Reflections on University Learning:
One Group's Experience

Centre for Newfoundland Studies

Total of 10 Pages Only
May Be Xeroxed

(Without Author's Permission)

Heather White
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA

UMI
800-521-0600
The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

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

0-612-42460-X
Reflections on University Learning: 
One Group's Experience

Heather White, B.A. (Honours)

A thesis submitted 
to the School of Graduate Studies 
in partial fulfillment of the requirements 
for the degree of 
Master of Education

May 1999 
Memorial University of Newfoundland
# Table of Contents

Abstract 5

Chapter One  
**The Age of Lifelong Learning** 6  
- Adult Learning Demands 7  
- Forums of Adult Learning 10  
- Reflections on Andragogy 11

Chapter Two  
**Educational Framework** 15  
- Views on Teaching 15  
- The Learner’s Perspective 22

Chapter Three  
**Research Design** 27  
- Focus of Inquiry 27  
  - Purpose 28  
  - Research Questions 30  
  - Research Sample 30  
- Methodology 31  
  - Phases of Heuristic Research 33  
- Method 37  
  - Data Collection 37  
  - Reflection Training 39  
  - Participant Instructions 40  
- Context of this Learning Experience 43  
  - Graduate Teaching Pilot Program 43  
  - The Educational Psychology Class 45  
- Data Processing 49  
  - Guiding Principles of Analysis 51  
  - Notes on Interpretation 53

Chapter Four  
**Perspectives on this Learning Experience** 56  
- The Learner’s Perspective 56  
  - Transcript Themes 57  
  - Predetermined Code Categories 58  
  - Emergent Code Categories 59  
  - Questionnaire Comment Summary 60  
  - Reflection Paper Themes 62  
- The Professor’s Perspective 64  
  - Predetermined Code Categories 64  
  - Emergent Code Categories 65  
  - Questionnaire Comment Summary 66
Chapter Five

**Descriptions of the Teaching-Learning Dynamics**

This Learning Experience
- Workload
- Goal Mismatch
- Nature of Group
- Emotional Tone of Experience
- Preferred Learning Mode
- Instructor Feedback

The University Learning Experience
- Competition and Learning
- Lectures and Learning
- Learned Passiveness
- Perception of Change

The Learners’ Need
- Practical Knowledge
- Group Work and Learning
- Reflection and Learning
- Roleshifting

Chapter Six

**Final Reflections**

- Strengths of Research
- Interpretive Limitations
- The Teaching-Learning Dynamics
- Praxis Learning
- Fostering Lifelong Learning
- Change in the Halls of Learning
- Recommendations for Practice
- Recommendations for Research

Reference List

Appendices

- **Appendix A - The Study**
  - A-1 Graduate Teaching Pilot Program
  - A-2 Course Description
  - A-3 General Consent Forms
    - a Professor
    - b Students
    - c Third Party Viewers
Appendix B - Data Collection 142
   B-1  Survey Questions
   B-2  Interview Protocol

Appendix C - Reflection Training 145
   C-1  Critical Reflection Class Handout
   C-2  Reflection Assignment
   C-3  Evaluation of Reflection Papers
   C-4  Reflection Example Paper

Appendix D - Data Analysis 153
   D-1  Analysis Codes
   D-2  Analysis Questions
   D-3  Comparative Survey Data
Abstract

The purpose of this qualitative inquiry was to look closely at the teaching-learning dynamics during an undergraduate group’s learning experience. The researcher, as part of a Graduate Teaching Program, participated in an undergraduate course in Educational Psychology as both an observer and a teaching assistant. This research grows out of the increasing recognition of the importance of lifelong learning in the information age and was directed by the goal of bringing student voices into the androgogical dialogue. As the Heuristic methodology shaped this research study, the researcher focused on understanding and articulating the experiences of the participants of this learning experience. The research participants included a group of twenty-six learners in a third year Educational Psychology course, the professor of the course and three other graduate students who acted as third party observers. Survey, interview and observational data were interpreted in light of observations made by third party reactions to a video tape of a “typical” classroom experience. Data from diverse sources and times enabled the researcher to identify themes through the use of triangulation across time, perspective and collection method. The researcher noted a learner preference for group learning activities, a disinterest in lecturing and a passive learning orientation in learners. The student perception of a lack of change and openness within the university environment points to a need for further exploration of contemporary university teaching practice. The researcher highlights the praxis learning orientation observed in this university course and shares her insight into the teaching-learning experience(s) under investigation. The researcher discusses the implications of these findings for university teaching, informal learning settings and the current training and development demand for application oriented learning.
Chapter One

