to Murphy (1994), standards should specify what aspects of teacher growth and development will be illustrated by the portfolio, for example, to include on the teachers' best work. Murphy also suggests that

at this stage a timeline should be agreed. Again, the literature is scarce in detailing tools to aid in this standard setting process. However a few studies that were located shed some light on the process.

Ryan and Kuhs (1993) discuss a six-component model based on the earlier work of Shulman (1986). This model sets out to describe what an "excellent teacher" should represent. The authors feel any guiding standard/criteria must take into account the six principles which are: 1) knowledge of the subject matter, 2) intellectual abilities and problem solving, 3) pedagogical skills, 4) curriculum knowledge, insight and skill, 5) knowledge of learners and learning, and 6) attitudes and dispositions. It should be noted that strict adherence to such principles would serve to diminish the importance of teacher input, thereby rendering the process neo-traditional in character. However, it seems likely that teachers and administrators could use such a framework as a basis to collaboratively establish criteria, and subsequently proceed to construct the portfolio. Ryan and Kuhs' ideas are supported by Sergiovanni (1992) who believes that if schools abandon direct leadership for the promotion of collaboration and professionalism in teaching, teachers would still be committed to excellence and would monitor their own practices. Subsequent to the establishment of standards and goals, the structure of the portfolio must be set.

According to Murphy (1994) establishing the portfolio structure is a two-part process. The first involves the conceptual structure where goals need to be identified. The second part is the physical structure depicting the arrangement of entries and documentation of performance tasks. The literature on growth-oriented uses of portfolios is extremely vague in detailing the process; most pieces were more of a guide to begin a

portfolio rather than a documentation of the actual process. However, the few studies located described the process as more of a trial-and-error procedure in which participants entered without much knowledge or guidance. The final stage of the portfolio construction process is the selection of contents. Again, the literature reviewed proved silent with respect to guidelines or aids for content selection.

Overall, the relevant resources were somewhat vague in detailing the process of portfolio construction. It appears that most efforts at construction are done by trial-and-error basis. Blake et al. (1995) state that the entry selection or criteria for portfolios must be clearly established, or the portfolio could become a clumsy collection of teaching artifacts that show little relationship to critical teaching tasks or teacher reflection. Seldin (1993) states, portfolios are highly personalized, they reflect the individual and provide a unique picture of the teacher. Further, Seldin states that no two portfolios are alike, as such, it is recommended that individual differences in content and organization be encouraged.

However, before teachers are to select appropriate materials for their portfolios they need, as previously mentioned, a clear understanding of what the portfolio is, its goals, and what they will be expected to show as evidence of their learning. To aid in the complex task of content selection, Simon, Forgette-Giroux and McLeod (1997) in their work on student evaluation, reveal an interest in the development of a generic content selection framework. The authors believe this framework could offer a balance between full standardization and unlimited constraints, between quantity and quality of samples selected and, ultimately, for assessing individual's goals. Such a framework may prove to be beneficial for the complex task of documenting one's growth over time. As Bosetti

(1996) states, in her recounting of the construction process, the greatest challenge in the entire process was setting the standards and subsequently deciding on the contents.

Likewise, Wolf (1991) in his article focusing on the practicalities of developing a teacher's portfolio details the time and effort required creating the criteria to be used to guide construction. Wolf details how participants first had to brainstorm to create a list of possible criteria dimensions, then the group selected core areas from this list in an attempt to be more specific. Wolf describes the numerous, almost overwhelming, decisions that had to be made throughout the construction process. For example, at the outset the group had to decide if only their best work should go into the portfolio. Further, they had to decide what type of evidence to include (e.g., videotape, written documents, and personal accounts). Also, they had to come to a consensus on how they would display such evidence, and ultimately how much evidence would be necessary.

Wolf states that a key decision had to be made whether to adopt a structured versus unstructured approach. The consensus was to adopt a semi-structured approach: Wolf documents that initial feedback from the teachers participating in the process indicated that they wanted more direction.

Apart from the stated benefits of self-appraisal one would be remiss not to mention apparent disadvantages. The most obvious shortcoming of the portfolio process is the amount of time and effort required to engage in the process. Therefore, empirical research on the benefits of the approach is needed to justify the energy that portfolios require. Another issue that was briefly alluded to in the literature, but of critical importance, is the scoring and/or interpretation of portfolios. From the relevant literature, it remains unclear by whom the scoring/interpretation should be done. Whatever the

approach, it must be clear, as Hargreaves and Fullan (1992) state, that traditional professional development has negative overtones which is likely due to the fact that most of the time it is designed to focus on and compound weaknesses. Thus, discussion should be initiated by examining strengths, followed perhaps by some suggestions for areas of improvement, thereby increasing motivation and enthusiasm for continued professional growth.

It should be acknowledge that some assessment of contents is necessary and narrative comments may prove most useful. Murphy (1994) suggests that while teachers' work may be compared to some predetermined standards, one portfolio should not be compared with the work of another teacher, thereby promoting an atmosphere of individuality. Also, the standards used in the assessment need to be flexible enough to incorporate unanticipated or undesirable outcomes that may not have been originally thought of.

During a portfolio conference, a session set-aside for the teacher to discuss progress with the supervisor, teachers could act to guide their supervisors and peers through a tour of their practice (Murphy, 1994). Such conferences would give teachers the opportunity to explain the reasons for sample selections they have made. In this sense the portfolio conference could act as a type of formative evaluation accomplished through collaboration and discussion.

Duke and Stigins (1990) raised the issue of whether communication should be simply descriptive and nonjudgmental or whether evaluative feedback should be provided in the growth-oriented process. The assumption underlying the provision of nonjudgmental feedback is that the teacher is her or his own best judge, or worst critic as

the case may be (Cousins, 1995). Kilbourn (1990) states that providing nonjudgmental feedback is no easy task as comments are inherently evaluative. Nonetheless, the portfolio can provide the opportunity for dialogue, thereby encouraging an atmosphere of collaboration leading, ultimately to improvements in teaching and learning.

Impact/Consequences

Many teachers argue that the traditional checklist approach to evaluation is inappropriate in measuring the quality of classroom practices and teacher accountability (McLaughlin & Pfeifer, 1988). Others have faith that teachers have expectations about their own performance, and after assessing themselves, will modify their behaviour accordingly.

As Hargreaves and Fullan (1992) state, to make professional development programs work for professional teachers we must give the responsibility for professional development to teachers themselves. As teachers choose the components of the portfolio and become involved in their own learning and assessment, they are more likely to become more reflective. Shackleford in (Seldin, 1993) stresses that the process of developing a portfolio has a substantial impact on teacher attitudes toward teaching and learning. He concludes that the teaching portfolio process, which includes an extended period of introspection and self-reflection, supports enhanced teaching, revitalizes teachers, and sharpens their interest in teaching. However, the speculative nature of this conclusion must be highlighted. As there is currently scarce empirical evidence on individual level impact of portfolios.

Thus, it is postulated that this reflection will produce the opportunity for teachers to rethink their practice, enhance their learning, and will provide increased motivation

towards professional growth and development. This sentiment is echoed elsewhere, although with respect to organizational changes.

In particular, Hoy and Miskel (1996) view leadership transformation as enabling the simultaneous creation of a co-operative learning organization. The literature on using portfolios for performance assessment was extremely scarce with respect to organizational effects. If teachers' experience changes in their levels of learning and are motivated to pursue ongoing professional development it is postulated that changes will also occur at the organizational level. As Wolf, Whinery and Hagerty (1995) state, conversations focused on portfolios can have tremendous potential for professional development and building a professional culture to support reflective, collaborative improvements in teaching.

In addition, there can be unanticipated and undesirable consequences of the portfolio process. For example there is the vulnerability of misrepresentation and a potential 'dark side' to a teacher evaluation process that is growth-oriented based on self-analysis, self-understanding and self-betterment. There can be dangers in 'self-policing' as teachers could be led to polish the document to a degree that is out of proportion to its functions and importance, or even misrepresent its source (Bird, 1990). Making explicitly clear the distinction between evaluation and professional growth could circumvent at least part of this problem.

