The study reported here investigated time as experienced and perceived by teachers who are actively involved in curriculum change and reform in their workplace. Three teachers--two secondary and one elementary--participated in the study. Interviews were designed to encourage these teachers to talk about how they manage and deal with educational reform and change. The phenomenon of time emerged as a general theme in all three interviews. Study data supported the notion that time is a scarce resource for teachers and that perceptions of time are embedded in the daily practices of teachers. By far the greatest number of references to time represented a monochronic, regulated and commodified view of time, though more flexibility was evident in the context of life in classrooms and with students. There were few references to chronological time and head time, and limited references to phenomenological or inner experiences of time. (Contains 25 references.) (ND)
FINDING AND SCHEDULING TIME: TEMPORAL ISSUES IN EDUCATIONAL REFORM

A pilot study related to research on

UNDERSTANDING TIME IN THE LIVES OF TEACHERS AND ADMINISTRATORS
WITHIN CONTEXTS OF EDUCATIONAL REFORM

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Finding and Scheduling Time: Temporal Issues in Educational Reform

PROLOGUE

The interviews that are analysed in this paper were completed as part of a larger study on educational reform. The study was designed to mirror a more substantial province-wide investigation that focused on the professional activities of teachers while implementing changes associated with the implementation of provincial reform as specified in the Transition Years and the Common Curriculum documents.

Several teachers in grades 7, 8 and 9 were interviewed for the present "shadow" study. The purpose was to document what a group of committed and dedicated teachers were doing with these reform initiatives. The interviews set out to describe how these teachers were dealing with outcomes, integration, assessment and other issues associated with transition years and Common Curriculum activities. Subsequently, it was hoped, that analysis and interpretations of these actions would result in a richer understanding of issues related to implementing policy reform.

As I began to read and re-read the interview transcripts it became clear that there were numerous ways to make sense of the responses. My own academic preoccupation with the phenomenon of time and educational change surfaced immediately. I was intrigued with the numerous references to time as an obstacle to change. Time was often viewed as a scarce resource and teachers indicated that there was little real time for planning and training. Implementation demands were perceived as unrealistic and failed to accommodate the complexities of classroom life. I became curious as to how time was allocated and what underlying purposes were conveyed by teachers' responses to time issues. More systematic consideration of time and reform seemed warranted.

Consequently, I decided to select three interview transcripts and analyze the comments related to time. The result is the present paper. The treatise presented here demonstrates the possibilities that emerge from analysing and interpreting one phenomenon only. I have made a deliberate effort to explore some of the related literature and present the findings as a complete case study so as to lay the groundwork for further exploration. The implications for daily life in classrooms are also considered. Clearly how time is used reflects the purposes and conceptions behind its use. There are practical and real consequences. Hopefully some of these become evident.

Without question there are other issues that will emerge from a comprehensive analysis of all of the interview transcripts -- issues that may be more immediate and that may have far-reaching implications for teachers. A further analysis that is grounded in the responses of the teachers, is currently being prepared. Hopefully, the present paper and the second forthcoming paper will enhance our understanding of the professional work of teachers as they face the challenges of educational reform as characterized by the implementation of the Transition Years and the Common Curriculum.
INTRODUCTION

Controversies, tensions and uncertainties characterize current education workplace practice. There are increasing expectations to do more with less. Within such an uncertain context there are particular teachers who stand out - teachers who are involved in visible, serious, sustained and committed change and who demonstrate a proficiency and expertise in dealing with daily experiences related to change. This study posits that these teachers hold a kind of personal practical knowledge and have certain perspectives and basic assumptions that enable them to make a difference in their workplace.

Originally, the aim of this study was to discover how these teachers were operating and to identify certain phenomenon that contributed to their success. However, during the conduct of the research project and when analyzing the transcript data later, it became apparent that issues related to time were sufficiently prominent to merit specific attention. Consequently, the research reported here considers the phenomenon of time as it relates to teachers' experience in dealing with reform and change.

Time affects everyone. It is part of the social ethos of our daily experiences. In education, time is often viewed as a commodity to be managed; it has organizational and economic implications. Organizational time is characteristically monochronic, future-oriented, compartmentalized and calendar based. This objective, physical notion of time is in contrast to a more subjective and situated view of time. There are, for example, a variety of circumstances, e.g., within classrooms and contexts of continuous change, where time is characteristically polychronic and directly linked to emotions and attitudes.