The Age of Lifelong Learning

Increasingly, society's defining characteristic is change. Constant and rapid, modernity's rate of transformation demands that citizens transform accordingly. Toffler's *Future Shock* (1970) suggested that change is happening faster than humans are preparing for it. Bridges (1980; 1990) believes Toffler's ideas to be relevant to the world of the 1980's as well as the 1990's. We need only look around our world to discover how rapidly change is occurring as we approach the next millennium. Contemporary literature designed to assist career planners inevitably confirms the growing need to adapt to change (Foote and Stoffman, 1996; Lifton, 1993; Pritchett, 1996; Rubric, 1996; Smith, 1994). Change has become a guiding force propelling society into the 21st Century. Toffler's (1990) more recent book *Power Shift: Knowledge, Wealth and Violence at the Edge of the 21st Century* discusses how this pace of change has transformed knowledge and learning into modern survival tools. It is within this context that I embark upon this research.

This section will introduce the goals of this research and the place from which this research has emerged. It is hoped that this chapter will clearly present the research to be critiqued. This section begins with a review of Adult Learning Demands and leads into a discussion of Forums of Adult Learning. The final section, Reflections on Androgogy,

---

1 Ivey (1990) contends that the human change process is a natural offshoot of life in the modern world. He explains the dynamic of change as an inevitable aspect of human development. Such a concept has implications for both individual as well as societal development. In this light, the ability to learn - or, as modern androgogical thinkers hold - to become a self-directed learner, is emerging as a basic survival skill for the 21st Century.
provides an overview of the design of the study. The section concludes with an outline of this thesis report.

**Adult Learning Demands**

The Conference Board of Canada’s 1992 survey of employer needs indicated that learning and academic skills are one of the three most important skill domains (accompanied by teamwork and personal management skills). There is a growing perception of the modern worker as versatile, able to learn and willing to change. Naisbitt and Aberdene (1985) describes unskilled people as “the one obstacle to the promise of prosperity in the new information society” (p. 119) and indicates that the ability to develop and learn new skills is becoming essential to survival in this age of lifelong learning. The American Council on Education (1997) explains that the “problem is not so much that grads are worse than they used to be, but that the expectations for performance are much higher today than ever before” (p. 3). Lifelong learning is becoming a way of life which contemporary thinkers and doers are embracing as a basic need.

Although many people continue learning for its intrinsic value, increasingly it is becoming an expectation of the labour market that members of the work force continue it as a means of career management. If one does not yet appreciate the value of developing an effective learning disposition, this is only a matter of time. The focus in this research is on how this learning disposition is cultivated through a university learning environment. This thesis research is written largely from the perspective of market need rather than the aesthetic value of learning itself. This
perspective is a reflection of my personal orientation in the world as a tail end baby boomer\(^2\) (otherwise known as Generation X) and a full time employment counsellor in one of the more competitive labour markets in Canada. These experiences have shaped my understanding of this growing need for educated workers in an information age.

Lifelong learning is a basic tenet of career development. This reality is confirmed in the growing need for both job seekers and holders to recognize the importance of education. Level of education has been linked to degree of employability (Statistics Canada, 1994). In fact, enrolments of older students in university and college full time study has doubled between 1976 (12%) and 1990 (24%).\(^3\) It appears that adult learning activity is on the rise\(^4\). Richard Wortzel (1994) holds that “if you are not relearning your profession every 4-5 years then you are either in a dead end job or are risking obsolescence and unemployment”. Rubric (1997), a Canadian economist, recently confirmed this emerging norm of continuous training to remain employable\(^5\) and highlighted the importance of learning ability as a marketable commodity - a basic employability skill. Kronquist and Soini (1997) refer to this as a “tendency for students to develop a more instrumental attitude toward knowledge and study” where the focus is on

\(^2\) The reader is directed to the recent book by Foote and Stoffman (1996) which highlights the employment shifts and limitations associated with this and other demographic position(s).