Despite the aforementioned shortcomings, portfolios appear to be an innovative strategy for teachers to take more control with respect to their professional growth. However, the lack of empirical data leaves many important questions unanswered. Coupled with the fact that there is a shortage of clear descriptive data and a paucity of

concrete examples, the present research seeks to address such deficiencies not only to describe the process, but to also explore the impacts of this general strategy. To achieve this goal the study will examine the evolution of one school's portfolio program from initial implementation to its current state.

Specific Research Questions

Three sets of research questions will guide this investigation. Each set of questions corresponds to components of the conceptual framework as depicted in Figure .1. The questions guiding the research, then, are:

1. What conditions and factors influence the use of portfolios in performance appraisal for growth?
2. What does the use of portfolios for performance appraisal look like in practice? How is it intended to be implemented? To what extent are things implemented as planned? Is the process collaborative or supervisor-led?
3. What are the consequences of using portfolios for professional growth in a performance appraisal context?

Given the paucity of data in the area and the wide range of variables involved, the present study is exploratory in nature and employs a qualitative orientation to data collection.

CHAPTER 3: CONTEXT

The sample for this study was drawn from a Catholic elementary school in a small Eastern Ontario town with a population of slightly over 10,000. The majority of residents could be classified as average income earners. In particular, the school involved in this study serves close to four hundred children and has a staff of about twenty full-time teachers. The sample consisted of the principal and the vice-principal, both of whom were female, and five volunteer teachers, four women and one man.

Administration

At the initial meeting with the researcher, both the principal and the vice-principal expressed a high level of enthusiasm towards the study. During this meeting the principal discussed how the teachers were formally assessed once every three years according to board policy. However, the principal relayed her dissatisfaction with this "traditional" performance review to be able to stimulate professional growth among the teachers at the school. As such, she initiated the use of teaching portfolios to act as a stimulus for professional growth and development. In essence, this school had two systems at work, one formal appraisal process and one process initiated by the principal intended to stimulate teacher professional growth.

The principal stated the portfolio process was given a lot of support from her superintendent as she was often asked to give speeches concerning her experiences starting and maintaining this strategy. Overall, both the principal and the vice-principal echoed the sentiment that this was a pioneering effort within their board, and one that was attracting support and attention.

Specifically within the school, the principal believed that most of the teachers were "more or less comfortable with the idea of using professional portfolios". The principal explained how she purchased a folder for each teacher and brought these to a staff meeting before the school year began. During this meeting, the principal simply introduced the teaching portfolio idea, then presented each teacher with a folder which would become his or her professional portfolio.

Upon asking the principal if the teachers had the opportunity to discuss their portfolio contents, the principal began to describe her "monthly meetings" with the teachers. The principal detailed how at the beginning of the year she sits down with each teacher and they collaboratively set goals for that individual. It became apparent that there was not a pre-established framework within which to assess goals, but rather the teachers would set a goal and begin to collect items, completely of their own choosing, to illustrate their progress towards meeting such goals.

As described, these "monthly meetings" are time set aside each month in which the teacher brings with him/her their portfolio and meets with the principal individually to discuss their progress towards meeting their pre-set goals. The principal felt this meeting was an excellent opportunity for dialogue, but also a mechanism to ensure the portfolios are being utilized.

From this initial meeting with the administration, it became apparent there was not much rationale provided as to the purpose of teaching portfolios other than that they were to be used to promote teacher professional growth. As promised, a copy of the researchers' literature review was left with the administration and teacher interviews were to be scheduled by the principal.

External Circumstances

Getting back into the school for interviewing proved to be more difficult than anticipated and in hindsight this could be attributed to a multitude of factors. Besides the implementation of both a new math and a new language curriculum, and a school district amalgamation, there was an Ontario wide teacher protest. However, after the teachers had returned to work and enough time had passed to allow for some semblance of normalcy, the principal seemed overly cautious to further probe for the researcher's interview questions before providing her with names of potential teacher participants. This gave cause to wonder if the administration had looked more closely at the literature review provided and began to have concerns about the "quality" of their initiative or was it more due to the external climate?

Nonetheless after repeated calls, the researcher was given the names of four participant teachers with tentative interview dates. Unfortunately, on the first scheduled interview date a severe ice storm had hit southeastern Ontario, thereby closing the schools. Once the schools re-opened and more time had passed the interviews finally got underway.

Teachers

For the most part, the teachers appeared to enjoy the interview sessions and discussed at length their experiences with the portfolio process. The experience levels among the teachers ranged from one still on a probationary contract, to those with 10-20 years experience, to a teacher in her last year of teaching before retirement. Overall, the teachers seemed supportive of each other as they often gave examples of assisting each other when describing events. After talking with the teachers it appeared as though this

school had a collaborative atmosphere in which teachers valued the input from their peers, but also from the administration.

Like the principal, the teachers commented on the existence of a "formal" appraisal process as something that is sent to the board office and a portfolio process as something that is done for "oneself". It became clear that it was difficult, if not impossible, for teachers to separate the formal appraisal process and this new professional growth activity. In particular, one teacher said "I'm on performance appraisal this year so this [lesson plan] will look really good in my portfolio." However, despite the fact that this initiative was principal driven and there was a lack of clear guidelines causing initial confusion, the teachers were genuinely enthusiastic to discuss their accomplishments detailed within the portfolio and their practice in general. Thus, these teachers provided a hint of the potential for this tool in motivating teachers to engage in professional growth.

CHAPTER 4: METHODS

The present study is largely exploratory in nature and will be guided by the conceptual framework as previously described (Figure 1). It is believed that qualitative data, with their emphasis on people's "lived experience", are fundamentally well suited to this study. This is especially true since the study attempts to locate the meanings people place on the processes they encounter as a result of being involved in a portfolio process. Also, qualitative data hold the power to preserve chronological flow and make it possible to derive meaningful explanations.

The study sets out to examine the process, conditions and impacts/consequences of portfolio assessment on teachers' professional growth and development. The study is designed to describe the evolution of one school's portfolio program as it progressed from initial implementation to current conditions. The study is a single case study (school) in which data was collected from seven participants (teachers, administrators).

The principal endorsed the researchers' request for volunteer teachers to participate in the study. Due to the fact the principal requested participant volunteers one must be cautious to possible biases in favour of the portfolio process.

This school had been experimenting with teaching portfolios for the past three years. The focus for the portfolios was to promote teacher professional growth and development among staff. As previously discussed, the principal mentioned that teaching portfolios were initiated, as she was unhappy with the "traditional" assessment strategy mandated by the school board. As such, the supervisor felt the portfolio process would demonstrate a more complete picture of the teacher's practice.

Once interviews got underway, efforts were made by the researcher to probe for the existence of teachers who held dissenting opinions about the portfolio process. This was accomplished by spending a great deal of time talking with the participant casually, making them feel at ease, and giving them repeated assurances all information would remain strictly anonymous and confidential. This persistence to uncover all views proved fruitful. The researcher was granted school time, by the principal, to interview the four of the teachers, chosen by her. However, during one interview, the researcher managed to obtain the name of a particular teacher who was not as keen as the others about this new initiative. For this individual, a brief telephone interview was arranged, after notifying the administration. Additionally, to help offset bias stemming from the effects of having the researcher on site, an effort was made to triangulate the data over interviews, document analysis and on-site observations.

Instruments

Interview guides were developed for each of the participant groups (see appendix A for administrators and teachers' interview guides). The interview questions were framed by the conceptual framework and explored the conditions, process and consequences of utilizing portfolios for professional growth and development. The interview guides were semi-structured allowing for emergent responses. During the interviews any relevant documentation that was discussed was photocopied (with the permission of the participant) and kept for future reference. In hindsight, such documents assisted the researcher to appreciate the paucity of information given to the teachers upon portfolio implementation. Most forms were meant to serve as a guide helping teachers to choose portfolio entries. A list of the documents obtained appears in Table 1.

Table 1 Document Checklist

ITEM TITLE	DESCRIPTION
My Professional Portfolio	Sample of "how to" divide the portfolio into categories, with examples for each category provided *(principal initiative)*
Portfolio Review Sheet	Reflection aid *(principal initiative)*
Peer Response Sheet	Collaborative reflection aid *(principal initiative)*
Strategies for Achieving My Curriculum Goals	Reflection aid *(principal initiative)*
Goal Setting	Goal establishment aid *(principal initiative)*
Reflective Reading Log	Space provided to record the titles of professional reading samples, with key points noted *(principal initiative)*
Teacher Performance Appraisal Document	Obtained from the board office

Procedure

Initially data were to be gathered over three successive interview rounds. In practice, due to constraints beyond the researchers' control, it was feasible only to involve two rounds. In round one, the supervisors (principal and vice-principal) were interviewed. Information was obtained focusing on the three components of the conceptual framework, conditions, process and consequences. However, the supervisors were also asked to provide information concerning each of the selected participants such as years of teaching experience, motivation for professional growth, and disposition towards the initiative. Next, each of the teachers were interviewed to obtain their views on the process, conditions influencing its effectiveness and ultimately the overall impact the strategy had.