SIGNIFICANCE OF THE STUDY

In an era of limited resources educators will need to become increasingly responsible for developing and nurturing their own professionalism. Organizations that are concerned with
supporting communities of learners will need to encourage self-motivated creativity and empower educators to take responsibility for their own growth. Continuous learning is essential for developing the capacity to deal with change and reform. Fundamental to such learning are our understanding and use of time and a commitment to broaden our understanding of such phenomenon that impact students and their learning.

Understanding the personal practical knowledge of teachers who are involved in visible, serious, sustained and committed change can increase our pool of social knowledge. In particular, by understanding issues related to time, a complementary convergence between theory and practice is possible. Making the taken-for-granted experiences, perspectives and assumptions of these teachers more visible and problematic should influence other educators' thinking and acting.

**STATEMENT OF THE PROBLEM**

The purpose of this study is to describe how selected teachers experience and construct meaning of time. While the original intent of the research was to understand more generally the ethos of the daily experiences of teachers who are involved in visible, serious, sustained and committed change and who demonstrate a proficiency and expertise in dealing with change and reform initiatives, a more specific focus on one phenomenon only, that is, time, is documented here. Consequently, the only question considered in this study is: How is time experienced and perceived by teachers who are actively and productively involved in curriculum change and reform in their workplace?

**DIFFERING VIEWS OF TIME**

The rich perspectives that inform our understanding of time are only beginning to be applied within the educational landscape. The lack of attention to temporal issues in education stands in stark contrast to the long philosophical and scientific preoccupation with time.
There is no question that we live amidst change. Our idea of time has its meaning in change. Persons can analyze past changes through memory and formulate frameworks which, in turn, help anticipate future events. Time has both a concrete meaning related to experiences embedded in rhythms of nature and the more abstract concept of moments of change for individuals and societies. In this later respect, the history of time is inseparable from philosophy and the history of human thought. As Schein (1985) indicates: "every culture makes assumptions about the nature of time and has a basic orientation toward the past, present, or future" (93).

The paradox of time is captured by St. Augustine (Westphal & Levenson, 1993) in the following passage:

But where does time come from, and by what way does it pass, and where does it go, while we are measuring it? Where is it from? - obviously from the future. By what way does it pass? - by the present. Where does it go? - into the past. In other words it passes from that which does not yet exist, by way of that which lacks extension, into that which is no longer. (p. 20)

Grappling with the implications of this paradox is surely one of the dilemmas confronting teachers in a context of reform and change.

Time may be viewed as a perceivable succession of changeable objects and as such is connected to the notion of duration. Time can also be linked to our inner experiences and subsequently connected to our thought; personal duration is thus applied to events external to our own experiences. Time is intricately connected to change which implies a succession of phases in a process. Such succession implies the existence of temporal intervals that are more or less durable.
Assuming that individuals respond in different ways to temporal conditions, Fraisse (1963) explores three main types of reactions that represent levels of adaptation: conditioning to time, perception of time, and control over time. Conditioning to time is biological and enables harmonious response to the periodicity of changes going on around us. Perception of time occurs as we comprehend with simultaneity several successive phases of change. The ideas of order, duration and present and their relationship to the nature of what is changing become integral to our perception of time. Control over time is facilitated by our representations of successions and durations associated with changes; by these we acquire a past and future and a temporal component to every action. His major thesis is that how individuals adapt to the succession, duration, rhythm, order and pressures of time shapes their very being.

Fraser's (1975) notions of "knowledge felt" and "knowledge understood", that is, passion and knowledge, provide a useful perspective for understanding existential tension and continuous, unresolvable struggle and conflict. Positioning time and the temporal aspects of individuals in a context of emerging and unresolvable conflicts that have both an emotional and cognitive dimension has potential for examining change in an educational milieu.

Our experiences of time inevitably conflict with the consciousness of others. Aguessy et al. (1977), for example, suggest that our understanding of time and temporal properties is intricately linked to language, imagination, cultural stories and our assumptions about reality. They too identify duration and sequence as basic features of time. Recognizing that attitudes to time vary within and between cultures and that cyclical time is consonant with periodical rhythms of nature, the authors connect time to our very existence. They remind us that the nature of time and the nature of the soul are linked to the ontological paradox of the vanishing NOW; time becomes an ontological moment, an existential, in our life.