\(^3\) This information was taken from a Department of the Secretary of State publication entitled Higher Education in Canada (1992).

\(^4\) It is interesting to note that Shor (1980) explains this rise as functional for an inadequate labor market “Large surplus commodities and surplus labor have been absorbed by taking workers out of the labor pool and into higher education” (p. 5). While his interpretation may be questioned, Shor is referring to the growth of adult learners (or learning practice) in the information age.

\(^5\) For this discussion, the term “employable” will refer to the ability to sustain a source of income through either “employer” employment (jobs) or self employment (entrepreneurship).
"training for a career" rather than learning for its own sake" (p. 1). Modern learners must grapple with the reality that, for them, lifelong learning may continue into retirement by virtue of the world in which they have been born. While this recognition may very well be observed as an 'instrumental attitude', the reality is that those who do not embrace this 'attitude' may well end up without sustainable income. Lifelong learning, although offering intrinsic value for the personal interest and development, has become a vehicle through which individuals can become economically self-sufficient citizens.

Whether on the job or in the classroom, modern work life increasingly demands that its citizens constantly learn. Naisbitt and Aberdene (1985) explains that "in a world that is constantly changing, there is no one subject that will serve you for the foreseeable future, let alone the rest of your life. The most important skill to acquire now is learning how to learn" (p. 133). Learning ability is becoming a basic employability skill in modern life. Contemporary writers confirm modernity's demands on adults. The ability to absorb, retain, apply and update knowledge stores can, in fact, influence an individuals marketability. In a society that has experienced an information explosion significant enough to have generated the commonly heard and understood term information age, it becomes crucial that learners and workers become adept at the process of learning.

---

6 This term has emerged out of an increasing recognition and exploration of the area of employment. Employability skills represent those skill domains, separate from professional skills, that contribute to whether or not an individual can obtain and sustain gainful employment.
Forums Of Adult Learning

Systems of adult education (formal and informal\(^7\)) translate labour market demands (knowledge and skills) into modern curriculum for adult learners. Many adult learners turn to post-secondary classrooms to gain more opportunity for employment and skill enhancement. Although post-secondary classrooms take many forms, this research is intended to include the learner’s perspective in the study of classroom learning dynamics within the university context specifically. The 1994 document “Meeting the Challenge: Status Report on the Implementation of the Strategic Economic Plan” declares that post secondary training sites need to respond to the changing labour market. Other recent government publications acknowledge that post-secondary training offers the willing learner a reservoir of skills and knowledge, each holding a key to economic life (Economic Council of Canada, 1992, and Royal Commission of Inquiry, 1992). Its presence and continued development are crucial to success in the 21\(^{st}\) Century for learners and society alike. The Task Force on Transition into Employment’s publication entitled “Putting the Pieces Together: Toward a Coherent Transition System for Canada’s Labour Force” (1994) suggests that “…the role of providers of education, training and lifelong learning is to set curricula to achieve standards, respond to training needs; and, to relate to the labour market” (p. 10). Educational agendas need to be aligned with emerging labour market trends if educators and the institutions in which they work are to meet the demands of lifelong learner needs and compete with growing alternatives to traditional educational institutions. The American Council on Education’s (1997) recent call for business and higher education “to work together more closely

\(^7\) Clarke’s research (1990) reveals the extent of the “informal training systems” emerging as an outgrowth of a perceived inability of universities to address employee needs.
to meet the demands of a changing global economy” (p. 4) signals the need for a shift in how education is organized and delivered.

Recent research findings by both Clarke (1990) on the informal education system and the American Council on Education (1997) suggest a perception of university as unwilling to change. Naisbitt (1985) explains “we have essentially the same educational system we had in industrial society and we are trying to use it to equip us for the information age” (p. 120). Although Naisbitt speaks predominantly of the secondary school system, with the growing demand for adult learning, one can readily see how this may apply to the post-secondary system as well. Although universities, historically, have changed to accommodate social developments and the forces of history, as Pritchett (1996) points out “...progress keeps picking up speed. The complexity of our world keeps increasing. The rate of change keeps accelerating” (p. 25). As “lifelong learning has made school a cradle-to-the-grave feature of life” (Shor, 1980) the need to become responsive to adult learning demands is crucial to social and individual development. This means that sites of adult learning need to become open to hearing and responding to the needs of learners. This study explores the nature of the learning environment offered to the learner as a source of feedback on the educational offering itself.