The final round of interviews would have entailed going back to each of the participants in rounds one and two, verifying the investigator's interpretations, and seek clarification where required. Due to the uncontrollable circumstances, i.e., teacher protest, provincial report cards, ice storm, time was not permitted to re-interview each participant. Instead, the researcher telephoned the participant as a means to verify the researcher's interpretations and ask for elaboration if required.

It should be acknowledged that prior to each interview the researcher took extra effort in creating a comfortable atmosphere by carefully explaining the rationale for the study. Interviews were audio tape recorded with the participant's permission.

Analysis

After each of the interviews, audio tapes were transcribed into verbatim transcript files, culminating into 75 single spaced typewritten pages. In addition, field notes were added to the respective participants' file. Next, the researcher invoked a data reduction process in which codes were affixed to the verbatim interview transcripts. Codes were assigned to reflect variables associated in the conceptual framework, however, the researcher kept an open mind as to the existence of variables and unanticipated effects; making careful notes for future reference (see Appendix B for the list of start codes utilized). Reflections or interesting findings were noted in the margins. Following from the coding the researcher began sorting through the materials to identify similar relationships between variables, patterns, themes, distinct differences between groups, and common consequences. Findings were recorded in a notebook book for quick future reference.

In conjunction with sorting through the data, probing for meaningful relationships, data display tables were created in an attempt to assemble the organized information into an immediate and accessible compact form. As Miles and Huberman (1994) state, valid analysis requires, and is driven by, displays that are focused enough to permit viewing of a full data set in the same location, and are arranged systematically to answer the research questions at hand. This advice was followed closely as the researcher began building the displays.

It was decided matrices would be used to best display the data for this single case study. Further, it was decided the researcher would enter relatively thick descriptions: if

cells were too thin the meaning of the data would not be as apparent. Finally, the type of matrix varied according to the research question involved.

A checklist matrix was utilized to portray the data that pertained to research question one, namely focusing on the conditions supporting the process. A mixture of direct quotes and summary phrases were used. The researcher crudely scaled the categories, as described in the legend (Table 2), to further facilitate analysis. This particular matrix permits one to sum up the components of "preparedness" vertically, and also compare different roles' preparedness on specific conditions by looking across the display.

A role-ordered matrix was deemed to be most effective in displaying the descriptive data pertaining to the second research question concerning views on the portfolio process itself. The role-ordered matrix permits the sorting of data in its rows and columns that have been gathered from or about a certain set of "role occupants". This type of display is particularly effective in that one can easily identify patterns; similarities and differences according to the role one is associated with, in this case either teachers or administrators. One is able to begin to make comparisons by looking down columns of the matrix, both within and across roles to note what is happening. As the second research question involves describing the process, evaluative scaling was not utilized. Instead, the researcher provides an interpretation within the text.

The third research question, concerning consequences/impacts, aimed at understanding the overall effects the portfolio process had. Thus, an effects matrix was employed as it would allow the researcher to assess multiple variables, to distinguish them among roles, to pool responses and to align responses along an evaluative scale. Of

significant interest was that this particular "effects" matrix held the power to condense approximately thirty pages of field notes on a single page. Direct quotes were used as the basis for entries into the cells. Again, relatively thick descriptions were utilized to ensure the meaning of the data was conveyed.

Overall, the analysis of the constructed matrices permitted the researcher to take an initial perusal of the data, noting blatant findings. Next, more careful probes of the displays were undertaken in attempt to verify, revise or confirm first impressions. Upon examining the data on numerous iterations, relationships both within and across sections of the conceptual framework emerged. Findings were entered into the notebook to facilitate this impending consolidation in written form.

CHAPTER 5: RESULTS

The study employed a cross-sectional approach to examining one school's portfolio program as it evolved from initial implementation to its current conditions. The research, although guided by the conceptual framework, uncovered interesting unanticipated results. Each research question is explored and discussed in the following sections.

Conditions Influencing Use

Due to the lack of available empirical research on portfolio use, especially as a tool to promote teacher professional growth and development, this school is a pioneer in this field within their board. Implementation for this initiative was strongly supervisor-driven. When asked why this process was undertaken the answer was threefold. First, the principal was dissatisfied with the "traditional" evaluation process, for in her words, "it did not tell the whole story of the individual's practice". Second, this innovation was implemented in conjunction with student portfolios, the rational provided by the principal was that, "when you take a look at a portfolio of a child then you take a look at a professional portfolio of a teacher; it helps the teacher understand better the process the student goes through". Third, "it fit with the overall philosophy of the school".

Further, the administration (consisting of the principal and vice-principal) stated that this was not a board-mandated directive, but an experiment at the school. However, the principal did concede that the increased attention to the process within her school has raised considerable interest both at the board level and from other schools. Undoubtedly,

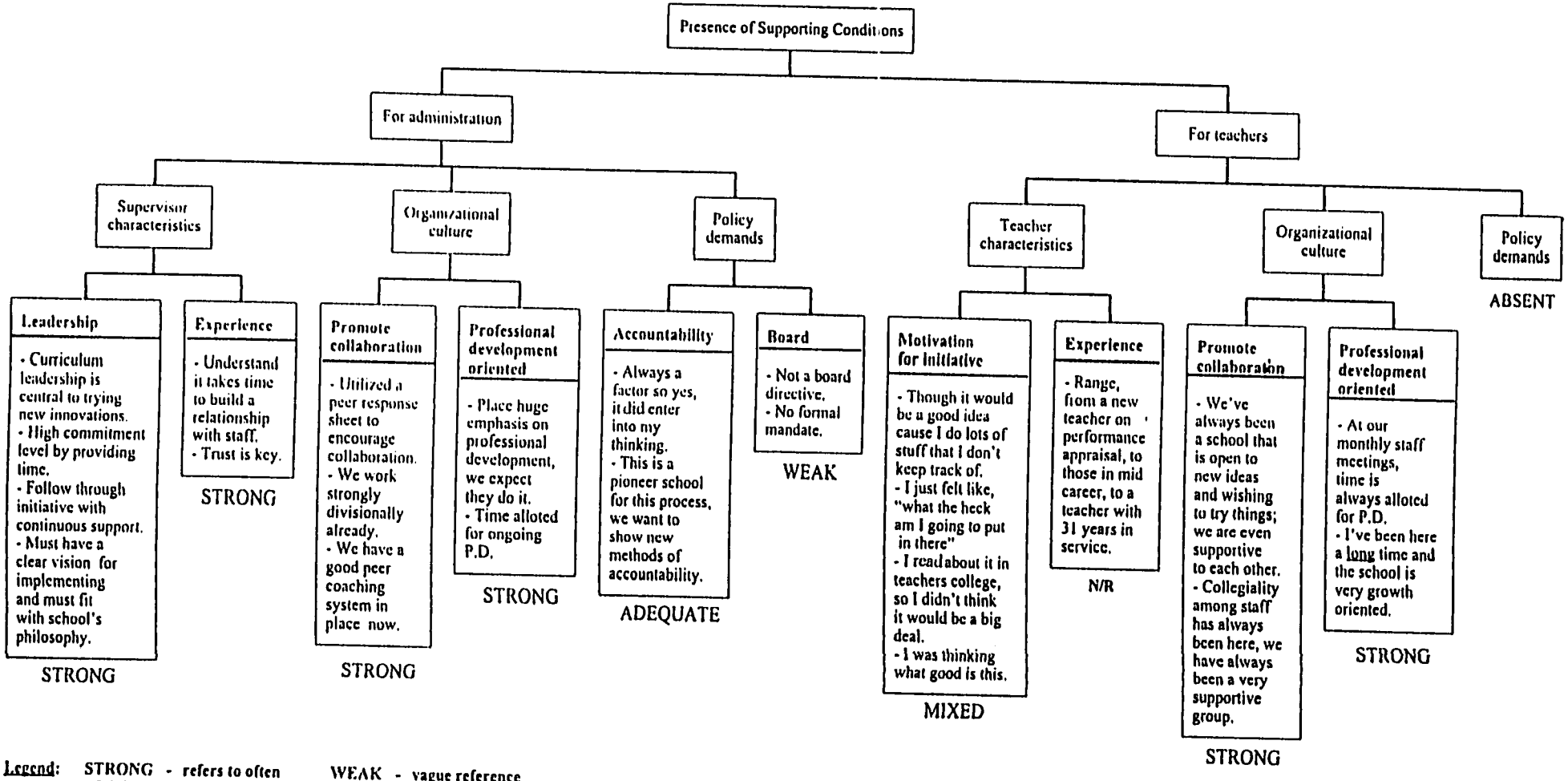
it has also raised the profile of this principal within her board, for as the process evolved it has become more stable, and in her view "more successful".