Hall (1983) captures the passion and excitement about time. He posits a mandala which
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maps the different kinds of time and paradoxical relationships. The spectrum of different types of time considered include: biological time, personal time, physical time, metaphysical time, micro time, sync time, sacred time, profane time, meta time. Then, using life experiences from the Navajo and Hopi, Hall explains the meaning of monochronic and polychronic time - frequently used in education to differentiate administrator and teacher views of time (see Hargreaves, 1994, pp. 99-106).

Time as experience is the personal and phenomenological dimension of time. Concepts such as time passing and time dragging, compression and expansion of time, concentration and time perception, imagery and time, age and time, mood and time, emotions and time, real time and time as mediated by space are amply considered as different experiences of time. For Hall (1983) the "dance of life" becomes a meaningful metaphor when he focuses on the rhythms, synchronicity and pacing of interactions among people. Entrainment (when two individuals become enmeshed in each others rhythms and synchronicity) is explored and offered as an explanatory device for making sense of behaviour in social settings.

The enlightening work of Lakoff and Johnson (1980) captures the metaphorical commodifications of time. Time is viewed as a limited resource that is "progressively 'used up' and assigned monetary values" (1980, 66). They illustrate how metaphors such as "time is money" are embedded in our daily interactions. The more recent work of Lakoff and Turner (1989) extends the metaphorical dominance of time in our lives. A wider range of metaphors are attributed to time -- time is a changer; time moves; time is a pursuer. Clarifying the time as a changer metaphor, Lakoff and Turner argue that "when we view time as a thief, a reaper, a devourer, a destroyer or an evaluator, we are viewing time generally as a changer and adding further information to characterize the nature of the change" (43).

Giddens (1984, 1987) provides a cogent exploration of time and space patterns. Time as
a commodity -- a resource to be used, consumed and invested -- is posited as a dominant feature of our society that is reflected in the time-tabled structure and organization of schools. From this perspective the objective and clock dominated view of time becomes a necessary organizing device in schools. In other words, time is a regulator. Giddens also suggests that the time and space patterns of staff and students in schools characterize power relations.

Prisoners of Time, A Report of the National Education Commission on Time and Learning (1994), is one of the most recent treatises on issues related to time and education. This report attempts to break the shackles of time by challenging traditional and accepted timetables and scheduling practices. While not escaping the notion of time as a limited resource, every effort is made to broaden awareness of how best to "harness" time via strategies that increase instructional and learning time by opening traditional time barriers. Suggestions include focused academic learning time, longer school days, year-round schooling and increased access to learning through the use of technology.

Time is not a new concern in education. Time related concepts such as time on task (Carroll, 1963), mastery learning (Bloom, 1976), and opportunity to learn are but a few of the notable efforts to resolve the impact of time on learning. A recent publication by Ben-Peretz (1990) provides a superb overview of time in the context of schooling. One noteworthy contribution in her book is the notion of time in transition, that is, the evolution from student-teacher to teacher and from teacher to principal. The struggle to explain transition by positing the conceptual relationship of a "working unit" as a function of time, space and content is intriguing and merits consideration. Also, the seminal work of Clandinin and Connelly (1986, 1995) reminds us of the cyclical temporal structure of schooling; they illustrate the importance of cycles in curriculum planning and the rhythms involved in the teaching enterprise.

Cambone (1995) provides another synopsis of different kinds of time for teachers...
involved with school restructuring. His treatise examines some useful theories about time: the construction of time, e.g., technical-rational time, phenomenological time, cyclical time; time as a variable in learning and teaching, e.g., learning time, curricular or instructional time; political time; and the multiple meanings of time for teachers, e.g., time for students, time for teaching, time for learning, time for innovation, managed time, administrative time, cyclical time, political time, experienced time.

The importance of time in administration is captured by Watkins (1986) who proceeds to question the taken-for-granted perceptions of time frequently held by administrators. One of the few pertinent writings on time and administration, this monograph criticizes the commodification of time and the technical-rational view of knowledge which it represents.