Reflections On Androgogy

Education (Latin: educare) refers to drawing out what is already there (Ivey, 1990). The assumption is that given the opportunity and the tools to learn, learners will naturally develop their inner potential. While the educational process doesn't always unfold quite as naturally as
ideals would like, contemporary society is becoming aware of the effects of non academic factors (adult responsibilities, repertoire of learning strategies, personal belief systems, learning environments, motivational levels and meaningful activity) on this "drawing out" process. As discussed earlier, many hold that Education can be conceived as a cumulative process, intricately linked to motivation, opportunity and lifelong learning (Economic Council of Canada, 1992). To promote this "drawing out", educators need to enhance their educational leadership skills with their less (or sometimes more) developed learners. This requires ongoing learning for everyone. The complexity of learning required of citizens in contemporary society demands that education move toward the idea of human development promotion for all involved in the process.

Although the practice of lifelong learning plays itself out in many andrological contexts, this thesis research focused on the learning experienced in an university classroom over an academic term.

Several researchers agree that educational research problems should emerge from concrete occurrences in the daily practice as teachers. Scriven (1980) appreciates the importance of generating research questions from practice and discusses the importance of using the research lens to look at teaching practice within universities (p. 7). He suggests that "we need to raise our consciousness about the standards embodied in our own group practices. They are not the standards we espouse rhetorically or pedagogically, and there is no excuse for this" (p. 8). Scriven goes on to explain "We are all aware of the protracted failure of the great universities to

8 Development (Latin: dis-villuppare) concerns the gradual unfolding of the germ of a person. Ivey (1990) compares this process and the educational process to expose parallels in educational and developmental counseling practice. Although originating in the counseling field these ideas can apply equally well to the field of adult education. This emerging trend of lifelong learning is evidenced in the growing informal systems of training and development highlighted by
inspire, support, or reward research on their own teaching procedures, their own raison d’etre, a failure which is only rectified because of external pressures” (p. 7). Braxton et al.’s (1996) recent study on the effects of teaching norms on the improvement of undergraduate teaching confirms Scriven’s observation. These researchers randomly selected 800 faculty members (holding the rank of assistant professor or higher) across 36 institutions. The professors in this study were asked to complete “The College Teaching Behaviours Inventory” as a means of collecting normative data on teaching practice. A total of 253 faculty surveys provided bedrock for Braxton et al.’s finding that there was a “lack of normative support for a concern for the improvement of teaching” in undergraduate education. It is from this perspective that this research has emerged. This study is an exploration of the experiences of one group of university students.

This research is designed to look at undergraduate learning from the perspective of a third year class of students in Educational Psychology at Memorial University. Data are taken from the students (interviews, questionnaires, reflection paper themes, and observations), the instructor (interviews, questionnaires and observations); the third party viewers (questionnaires); and, myself, the researcher (field notes, questionnaires, journal entries and other reflections). As I participated in this class as a teaching assistant through the Graduate Teaching Pilot Program9, I was able to gather data through qualitative techniques which allowed me to access “the richness of the discourse of daily life” (Shor, 1992, p.177). My aim was to identify and articulate themes

---

9 This program was intended to provide graduate students with experience and training in undergraduate Education to inform their future university teaching practice. More details on this are provided in Chapter 3.
which contribute to an understanding of the teaching-learning dynamics evidenced in this learning environment and explore the implications for future practice and educational research.