To reiterate, because this process was instigated by the school administration, the supervisors' characteristics became central in ensuring the process got underway. As Table 2 illustrates, the supervisors' characteristics were rated by the researcher as strong, with a high level of commitment and support for the innovation. Coupled with a dominant administration, the experience was evident in that the supervisors realized that the timing of implementation was crucial in forming a solid basis from which to launch the process. As the principal put it, "you have to first build a relationship, you have to get to know your staff, you must really believe they are professionals...and that they want to grow professionally and they find it useful, and they need support."

Clearly, this leadership style, coupled with the level of experience among the administrative team has contributed to success in promoting a culture of collaboration and professional development orientation (see Table 2). Teacher-principal informal meetings are held once a month as a form of debriefing about progress towards established goals. Also, a peer coaching system established by the administration is in place to provide necessary support when required. As explained to the researcher by both the administration and the teachers, the peer coaching system is an opportunity for teachers to learn about new curricular developments from each other. As such, various individuals become specialists in a given area.

Whereas policy demands were alluded to, especially in terms of the ongoing need for both supervisors and teachers to be accountable, one could postulate that the process acts to showcase the leadership abilities of the administration and in turn, to display an

Table 2 Check List Matrix: Conditions Supporting the Portfolio Process



Legend: STRONG - refers to often
ADEQUATE - refers to
MIXED - reactions varied
WEAK - vague reference
ABSENT - no discussion
N/R - no rating required

innovative form of accountability for teachers. Evidence of this could be found in the principal's response to how the portfolio was structured to which she remarked; "I aligned the categories for the portfolio closely to my management plan that I must submit to the board because that's what I'm accountable for".

Despite concentrated efforts to initiate this process and foster a culture conducive to implementing change, the reactions among the teachers were clearly mixed. As Table 2 illustrates, responses ranged from positive: "a good idea", to ambivalent: "not a big deal", to uncertain: "what the heck will I put in there?" Probing the teachers in an attempt to understand such mixed views, the teachers explained that they had been presented with the portfolio idea with relatively little guidance on how to proceed. Anxiety stemmed from the unknown, as teachers themselves related their concerns with respect to the intent of the process.

It is interesting to note that every teacher at the school was required to engage in this process. As one teacher with many years service put it, "the choice was <u>how</u>, not <u>if</u>," however, there was not a lot of apparent resistance to the initiative. As the principal stated when asked if there were teachers resisting the process, "probably, they didn't tell me that, though they did tell me later that it was actually more a fear of what goes in it." Perhaps, due to the strong professional development orientation at this school coupled with the leadership style of the administration, teachers had an adequate level of trust with which to cautiously proceed.

Portfolio Process

With the scarcity of relevant research, detailing the process was an intriguing endeavour. While, Murphy (1994) provides a comprehensive model, most actual efforts are experimentations, yielding their own particular style and the process at this school proved to be no exception.

Planning Phase

As previously stated and revealed in the planning phase column of Table 3, this process was clearly supervisor-led. Contrary to Murphy's (1994) model, the administration at this school executed all decisions with respect to initiating the process and constructing the actual portfolio. As such, the administration planned and executed all decisions with respect to the conceptual design of the portfolio. For example, the administration decided on the categories of the portfolio: teacher as visionary, teacher as planner, teacher as lifelong learner, teacher as assessor, teacher as celebrator and teacher as spiritual leader. In addition, to providing the physical structure of the portfolio itself. The teacher involvement in the process began once after the planning decisions had been made.

However, the administration faced a difficult dilemma of providing a structure allowing for flexibility and individuality, while at the same time recognizing the need for guidelines as an aid. The goal was for the process to be fairly free from constraints so the teachers would feel comfortable being creative and making modifications where they saw fit.

Table 3 Role Ordered Matrix: Reactions to the Portfolios Process

Role	Experience	Planning Phase	Establish Goals	Contents	Self-critique/Reflection
TEACHERS	> 5	- Introduction by Principal, she gave us an idea of what should go in there but left it open to us. - Easiest to take her plan and modify a little.	- We have a school goal and a few personal goals. - The school goal is developed by the staff. - The personal goals are developed in collaboration with the principal.	- I pick things that relate to my goals and anything else that shows "extra" work. - Anything I do with other people I"ll put in, i.e., committee project samples.	- For the past 2 years I've been on performance appraisal so I often go back and look at my goals ... this has really helped me. - It's a visual tool of your growth and of areas that need work.
	5-10 yrs	- Basically our principal made an introduction, gave us the portfolio with an outline and said, "Go for it". - If we didn't like this format we were invited to seek out other avenues but this one is so simple I stuck with it.	- Generally, at the end of August we have meetings and come up with a goal the school works towards. - We also write personal goals, usually 1 or 2, so that they are manageable.	- We keep all the planning we do, copies of long and mid range plans that are expected of us. - The criteria was not black and white. At first, I felt it had to be my best work but we encourage the kids not to put in their best work, but what they like. I'm less picky now.	- If you look at it, it shows that I grow. I grew every year and I just keep adding to it, that makes me feel good.
	< 10 yrs	- Presented at a staff meeting without prior staff input.	- We were always required to set goals, now we have to ensure a folder is up-to-date to.	- Usually get some stuff together before my meeting, i.e., copies of lesson plans and notes from meetings.	- We have individual meetings with the principal each month to reflect on the portfolio.
	10-15 yrs	- She provided us only with the portfolio the first year. The outline came the following year. - She got us going on them, we had choices as to how we did it, but the choice was how, not if.	- There are academic or curriculum goals, for us its math. - Personal goals are just things we want to do on our own. - The curriculum goal is always picked by the staff and administration together.	- This portfolio is more a collection of person things whether they be goals or guidelines, outlines, planning. - Difficult at first because there is a tendency to put everything in. - I see it more of a sample of work now, both positive and negative.	- It helps reaffirm the positives and document the growth you go through, but it also highlights the negative areas (parents and staff don't always agree with everything you do).
	<15 yrs	- We were given a structure and we could add to it, but I like her format.	- We develop academic and personal goals. - Usually we have an idea of what our goals will be, then we meet with the principal and if she thinks there are areas we meet to improve, she'll ask you to incorporate it into your goals.	- I have become much more selective than I was in the beginning. - I use mine to keep memoribilia, i.e., notes cards, certificates. - We can put what we want in there.	- It forces you to self-reflect, especially when you have to assess your goals. If we weren't required to do them (portfolios) most would only give this a passing thought. - It makes you feel better to see you have had growth.
ADMINISTRATION	5-10 yrs	- Grew from doing student portfolios. - Unhappy with formal appraisal process; doesn't tell whole story. - Loose structure, gave some but allowed for individuality to emerge. - No much info available.	- We set goals in collaboration with each teacher; individually. - Goals really help drive what is in the portfolio.	- The teachers decided what went in. - I gave them a few hand-out with examples of items i.e., computer module.	- I see it (portfolios) as a celebration, it's a great springboard for discussion. - It really twigs memories to get going on certain areas. - I'm reflecting now that I need to give them more time for their portfolios.
	2-5 yrs	- Organized way to document what one does. - Understand need for some structure/guidance.	- We provide suggestions as to what the goals could be, this year we are focusing on math. - Organization is key.	NC	- I think it is very important that this tool also allows us to look at the gaps.