After traversing the landscape of change, the malaise of modernity, and paradoxes of postmodernity, Hargreaves (1994) considers four dimensions of time and their implications for teachers' work. The first dimension is technical-rational time - "a finite resource or means which can be increased, decreased, managed, manipulated, or reorganized in order to accommodate selected educational purposes" (p. 96). Since more time or how time is scheduled is no guarantee of educational change, other notions of time are important. The second dimension is micropolitical time. Here the focus is on issues related to power and status. The notion of teachers' work being classroom work and time outside of the classroom becoming a competing status claim are examples of the discussion of issues having micropolitical significance. The third dimension of time is phenomenological time. This subjective lived time comes alive with the integration of Hall's concepts of monochronic and polychronic time-frames into the explanation of phenomenological time. The implications for administrators and classroom teachers when implementing programs, for example, illustrates the different perspectives of time. Finally, the fourth dimension of time, that is, sociopolitical time is introduced. Here two novel concepts are posited - separation, based on an analogy of Hawking's (1994) description of
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physical properties, where time moves more slowly the further one is away from the classroom and colonization where administrators use teachers' time for their own purposes.

Educators require many kinds of time; they often construct and make meaning of time differently. Existing structures, however, frequently limit meanings of time. Since the rhythms of schools and educators are interlocked, it is important to: set aside special time for planning; review the cyclical nature of time in a school before making changes; maintain teaching time as sacred time; find time to learn new skills and ideas; and ensure administrators are aware of their monochronic view of time viz. the polychronic framework in classrooms.

**METHODOLOGY**

**Sample**

Purposeful sampling (Lincoln & Guba, 1985; Patton, 1980) was used to select three teachers to participate in this study. The intent was to include extreme cases that would then provide enlightening information about their experiences and ideas about dealing with reform and change.

Initially, colleagues within the Program Services Department of the Simcoe County Board of Education were asked to identify one or two grade 7, 8 or 9 teachers who, in their opinion, were involved in a serious, sustained and committed way in the implementation of curriculum reform. The purpose was to identify teachers who demonstrated a proficiency and expertise in dealing with daily experiences related to change in either of these grade levels. Three teachers from these nominations were then approached and invited to participate in an interview.

There were two secondary school teachers, Norma and Jane, and one elementary school teacher, Michael. Norma has 16 years teaching experience -- she had one year at FEUT, three years in an elementary school and the remaining 12 years at the high school level involved
teaching grade 9 students. After returning from a nine year hiatus from teaching, Norma became actively involved in numerous school, board and community committees and became the Transition Years co-ordinator for her school. Jane has 23 years teaching experience, all involving grade 9 students. She is actively involved in provincial initiatives related to music education and has developed an integrated arts curriculum to support the Common Curriculum initiative in her school. Michael has been teaching for 14 years and has been working with intermediate level students for the past 11 years. He has been actively involved in implementing Common Curriculum initiatives related to integration, broad based technology and student assessment.

**Data Collection**

Qualitative interviews were a feature of the study (Kvale, 1996). A phenomenological orientation was used to focus on the experiences of the teachers. One interview of about sixty minutes was completed with each teacher -- giving each person sufficient time to explain how they manage and deal with curriculum change and reform. Since limited time was available for this study, an interview schedule developed for an OISE transfer grant study (Hargreaves and Earl, 1995) was used as a general guide for the interviews. The intent was to have each individual tell their own story about their involvement with curriculum reform and change.

Bracketing the taken-for-granted concepts of time during the interviews enabled clarification of the ethos of the workplace experiences of the teachers. In other words, interviews focused on the day-to-day activities of teachers as they engage in serious, sustained and committed efforts to deal with curriculum reform and change.

**Data Analysis**

While no specific questions were framed in advance to deal with the phenomenon of time, it became apparent that this was one of several phenomena that emerged during the
interviews and in subsequent analysis. In other words, without prompting, these teachers commented about temporal issues and offered their opinions about time. Subsequently, a decision was made to examine the phenomenon of time more closely.

All interviews were tape recorded and transcripts made. The interview transcripts were analyzed, in conjunction with the audio tape, for major themes and sub-themes. Idea units were identified and key concepts identified as suggested by the constant comparative method (Glaser & Strauss, 1967). It was at this point that there appeared to be sufficient transcript data to merit a particular focus on time. Consequently, the analysis of these data was narrowed to consider idea units and concepts about time. Appropriate categories related to time were then constructed.