The next chapter, **Educational Framework**, provides insight into the perspective of myself, the primary researcher, through whom all data are filtered. The chapter entitled **Research Design** reviews the philosophical and administrative details of the study and leads the reader into a discussion of the **Perspectives on the Learning Experience** (Chapter Four) and my own interpretations of these findings in Chapter Five, **Descriptions of the Teaching-Learning Experience**. In the concluding chapter, **Final Reflections**, I discuss the contributions and limitations of this thesis research and explore the implications of these findings for future educational research and practice.
Chapter Two

Educational Framework

This chapter offers an overview of the literature which frames this research and informs my perspective. The initial section, Views on Teaching, will review research and approaches to teaching adults. A look at the students' perspective The Learner's Perspective follows. The purpose of this chapter is to elaborate on the educational framework of the research design used in this study.

Views On Teaching

Mezirow (1990) proposes a method of gaining self-knowledge and making responsible choices through critical reflection. He puts forward a theoretical and practical approach to adult education which proposes a new educational perspective called emancipatory education. This approach aims to assist the learner in challenging presuppositions and exploring alternatives by transforming old ways of understanding and acting in accordance with the new understandings (of information and experiences) generated from this process. The goal of transformative learning has been well received in the current lifelong learning climate. Transformative learning encourages a process of critical self-reflection as a means of reformulating individual meaning perspectives and knowledge stores. Self-reflection allows a person to review their own lens, the

---

10 This term refers to the assumptions which we make to give our lives meaning and direction. These assumptions to a large extent are derived from our childhood experiences and the impact of the socialization process. Often beliefs based on these meaning perspectives remain
perspectives of others and assess new information. This process fosters a new, more
discriminating and integrative understanding of one's own experience. Transformative learning
requires the learner to assess the formulation of a problem and explore the influence of personal
meaning perspectives on the definition given to both the problem and the solution.

Mezirow (1990) discusses the effect that personal assumptions (which he suggests were
learned in childhood when humans are caught in the inevitable dependency of the socialization
process) have on the way humans perceive, understand and interact with the world they live in.
These meaning perspectives are believed to direct individual actions. Mezirow understands this
relationship between action and perception as an unchecked meaning/action cycle which inhibits
growth by reinforcing old patterns of thinking and relating. This cycle eventually, if unchecked,
becomes self perpetuating. Mezirow offers a means of breaking this habitual action cycle by
injecting the practice of critical reflection. This element of reflection is expected to prevent the
"mindless" reproduction of distorted interpretations of reality based on invalid assumptions, a lack
of evidence or beliefs which are no longer appropriate. This interpretation of human change
provides a beneficial framework in which to approach teaching-learning dynamics and is the
vehicle through which this research takes shape.

Doyle (1994) outlines a similar process when describing recent developments in a teacher
intern program at Memorial University. He describes a program designed to nurture the reflective
capacity (Schon 1983) of new teachers. Through the praxis of self-reflection, interns were
unchecked until adulthood at which point we can reflect on their presence and origins to
determine if they are still functional in our lives. The idea that we move beyond behaviours,
thoughts or emotional responses which are no longer functional in our lives can be found in the
work of Ivey (1986, 1990) as well. Mezirow would suggest that frequently, these assumptions
are not reviewed properly for their efficacy and are passed on to offspring - perpetuating a cycle
of misconceptions.
encouraged in their development of a critical ethnography of education. The call for "transformative intellectuals" is similar to the aims of critical reflection. Both encourage learners and teachers to move beyond content and measurement toward an educational disposition which promotes critical thought, self-directed learning activity and personal meaning making. They both recognise the role meaning perspectives of the teacher and each learner can play in effective, meaningful learning experiences.

Both Cranton (1992) and Cantor (1992) acknowledge and explore the importance of offering adults active learning opportunities. Each offers practical “how to’s” of teaching adults which encourage active participation within the learning experience. Both authors describe effective teaching-learning dynamics as actively engaging the learners with the materials of learning. Adams (1993) explores the dynamics of applied collaborative pedagogy at Memorial University and suggests a value and a need to create university classrooms which encourage the active, collaborative involvement of the learner in the teaching-learning dynamic. Carr and Ow (1996) outline a similarly intended experiential learning model for training peer helpers which uses reflection as one of four learning quadrants (the other quadrants are concrete remembered experience, experiment/action, and wisdom or the big picture). Discussion and small group work guide participants through each learning quadrant. Each of these authors acknowledge the importance of practical learning opportunities in adult classrooms.