NC = No comment

The decision was made without collaboration with the teachers to provide an extremely loose structure. As can be seen in Table 3, teachers appeared quite accepting to the structure provided, but as time progressed it was apparent both to the teachers themselves and to the administration that more structure was needed. As one teacher put it, "all we were given the first year was the portfolio (accordion folder) and some suggestions as to what to put in the next year we were given a sheet divided up into 5 (curriculum, faith, professional development, assessment and evaluation, the final a personal choice) categories with examples of items that would go into each category." Interestingly, most found the additional guidance helpful and were content to, "stay with [the principal's] format as it is so simple". Experienced and new teachers alike explained that they did not feel the desire to change the format presented to them.

Three of the teachers interviewed slightly modified their portfolio, although after at least a year had past, to better suit their needs. As one teacher explained, "we have 2 or 3 books on professional development in our staff room and I skimmed through them and came up with a few other things (i.e., computerized tasks) that kind of compliment the categories we were given".

However, aware of the potential bias arising from the teacher participants chosen by the principal, the researcher probed teachers for individuals who were not as keen on the process. Each teacher was able to identify colleagues who find the process, "not suitable to their needs", or felt simply, "accumulating a collection of your work is a waste of time." Despite repeated probing by the researcher, the teachers were reluctant to engage in a discussion of their colleague's negative opinions possibly for fear of reprisal; thus only general remarks were made. However, the researcher did manage to obtain a

name of an individual who was not overly enthusiastic about the portfolio process. In turn, this teacher was interviewed as the fifth teacher participant. In particular, this teacher from the inception of the process, felt alienated from the process, as staff members were not consulted on conceptual or physical decisions.

Establish Goals

With respect to the establishment of goals, Table 3 clearly illustrates there is a consensus among the teachers as to the procedure. This process appeared to be quite straightforward, as there is a general focus, or school goal, which is set in collaboration with the staff, and there are personal goals. Further, it appears as though the individual goals are devised by the staff individually, then are refined in collaboration with the principal.

The principal remarked that it was the goals that helped teachers decide what to include in their portfolio, and for the most part the teachers followed this line of thinking. Each teacher spoke of the school goal as being math and provided examples of goals they had set with respect to math. A grade one/two teacher said, "I wanted to use less paper and pencil tests and implement more hands-on activities," she then proceeded to display the lesson plans within her portfolio which reflecting this goal.

Examples of teacher personal goals included the desire to develop better evaluation and assessment strategies, wanting to become more integrated into the school by joining more committees, and revising the student-led conferencing procedures. According to Murphy (1994) setting standards is the next stage in the portfolio construction process, however this was not the case at this particular school. Due to the supervisor control of the implementation process, extremely loose standards were set at

the planning phase. The administration did not want teachers to have to conform to a specific set of standards, but rather provided some "loose structure" and let the process unfold naturally. Therefore, at this school the next stage was the content selection phase.

Contents

Again, the administration felt it best to, "let the teachers decide what went in it." However, some handouts were given as a means to provide some examples of content items. This *laissez faire* approach to content selection is evident in teacher responses found in Table 3 "Contents" column. It must be acknowledged that the assumption was that this would be an on-going process, therefore content items would be collected over time.

The administration explained that content selection was left completely up to the teachers purposefully in an attempt to promote flexibility and individuality. However, the teachers' viewed this approach with some disdain: "the biggest complaint was what to put in there." In addition teachers were unsure of how many items to include. One veteran teacher put it this way, "some people have big fat ones and some people have really skinny ones, it totally depends on the person."

Although, as the process evolved teachers reported increased comfort levels with the process and in turn the ability to become more selective. As one teacher explains, "now I see it more as a sample of your work, instead of everything you're doing... it was definitely most difficult the first year. On the contrary, another teacher reported that she became less selective.

Despite assurances from the administration that this tool was directed towards enhancing levels of professional growth, there still loomed a tendency to want to put in only one's best work. However, as the process continued to evolve and the comfort level grew teachers' state they began to realize the importance of putting both positive and negative items in their portfolio. As one teacher recalls, "the main goal of the portfolio is to affirm the growth you go through, but part of that is going to be negative...this is important so in the future you'll have documented evidence of how you dealt with a particular situation." Others came to terms with the dilemma in this way, "but we encourage the children not to put their best work in their portfolio, but to put what they like...I started to do what I was preaching."

Only one teacher interviewed, stated that it took a great deal of time to get, 'the portfolio ready for the monthly meeting." However, contrary to the literature, the four other teachers stated time was not an issue for them, going far enough to say that the process had made them more organized than they previously were and thus more efficient.

Despite the fact the administration had a desire for the professional portfolio to be directed towards increasing levels of growth and development, an unanticipated effect of this process became evident as the teachers described the content selection phase. In particular, the researcher noticed the emergence of multiple uses of the portfolios by these teachers. Surprisingly, even with a small sample size ($n = 5$) each teacher discussed a unique use for their portfolio. For example, the teacher still on performance review indicated she closely followed her goals (i.e., to become more involved with staff committees) to direct selection and thus, included things like mid and long range plans,

computerized modules and new assessment techniques. Also, this teacher stated this was a good way to demonstrate her abilities to the administration and the board.

Whereas, the teacher near retirement included memorabilia collected over the years. For example, personal cards, letters of recognition, certificates and many, many cards from students. Therefore, this teacher was using her portfolio more as a showcase. Another teacher stated how she was using her portfolio as a means of possible promotion, as she put it, "it not only shows I'm good at my teaching job, it also shows that I'm organized, so if I wanted to be an assistant principal or whatever, they have to know I'm organized". The items contained within the portfolio included examples of items include, pictures, lesson plans, samples of work done in collaboration with peers and meeting minutes." Overall, teachers state that the portfolio is a way to document the things you do over time, and through self-reflection one can determine if goals have been achieved and thus, if growth has occurred.

Self-critique/Reflection

Self-critique and reflection allows one the opportunity to assess one's own strengths and weaknesses through examination of a collection of work samples, as well as to get feedback on one's performance from others. Table 3 illustrates that the opportunity was given to teachers to reflect during the "monthly meetings" with the principal. However, most teachers indicate they would, from time to time, look through their portfolio to gage their progress in terms of goal attainment. Common to the majority of teachers was the ability of this tool to highlight both the positive and negative aspects of one's practice; thus they were able to determine what aspects of their practice

required attention. Also, teachers reported that the portfolio was a visual aid of growth, a documentation of evidence that made them, "feel better about their job".

A nagging dilemma identified within the pertinent literature concerns whether the portfolio should be evaluated or not, and if so by whom. Murphy (1994) feels that the portfolio should not be evaluated, but instead interpreted in collaboration with supervisors or peers. This thinking is in line with the procedure at this particular school. The portfolios are not assessed, but instead are interpreted in collaboration with the principal to probe for indicators of growth as part of a performance appraisal process. However, in the present case a framework for interpretation was not addressed, perhaps over time the group may develop this.

In this sense, the standard for measurement is oneself; content items are reviewed that pertain to pre-set goals. This can best be described as an overwhelmingly individual process. It is at this stage where most of the modification of goal statements is done. As one teacher put it, "this is a chance for us to modify our existing goals or set new ones to meet our ongoing professional development needs." An important benefit, but one that has not been abundantly evident, is using the portfolio as a source of discussion about teaching.

Specifically, the principal captured this notion of interpreting the portfolio collaboratively stating, "I see it as a celebration. There are always going to be individuals who need more encouragement and focus, but I see this as a good springboard for discussion." Conversations focused on portfolios and lived experiences of the teacher undoubtedly have tremendous potential for professional development, but also in building a professional culture to support self-reflection.

Consequences of Utilizing Portfolios for Professional Growth

It was postulated that consequences of this process would be manifested in two ways, namely at the individual level and the level of the organization. Each will be discussed in turn. An unanticipated, though important realization that was discussed during interviews focused on the extent to which one could relate a consequence as being solely the product of the portfolio process.

At the individual level (see Table 4), teachers commented, though not extensively, the portfolio process was effective in encouraging them to rethink their practice in practical ways. For example, many stated that they became more organized as a result of this process. As one teacher put it, "in the past, if someone asked me for something I would think 'where did I put it?' now I know exactly where things are... it's much easier than rooting through binders or drawers." However, it is interesting to note that the administration did not provide any feedback with respect to potential changes in practice (see Table 4). Supervisors stated they were consumed with ensuring the teachers accepted the process and that it was evolving in its own way. Perhaps at this early stage, changes in teaching practice were not a priority.