Limitations

Participants were selected from one school district in Ontario. Although this jurisdiction includes an urban/rural mix and is a large school board (approximately 53 000 students), the range of students found in city and rural school districts throughout the province is not represented. As a result, certain problems and resources that might characterize other situations may not be considered. Furthermore, within this context no attempt was made to select a random sample nor apply criteria such as validity and reliability that are commonly associated with more traditional research. Since all human knowledge is socially constructed knowledge, then it is problematic and somewhat indeterminate. Consequently, other foundational criteria such as trustworthiness and credibility guided the research process.

Ethical Issues

There is a number of procedures that must be followed when doing educational research. Although formal approval was not essential, the board's Educational Research Advisory Committee was advised that the study was being undertaken. Also, since the nature of the present study involved working directly with individuals, an effort was made to ensure that they
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were fully informed of the purpose of the study and that their rights as participants were protected. Concerns such as no harm to participants, no deception, confidentiality, full and frank disclosure, impartiality, risks associated with publication of research findings, and professional research responsibility were discussed with each individual. While no formal letter of approval or signed consent form were involved, there was general understanding of ethical issues and protocol. In other words, informed consent, and other ethical issues, were addressed through respectful communication and collaboration between the researcher and the participants.

FINDINGS

This study is concerned with one facet which arose from the interviews with three teachers, namely, their experiences with and perceptions of time. The interviews were originally designed to encourage these teachers to talk about how they manage and deal with educational reform and change. While the phenomenon of time was not a focus of the interviews, it was a general theme that emerged in all three interviews. The general pattern of responses related to time is presented for each teacher.

Norma is a teacher who has always been involved with educational innovations and change initiatives. In the early 1980s she was one of several key educators who developed and implemented a Human Relations program in all schools throughout the Board. Unfortunately, the controversy and stress associated with that project, along with the birth of her child prompted her to take a nine year break from teaching. So, consequently, when she returned to teaching approximately six years ago, Norma had missed the secondary school reform initiatives associated with the implementation of OSIS during the 1980s.

Norma returned to teach grade 9 students in the same high school that she had left. Eager to participate actively in the life of the school, and not inhibited by OSIS initiatives, she accepted the position of Transition Years co-ordinator. Having missed OSIS, Norma soon realized that

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she “was able to move on easier this time than most other staff”. After one year as co-ordinator, her principal gave Norma “a period of time each semester for planning”.

With the advent of the Common Curriculum and outcomes based education and “the need for expanded opportunities of time”, Norma expressed concern that the existing semestering structure wouldn’t be suitable. She describes one effort to overcome the shortcomings of existing school organization:

So we set up a structure that I think has been fairly successful that we call a family resourcing team. We split those groups into four, so you basically have 90 to 100 students who become a family and who stay together for part of their day and also for two semesters.

In her opinion, many teachers have a mindset about how teaching should occur. And, this way of thinking has been conditioned over time by the existing contract. She explains:

... people believe that the contract says that I can have my 90 students and that’s all I can have and I can teach so many minutes and that’s all I can teach. And, if you say ‘we are going to give four of you 100 students and two hours for teaching them’, well, that simply blows their mind to figure out.

Acknowledging the importance of and supporting the use of flexible time was a critical teaching strategy. For example, Norma strongly encourages students to work in the community. As might be expected this usually involves students going outside of the school. In one instance, students met with the Director of the local Women’s Shelter in class and then “several times on their own schedule outside of class”. On the other hand, “quite often they’ve brought their community resource people into school at lunch period or after school. Or, I’ve had to give them some ‘badminton time’ to meet because that’s the only time available”.

There were two additional references to time during the interview with Norma. In one instance she was talking about students helping each other in a peer tutoring manner. She comments: "I think that this enhances their learning, not all the time, but there are times when it is the best way for them to learn". The other reference to time related to conferencing with parents. Advocating more contact and communication with parents, Norma also acknowledged that while she lived in the local community many other staff lived substantial distances from the school. "So, it's easy for me to say 'yeah' I'll come out in the evening. But, I still think we need to accommodate the work schedule of parents".

Michael has always found teaching to be an enjoyable and rewarding career. While not involved in board-wide committees or educational projects outside of his school, he has constantly tried to be on the leading edge of curriculum initiatives within his school and particularly in his own classroom. While he is not especially fluent with the language of outcomes based education, he does support and implement many of the Common Curriculum principles. Integration, broad-based technology, a variety of instructional practices, and a range of alternative assessment strategies are daily features of the program in his classroom.