Enhanced learning about oneself as a teacher and about one's practice was viewed by most, to be a direct outcome of the portfolio process. Both administration and teachers acknowledged that the process really highlighted the notion of lifelong learner. A teacher commented that, "this process makes me aware that I have to continuously engage in learning." Others were more specific in describing the academic learning they had achieved, for example with respect to Ontario's new language and math curriculums.

Table 4 Effects Matrix: Observable Outcomes by Participant Group

Outcome	Administration	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
Practice	NC	(+) A lot of teachers say they show their portfolios to their students. (+) It has really helped me to be more organized.	(−) I'm more creative than I thought I was. I started a drama club and often take pictures to add to my portfolio.	NC	NC	(−+) Through the goal setting exercise you come to see how you can make improvements in your teaching, i.e., use more hands-on activities vs. hand-outs. (+) I always like to be on the leading edge of things so I guess with experience you can take what's new and mix it with the old and come up with your own version.
Enhance Learning	(+) They have documented evidence of growth, this really affirms they are learning and growing. (−) It helps the teacher to better understand the process the student goes through.	(++) I think this process keeps me aware that I have to continue to learn, you know life-long-learner. (+-) The main goal is math to ensure everyone is learning the new curriculum.	(+) I've learned that I'm more artistic than I ever anticipated. (++) I think I'm more diverse, I always thought because I was teaching languages I didn't have an interest in anything else, but now I'm adding a math unit to my French class.	(+) It can be a good tool to show you how you are doing with respect to goal attainment.	(+) It is really good picture of what you have been doing over the course of time. (+) I'm much more organized, when the principal asks for something I know exactly where it is.	(−+) You can learn from others, and your students can learn from you. Often I say, "well this is what I did and it's easy."
Motivation	(+) Colleague responses on the peer response sheet were usually so positive it was like a real motivator.	(+) It makes you feel good to see that I have met my goals or am close to meeting them.	(++) I find it a great way to express myself and push myself to do more.	NC	(+) The items that are more positive are readily accessible so that every once in a while if you need a lift, they are there.	(+-) I don't think this process has changed my motivation towards growth, that's always been there. (+) It makes you feel a little bit better to see you've had growth in some areas.
Collaboration	(+-) We really encourage people to work together by giving them aids such as the peer response sheet. (+-) We work strongly divisionally, so we already have collaboration among staff.	(+-) We don't share the portfolio with our peers, only with the principal at our monthly meetings. (+-) We were given the opportunity to share with others, but we were caught up in student portfolios. (+) I have shared mine with a friend at another school, but on my own time.	(+) We often say to each other, "Oh that's a good one for your portfolio... its portfolio worthy", at first it was a joke but now it's quite serious.	(-) We've always been a close group to begin with, but we like to do our own thing.	(+) Somebody will say, "I couldn't find anything on this particular strand in math", and I say, "I found 2 good readings here I'll go and get you a copy."	(-) We haven't really shared our personal portfolios with each other.
Professionalism	(+) There's a real professional aspect to it, because I think many teachers don't move professionally once they get out, and you do need to have a scholastic understanding before you could implement a variety of things like student-led portfolios, you need to experience where it's coming from. (−+) You must instill in your teachers that you really believe they are professionals and that they want to grow professionally	(+) It helps me to document the professional reading I do.	(++) I thought if I wasn't going to a conference I wasn't getting adequate professional taken responsibility for my own professional development.	(+) It documents your professional reading and committee membership.	(+) It's a professional portfolio, so you're expecting people to use it for what it was designed for: professional growth and development.	NC

Legend:

++ = very effective
\+ = effective
+- = mixed effectiveness
− = ineffective
NC = no comment

Still others noted changes in learning at a more individual level. As one teacher put it, "I'm certainly more creative and artistic than I thought I was." Another stated, "it is important that I have learned about myself, but my kids are also learning from my portfolio experience." The implication here is that portfolio-based learning is directly influencing classroom behaviour in ways that students can observe.

Motivation is an outcome in which some could relate to the process, while others felt increased motivation towards professional development occurred not entirely as a result of the portfolio process, but rather one of several components of it. Administration felt that increased levels of collaboration had a positive effect in enhancing motivation. However, not one teacher related enhanced motivation to levels of collaboration.

The teachers felt their motivation for ongoing professional development stemmed more from the realization they had grown and the desire to maintain such growth. One teacher had a different conceptualization stating, "I don't think this process has changed my motivation towards growth... that has always been there."

Responses were mixed in terms of organizational impact; some directly attributed organizational changes to the portfolio process while others were more hesitant to do so. The administration believed that they had succeeded in fostering the development of a collaborative atmosphere prior to instigating portfolios, though they did indicate that when given the opportunity (i.e., use of portfolio peer response sheets), the staff responded with enthusiasm. As well, most staff members felt the collaborative culture of their school preceded the implementation of portfolios. In this sense the school's collaborative culture was likely to be a powerful influential antecedent variable.

In addition, the administration and three teachers recounted the positive experience of utilizing a peer response sheet. However, it was only used once. Most teachers stated that, "we were given the opportunity to share our portfolio, but we have been doing student portfolios so that is where the focus is." Another teacher reported, "we have not really shared our contents with our peers, but I know my portfolio has been on display at meetings the principal has been to. I haven't been there for that, but the material and our process has been displayed." Overall, the case school does not appear to have increased levels of collaboration due to their experience with portfolios. However, it seems likely that at least some organizational effects are at least indirectly explained by the portfolio process.

As an example, most indicated that this process was effective in enhancing levels of professionalism. Perhaps the most significant contribution has been to instill a sense of ownership for professional development and professionalism. As one teacher explained, "I thought if I wasn't going to a conference I wasn't getting adequate professional development, but now I've taken responsibility for my professional development." This quote serves to demonstrate that, for this teacher, the portfolio process went beyond performance appraisal to deeper levels of growth, thereby indicating the potential of teaching portfolios to be a really powerful mechanism. Others stated the portfolio was a great way to document the professional reading they did.

CHAPTER 6: DISCUSSION

Upon consulting the relevant literature concerning teacher portfolios, one quickly becomes aware of the lack of empirical research in this area. Many, many authors are quick to espouse the virtues of using portfolios to stimulate professional growth and development, despite the lack of available supportive evidence. Despite this lack of research, interest in the topic is flourishing. Numerous schools have begun pioneer efforts to implement teacher portfolio processes. The following discussion 1) acknowledges the limitations of the study 2) provides a summary of the dominant themes that have emerged in the data in association with the three main research questions, and 3) discusses considerations as to the contributions of this research and its implications for future research.

Limitations of the Study

Permitting the principal to obtain volunteer participants, who may possibly be biased in favour of the process, must be recognized as a deficiency in the study's design. However, to help offset such bias repeated attempts were made to probe teachers for negative comments and/or information. Another limitation is the lack of information the researcher was able to obtain concerning individuals with dissenting opinions towards the portfolio process. Thus, not wanting to make participants feel uncomfortable or fear reprisal, the researcher respected their wishes not to engage in such conversations. Clearly, this is an area to be further explored with explicit letters of informed consent and carefully prepared interview guides. Overall, another round of data collection would have been useful to probe for further information to flesh out some remaining questions,

especially pertaining to dissenting opinions. However, the extenuating circumstances alluded to in chapter 3 would not permit additional teacher release time.

Given the exploratory nature of the study the level of confidence one might put in the conclusions may be questionable. In this study the researcher made every attempt to provide for relatively thick descriptions in the data displays and written text in an effort to portray the data accurately and thoroughly. The interpretations offered here are her own, but the reader who wants to consider alternative interpretations is permitted to do so as a result of such thick description.

Another concern is that instrument validity and reliability ride largely on the skills of the researcher. To alleviate this issue the researcher made a systematic attempt to become familiar with the phenomenon under study by engaging in an extensive literature review prior to conceptualizing the study. Also, the interview guide was pilot tested with school system personnel in a neighbouring board.