Without prompting, Michael identified time as a major concern and obstacle. He explains:

I see time as the big concern to implementing the Common Curriculum -- whether it's timetabling, whether it's planning and organization. Time seems to be the big issue for teacher in-service. It's the theme that runs through everything when you are trying to do integration.

Deciding how much time is devoted to teaching certain topics was a constant worry. And, making this decision was compounded by the fact that students completed similar projects year after year. "... if they build bridges in grade 2 and then again in 3, 4, 5, and 6, then by the time
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they get to me they really don't want to look at bridges again". How to use "class time" productively is a daily challenge. Michael continues: "... we are struggling. Time seems to be one big thing. There's going to be a major shift in how we use our time and how that time's spent with the kids -- and even what the kids do with their own time".

Finding time to do planning and to have regular conferencing with students and parents was also a problem for Michael. For example, "most of our planning time is generated through FSL time. Sometimes we have to put the SERT teachers in the classroom". In other words, more creative ways to find time are needed. As he wistfully comments, "I mean you are taking everything home and you are working until midnight". Michael also indicated that "a lot of time in September (is spent) just sitting down and discussing" expectations with parents. And, later if there is a problem "we call home and explain the situation so it doesn't go on for a long time".

Time is a precious commodity during class time, especially when trying to provide individual support for students. "If you take time with one, there are 30 others. And, of those 30 kids, there are going to be at least five of them that are going to be off track doing something else that requires your attention".

When asked to clarify some of the obstacles to implementing the Common Curriculum, Michael replied, "It doesn't matter what it is". He explains: "Time is money. I still think the biggest thing there is - is time. How people manage it, what we do with our time, how we find planning time -- no matter how you want to look at it".

Jane's passion and expertise is music and education in the arts. She has been actively involved in provincial music educator groups for the past several years. It was here that she became aware of outcomes based education, attending an international conference on the topic. The importance of this initial exposure to the Common Curriculum and the underlying
assumptions was a valued opportunity that supported her own school based activities. She explains: "I knew it was coming a long time before it was actually something we had to do in school. The lead time was extremely important for my planning".

Jane's hope is "that as time progresses, I think in the Arts we will really get it all integrated". She continues, "We are doing as much as we can do in the time we are given. And we are going to experiment with it again next year. Hopefully we'll get it perfected".

Planning for integration has required a lot of thought, resourcefulness and effort. Jane explains, "It's taken a lot of head time. You know, just trying to sit down and coming up with these integrated units to give meaning to that whole concept". In practice, this means that flexible time is important. For example, "We really have (the possibility of using) two periods. If we had a guest artist in and it's gonna take two periods, well, we'll just ask the Phys Ed. people to release the kids. And, if they want to take them another day, say, for a hike, well, the same thing applies, you know".

The notion that learning time varies from student to student was also acknowledged by Jane. Referring to the outcomes perspective, she indicated that all teachers needed to understand that not every student would achieve the outcomes at the same time. In other words, "some kids are gonna reach the outcome after two months and some kids are going to reach that same outcome, and do it just as well, but it's going to take them five months".

Jane's passion for music and the Arts was evident in how she talked about students. A few such comments that included a reference to time are worth noting. For example, practice time was mentioned. "Every time the kids practised and performed they just got better and better. They were so excited". Similarly, the idea of time as commitment was cited as an identifiable result of the Arts program. She explains, "I think we've helped kids develop commitment and,
you know, being there on time and getting to leave on a certain time -- meeting certain deadlines also".

In Jane's opinion spending "a lot of time working with our teachers as a team" was critical to making integration work. On the other hand, "there are still many teachers and parents who haven't changed and it will take a lot of work and time to sort it out. And, by the time we do there will be other changes". Interestingly, Jane went on to clarify, "it's more a way of thinking than it is chronological age".

Jane perceived time as the "biggest obstacle" to integration and implementing the Common Curriculum in the secondary school. "We need time to sit down with our colleagues and sort of hash things through". She continues, "You can't expect to get the miracle solution. It takes time and you have to adapt it to the situation that you're in".

**DISCUSSION AND CONCLUSIONS**

Giddens (1984, 1987) refers to time as a commodity - a resource to be used, consumed and invested. The report of the National Education Commission on Time and Learning (1994) singles out traditional timetabling and scheduling practices as obstacles to learning. And, Hargreaves (1994) discusses technical-rational time, that is, time as a finite resource that can be managed and manipulated.