In an effort to avoid employing a narrow focus, the researcher utilized a conceptual framework that allowed for emergent themes. Nonetheless, the heavy use of this framework in guiding data collection, analysis and interpretation may have limited the extent to which emergent themes appeared. Finally, the researcher possessed good "investigative" skills and was able to draw people out, while at the same time being able to ward off premature closure.

Despite the fact that this study's design will not permit the creation of generalizable knowledge, the rich detail concerning the process and its consequences are offered as a basis to inform research and practice.

Main Findings

The principal findings of the study are summarized under the three research questions guiding the research.

Conditions/Factors Influencing the Process

Since work in this area is in the experimental stage, and there is relatively little empirical evidence to help inform practice, most attempts at implementation are guided by trial and error strategies. The school described in this study proved to be no exception. However, despite the lack of available resources, the administration managed to implement the initiative effectively engage teachers into using this process.

The effort at this school was undeniably supervisor-led, as such this had implications for the implementation and ultimate process that evolved. It was immediately apparent that this dominant administrative team was the driving force that was keeping the process "alive". This became evident with virtually all sections of the interview. Teachers reported that they wanted to use "[the principal's] plan", and described how "she suggested we do it this way". Teachers themselves would comment that if, "she did not initiate this process we would probably only give it a passing thought."

Another important issue that emerged from the interviews was the notion of the portfolio informing the teacher's formal assessment. Despite assurances that the portfolio was to be used for professional growth, many still alluded to the fact that the portfolio would help with their formal assessment as part of the board's performance appraisal standard operating procedures. This was especially true for the teacher still on a probationary contract and a teacher seeking a future promotion.

Thus, in essence this school had two systems operating simultaneously: a formal assessment strategy grounded in principles of accountability and judgment for personnel decisions and a portfolio process aimed at encouraging professional growth and development. The present data suggest that some teachers felt that, even if unstated, the two systems are not independent of one another. Undeniably, teachers were extrinsically motivated towards the portfolio process as it was initiated and heavily supported by the administration. Of interest, however, is that for some teachers it moved from extrinsic to intrinsic motivation, with one teacher stating she now felt as though she was taking ownership of her professional growth.

The importance of this observation cannot be overstated as several authors have observed that processes designed to enhance professional growth are most effective when they are clearly separated from administrative/personnel decision making (Cousins, 1995; Duke & Stiggins; Popham, 1998). Perhaps if teachers collaborated more in the planning and subsequent implementation stages of the portfolio process, they would undoubtedly feel more ownership in the process and be less sensitive to the evaluative aspects.

However, it must also be stated that a host of other variables were at play during the implementation stage. Administration recognized the importance of implementing the portfolio process with conducive conditions in place. For example, a relationship of trust must be established between the teaching staff and the administration before teachers could realistically feel secure that personal/professional risks were minimized. In addition, the administrators appeared to have worked extremely hard to promote and sustain a culture of collaboration among staff.

Also of interest were the self-reported anxiety levels by the teachers' implementation of this process. Virtually all the teachers except for the probationary teacher reported feeling some apprehension about the process, if not due to the overlay with the board performance appraisal policy, due mainly from a fear of the unknown. On the other hand, the new teacher reported that she felt the process was not of concern to her since she had been exposed to it in teachers college. Perhaps with greater staff turn-over and younger teachers entering the schools -- as is presently the case in Ontario -- portfolio implementation efforts will not only be approached with less apprehension but will be better informed by staff knowledgeable of the process.

Portfolio Process

Moving into the process stage, another important theme came from questions about modifications to the process. Virtually every respondent described his or her experience as a living process; one that evolved as time progressed. Not surprisingly given the relative novelty of this approach to professional development, the literature was extremely vague in offering time frames for the portfolio process. This being the fourth year of "experimentation" at the case school, both staff and administration spoke of portfolios as an ongoing process, but clearly stated that the first year was the most difficult. There are lingering concerns about the apparent lack of standardization surrounding both the implementation and selection criteria for this process. However, one must question if there is a need for such standards in a process that is highly situation specific and intended to be uniquely individual. This individuality of the process contributed to another dominant theme concerning multiple uses.

It was apparent that each teacher shaped the process to best suit his or her needs. For example, one teacher described it as a means showcase her work for a potential promotion. A probationary teacher explained how her portfolio was a good way to document her abilities to the administration. Yet another, veteran teacher told of how she was preparing her portfolio as a memorabilia collection of her teaching years.

This distinction among teacher experience that has been cited elsewhere (Bosseti, 1996; Cousins, 1995) as being predictive of level of commitment. Specifically more experienced teachers are more apt to avoid or disengage with such processes. In addition, the more veteran teachers appeared more willing to share their anxieties regarding the implementation of the process. This point is interesting in the sense that perhaps such a process does not suit everyone's individual approach to professional development, which begs the question as to whether the administration mandating that everyone engage in the portfolio process is in contradiction with the underlying philosophy of individuals taking control of their own growth and development (Tracey & McNaughton, 1989).

The excessive amount of time it requires to engage in the portfolio process has been cited in the literature as being perhaps the biggest complaint from teachers (Bosseti, 1996; Wolf, 1991). Yet, teachers in the present study overwhelmingly agreed that the single biggest complaint was not the time required, but what to put into the portfolio. Teachers felt that the lack of criteria and guidelines created ambiguities and confusion. While such practice provided them with considerable flexibility and enabled them to suit the portfolio to their own growth goals, teachers apparently would have preferred more structure and direction regarding selection. Perhaps such limits on structure can be traced to the lack of available resources (especially time) administrators were able to acquire at

the time of implementation. Also, it is interesting that teachers did not report much resistance to the innovation, possibly because there was already a strong professional development orientation.

These data are consistent with a collaborative orientation toward the use of portfolios for professional development. While the neo-progressive perspective espoused by Tracey and McNaughton (1989), among others, provides for ample flexibility and complete control by the teacher, the call for administrator input and structure was clear for virtually all teachers regardless of career stage. Thus, this reliance on more supervisor input is more consistent with the neo-traditional orientation subscribed to by Hunter (1988). Perhaps this school is managing to achieve some type of middle ground between these two extreme supervisory paradigms.

Consequences of the Portfolio Process

Probing for the impact of the portfolio process became somewhat difficult in the sense that some process variables could be identified as potent in leading to change, whereas others were deemed to be more of a contributor along with a host of other intervening variables. Nevertheless, some notable consequences were observed in the present study.

At the individual level, learning was clearly articulated as having been a result of engaging in the process. Teachers felt strongly that the portfolio was a credible tool to enable them to document, over time, the growth they had achieved in terms of their individual pre-set goals. Increased motivation towards professional development was viewed as part of engaging in the process. For example, teachers recalled feeling "better" about themselves as a result of reflecting on the record of their growth.

Such consequences, which are tied to participation in the process, have been observed previously in the performance appraisal domain (Cousins, 1988) and more recently in the broader program evaluation literature. Authors such as Patton (1997) and Shulha and Cousins (1997) use the term 'process use' to connote such effects which are thought to be independent of evaluation findings. In the case of portfolio use, it seems likely that these cognitive and affective effects might be process dependent and independent of portfolio content.

Administrators in the sample were not able to provide information with respect to the notion of the portfolio process stimulating individuals to rethink their teaching practice. Similarly, the teachers themselves did not elaborate on any extensive changes to practice, although some comments on minor changes they had made. Overwhelmingly, teachers stated that they first had to feel comfortable with the process before they could make changes to practice. Undeniably, this point relates to the time, commitment and support required to implement such a process, along with the realization that this must be a dynamic process that evolves with the users needs.

At the organizational level, the most interesting finding concerned the notion of collaboration. The administration stated they felt the process definitely contributed to an increase in administration-staff collaboration, but also an increase for peer collaboration. Clearly, the administrative time and support given to ensure that monthly "debriefing" sessions took place points to the premium that the school administration placed on the process. However with respect to peer collaboration, one administrator provided only a single example (the use of the peer response sheet) of providing staff the opportunity to work collaboratively with respect to their portfolios.

As for the teachers, the majority reported that the process did little to encourage within-staff collaboration. However, when the opportunity was given (i.e., peer response sheet) the results were as one teacher put it, "extremely positive and motivating." One must then question why peer collaboration in interpreting and discussing the portfolios was not attempted more often. Perhaps this can be attributed to an administrative power issue or simply a lack of pre-set standards. Clearly, this is an administration who has controlled virtually every aspect of the process and one who is perhaps not willing to relinquish control of over the portfolio interpretation and analysis aspects, which are of course, the evaluative dimensions.