In each of the three interviews there is evidence to support the notion that time is the very exemplar of a scarce resource. Schools do, indeed, operate within the precise economy of time. According to Lakoff and Johnson (1980) and Lakoff and Turner (1989), this commodified concept of time also can be found in a variety of metaphorical expressions such as:

- time is money
- I need more planning time
there's going to be a major shift in how we spend our time
time is opportunity
you have to manage time
it takes time
I never make enough time

In other words, by acting as if time were a limited resource, so too do we perceive it in that way. And, we understand and experience time as a commodity that can be wasted, saved or used wisely.

The interview transcript data do indicate that perceptions of time are imbedded in the daily practices of teachers. Even more striking is the fact that these data emerged during the interview without any specific prompting, thus indicating that time is one issue foremost on the minds of teachers.

By far the greatest number of references to time represent a monochronic, regulated and commodified view of time. There were, however, glimpses of a more polychronic, flexible and personal dimension of time. This occurred the closer the discussion got to life in classrooms and with students. At this level, the pacing of interactions among individuals and the flow of activities seemed to convey a different construction of time -- one that represented the rhythm of learning in motion.

Even though Michael viewed time as a resource -- something that cost money and that was in limited supply -- there was a distinct portrayal of class time being a struggle. A place where being conditioned to existing time structures clashed with efforts to control time for the benefit of students and learning.

While references were made to chronological time and head time, these were few. The
transcript data contained limited references to phenomenological or inner experiences of time. While the transcript data did reflect the commodification and regulatory dimensions of time, other dimensions were not well represented. Perhaps there was insufficient opportunity to progressively focus and develop these and other ideas related to time.

Finally, it is worth commenting on the language of time. Our language is rich with words that convey duration and sequence and conditional time. Words and phrases as simple as now, then, since, sometimes, when, minute, hour, period, semester, and on and on, dominate the literary landscape. Analyses of interview transcripts may pay slight homage to these cursory clues. They do, however, open doors for subsequent discussion and clarification for the serious researcher pursuing the often illusory and ambiguous phenomenon of time.

**REFLECTIONS**

The following comments are posited as personal reflections on this research study. They appear in no particular order.

* This research study served as an excellent pilot for the research that I intend to pursue for my dissertation. It focused my interest on time and educational change and gave me an opportunity to listen to teachers' experiences and perceptions about a number of issues related to educational reform and change. It also provided me with feedback about issues related to the design and methodology of subsequent research.

* I was particularly surprised and delighted to discover the substantive number of idea units about time that emerged during my analysis of these qualitative interviews. Since the interviews did not specifically address the phenomenon of time, it was reassuring to see that teachers do, indeed, consider it to be an issue of importance.
There was merit in having an interview schedule with a series of open-ended interview questions. Initially I was concerned that such an approach might be somewhat prescriptive and possibly imposing, particularly for an approach that was clearly interpretative/qualitative. And, while a great deal of care is required in developing these questions, having such a schedule assisted the interview process.

The opportunity to interview these teachers a second, and possibly a third time, would allow some of the ideas and concepts to be explored more fully. This progressive focusing should result in even further clarification and understanding.

In these qualitative interviews I attempted to use a phenomenological perspective that focused on the experiences of the teachers. The notion of the interviewer bracketing certain phenomena during this process does, I believe, have merit for the first few interviews. However, if the intent of the study is to pursue further the understanding of a phenomenon such as time, then I think it would be useful to follow these interviews with a series of phenomenographic interviews. In other words, the interviewees would now be asked to focus specifically on certain phenomena. The phenomena are no longer bracketed, but instead become the object of the research.

While it became clear that interviewing three individuals enables some triangulation to occur, I still think it would be valuable to include some onsite observation or other sources of data. In my own dissertation proposal I do think complementary collaborative action research will serve to enrich our understanding of a phenomenon such as time.

The developing literature about time in schools does seem to fit the experiences of these teachers. What seems to be missing, however, is an initial openness to talk about the power relations implied by superimposed timetables and time structures. In addition, the
limited disclosure of personal and meaningful time experiences suggests that an extended and more focused critical discourse is required.
REFERENCES