Another impact that was identified as being, at least partly because of the process, was an increase in professionalization. Administration and staff commented that the school was very much professional-development oriented prior to the advent of the teaching portfolios. However, the portfolios helped to document growth and development, thereby contributing to a greater sense of professionalism among staff. This finding is consistent with current attempts in Ontario, especially by the newly formed College of Teachers, to further "professionalize" the practice of teaching.

Study Contributions

The literature indicates that for teachers to grow as professionals they need feedback that encourages them to question, appraise, and reflect on their experiences. This study provides some justification that the portfolio process offers an innovative approach for teachers to achieve these ends through providing a vivid picture of who they are as professionals. By engaging teachers in the practice of documenting and reflecting on their teaching a professional culture can be fostered.

Admittedly, the process was one of trial and error as both administration and the teaching staff engaged in experimenting with this new strategy and tool. Despite, the many limitations of this study in creating generalizable knowledge, on a practical level the effort to detail the implementation, process and consequences of the portfolio approach to professional development strategy will aid subsequent users in their attempt to instigate a portfolio process of their own. This empirical study, although only a first try, will help to address some gaps and add to the knowledge base in the area. Thereby in a small way this study may help others to better understand the portfolio process, the conditions under which it is likely to be successful and the consequences that are likely to emerge from it.

Implications for Research

The present study helps to inform an agenda for ongoing research in this area, especially that of an empirical nature. More sharpened questions that have emerged are described in turn. As demonstrated in this study, there is a precarious balance that should be struck between the desire to allow for flexibility and individuality and the need to provide structure in the form of guidelines and criteria.

Further research could delve more deeply into the notion of portfolios promoting a collaborative culture within the school, both between administration and teachers but also amongst the teachers themselves. Perhaps if this process is executed in a more collaborative nature a consensus concerning this balance could be achieved before implementation efforts were executed. Following from this, it is estimated that having the teachers more involved in the planning and conceptualizing of the process they would

feel a greater sense of ownership in the process, thereby fostering more collaborative endeavours among staff.

More work needs to be concentrated on this phenomenon of "two systems" operating together, one formal and one aimed to promote professional growth. Others have questioned the precarious role the principal must play, on the one hand acting as the boss making judgments, but on the other hand helping to promote risk taking and engaging teachers in growth oriented activities. One must wonder if the principal finds himself/herself in a conflict of interest? On the other hand, do teachers know of the principal's true motives?

Also, as interest mounts and more schools engage in this process, one must question if the newer teachers previously exposed to teaching portfolios in teacher training programs will bring with them an increased knowledge base and, in turn, may help to better inform implementation efforts.

Additionally, it is doubtful that this process could be successful without strong administrative support and commitment. It would be interesting to document a situation in which it was the teachers who were advocates of this process. Can such a process be more fully aligned with the neo-progressive perspective? Finally, longitudinal studies employing qualitative methods needs to be undertaken to more closely document this process. Once sufficient evidence accrues, quantitative methodologies might be employed as a means to measure impact and provide a stronger basis for the production of generalizable findings. These are but a few of the directions future research could follow.

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Appendix A

Interview Guide

Teacher

Process

1. How were you first introduced to the concept of teacher portfolios? How was the process initiated here at _____?

2. Describe the planning phase of the portfolio construction process. Who participated? What sources of information were considered?

3. What goals for professional growth and development were developed? Who established these goals?

4. How would you describe the structure of the portfolio? Was the process implemented as planned?

5. How did you decide on the contents for the portfolio? What was the basis for content inclusion/exclusion?

6. Were there opportunities to reflect on your accomplishments? Describe. Who participated?

7. Were there any disadvantages or shortcomings to this process? What modifications would you make if you had the opportunity? Have modifications been made this year? Explain.

Conditions

8. How do you define professional development? Is the portfolio process consistent with your view?

9. Were your supervisors enthusiastic and supportive of this endeavour? Why/why not?

10. Were teachers generally receptive to the process? Why/why not? Explain.

11. Does the portfolio process fit with the way things are done here in the school?

12. Is the portfolio process consistent with the boards' performance appraisal policy? Comment?

13. Has the recent teacher political protest/school closures had an effect on the process? Please explain.

Consequences

14. How has this experience affected you?

-attitude toward professional development?

-contributed to learning about yourself as a teacher?

-developed a capacity for self-critique?

-contributed to changes in teaching practice?

-acted as a signal that professional development is occurring?

15. Have you observed any effects or changes within the school as a result of this experience?

-development of a collegial/collaborative atmosphere?

-professionalism?

Interview Guide

Administration

Process

1. How were you first introduced to the concept of teacher portfolios? Why was this initiative taken here at _____?

2. How did you (the administration) go about implementing teacher portfolios? Did you encounter any problems with implementation? Elaborate (e.g., teachers resisting the initiative?)

3. Describe the planning phase of the portfolio construction process. Who set the goals for professional growth? Was this process similar for all five teachers? How did it vary?

4. How was the structure of the portfolio decided? What resources were used to assist you with the decisions? (e.g., pre-developed guidelines)

5. How were the contents of the portfolio decided? What was the basis for content inclusion/exclusion?

6. To what extent were things implemented as planned? Why and how did plans change during implementation (variation among teachers?)

7. Were there disadvantages or shortcomings? Can they (or have they) be overcome? How?

Conditions

8. With respect to the five teachers involved in this study, does the portfolio approach suit their orientation to professional development? What level of experience do these individuals have? Describe. Why did they volunteer for this study?

9. Does the portfolio process fit with the way things are done at _____? Explain?

10. Is the portfolio process consistent with the school administration's orientation to leadership? Explain?

Consequences

11. What effects of the process have you observed? (variation among teachers?)

-increase in motivation towards professional development

-learning about teaching practice

-development of capacity for self-critique?

-acted as a sign that professional development is happening?

-change in teachers practice?

12. Can you see any changes within the school as a result of this experience?

-development of a collegial/collaborative atmosphere?

-development of capacity to question assumptions about teaching and learning?

Appendix B

Data Analysis Coding

Start Codes

Dependent Variable Codes

Conditions/Factors

Teacher Characteristics

Exper-T:	Teacher experience levels.
Motiv-T:	Teacher motivation to the innovation.
Port Conc:	Teacher concerns regarding the innovation.

Culture

Time:	Time permitted to engage in portfolio process.
Rsk:	Level of risk associated with engaging in portfolio process.
Cmft:	Comfort level (of teachers) to engage in process.
Util:	Teacher's perceived utility of the innovation.
Mng:	Teacher's perceived manageability of the portfolio process.

Leadership Characteristics

Exper-A:	Administrative experience levels.
Sup-led:	Innovation as supervisor-led.
Schol-Phil:	Philosophy of the school.
Lck-R:	Lack of available resources at time of implementation.
Supp-Comm:	Level of administrative support/commitment.

Accountability

Brd:	Board policy
Doc Gro-A:	[Portfolio process] as documentation of growth for accountability.

Background: Comments were recorded in a notebook for reference material.

Portfolio Process

Planning/Standards These variables were grouped together during analysis for in the sample school, they occurred simultaneously.

Struc: Structure

Goals

Estab:	Process of establishing goals.
Infor-Asses:	Informs assessment.

Contents

Dilem:	Teacher reported dilemma of content selection.
Mult-Use:	Teacher reported multiple uses for portfolios.
Uniq:	Descriptions of portfolios as unique for each individual.
Organ:	Portfolios stimulated teachers to become more organized.

Self-critique/Reflection

Mod:	Modifications made as process evolved.
Evo-Proc:	Teachers/Administrators describe process as evolutionary.

Impact/Consequences

Practice

Know-Trans:	Reported knowledge transfer from doing teacher portfolios. contributing to deeper understanding of the student portfolio process.

Learning

Prof-GrowL:	Teachers reported learning about themselves by being able to see the professional growth they had achieved.
Doc Gro-L:	Teacher's reported the documentation of growth contributed to learning about their practice.

Motivation

Resp:	Teachers reported being motivated to assume responsibility for their own professional growth.
Motiv:	Motivation for ongoing professional growth (teachers).

Collaboration

Collab:	Discussing the level of collaboration the portfolio process contributed to.