There is a growing recognition of the need to offer active learning opportunities in adult classrooms. Scott et al (1997) confirm this apparent need for practical, active learning experiences through their research on the effectiveness of removing lectures from a first year business course and replacing them with small, independent work groups. They stress the need to encourage independence in learners and to foster an interdependence through the use of group
Early education systems were characterized by their exclusive obsession with

philosophy and religion. Education was based on the concept that intelligence was

inherent and was characterized by the logical organization of knowledge.

Smith and Fish (1994) go further to suggest that some learning environments support, encourage

university classrooms are 'identifying similar learning needs for all learners'. This seems that various

authors continue to explain that communication and interpersonal activity is a very important part

of university studies and should be promoted with various methods (p. 4). They concluded that "The

results indicate that the small group activity and the peer model were reasonable in higher

education too, whereas subject aims are as important as the aim of group functioning (p. 4). The

authors suggest that this situation is worsened by the view that teaching is considered a

highlights the dichotomy of an instrumental student attitude towards knowledge and study

their research. This inquiry into Finnish university students and their students in

Koro¤ and Soini (1967) identified a similar quality in the Finnish university students in

university classrooms.

Interestingly, the students in this research noted how applied this practical learning

work.
Consequently practical education was excluded from the formal system from the beginning. This separation of education and experience has persisted down through the ages; even today, they are still primarily perceived as being separate endeavours. (p. 19).

The relevance of these words to modern classrooms of adult learning deserve due consideration.

Brookfield (1984) perused the adult education research on self-directed learning, between the years of 1960-1983, to find that research within this field was riddled with a phenomena he called *methodolatry*. This term originated with Gouldner (1967) to describe the phenomena among social scientists of uncritically holding to the predominant research mode, regardless of its apparent success in producing new conceptual categories or advancing knowledge. Brookfield suggests that *methodolatry* creates an atmosphere in which the dominant methodology and theoretical paradigm determines the definition of a research problem and, in turn the results of the research process. He argues that self-defining quasi-quantitative instruments often predetermine the nature and interpretation of the findings and concludes that this can limit research activity to issues of quantity rather than quality.

Recent writings confirm that educational research has been dominated by a process of reduction rather than a more holistic approach to understanding educational phenomena. Larsson (1986) refers to the importance of *teacher's subjectively reasonable belief* (p. 35) and the need to provide ways of viewing teaching other than the process-product research framework. This subjectively reasonable belief is akin to Mezirow's meaning perspective and embraces the importance of self-reflection as a tool of development for both students and teachers. Bartolome (1994) also identifies a need to place teaching within the context of personal perceptions of teaching-learning. Here consensus appears to be emerging, at least among some researchers and thinkers, that the process of teaching, or more specifically teaching-learning, is as important as the
product.

When interpreting teaching in this light, the value of a reflective process of inquiry becomes apparent and is supported by Larsson’s (1986) suggestion that researchers “open our research agendas to include investigations into the actions, the possibilities of action and reflections on actions” (p. 36). He warns against restricting research on teaching to a study of action only and suggests that “reflections on the way teachers conceive their professional world can be a starting point in the development of more sophisticated concepts... these reflections must start from close experience of this particular area of life” (p. 42). While Larsson does not speak directly of the importance of including student or third party reflections in this new approach, it seems a natural extension of the philosophy of inquiry he advocates.

Handel and Per Lauvas (1987) agrees that the teachers’ practical theory of teaching, or personal meaning perspective, is fundamental to gaining insight into the teachers’ practice and explains that “every teacher possesses a practical theory of teaching which is subjectively the strongest determining factor in educational practice” (p. 9). Floden (1990) suggests that research knowledge can play a substantive, constructive role in teacher education but warns against negative prescriptive interpretations and applications of research findings. He encourages teachers to consider the insights which may be derived from the research process which would otherwise not be available to them (p. 20) and suggests one possible benefit to continued educational research, particularly in the area of teacher thinking, is insight into the processes of teacher learning and functioning (p.17). Cochran-Smith (1990) agrees that more attention should be directed to the roles that teachers may play in generating a knowledge base. In her view, “the voices of teachers themselves... and... the interpretive frames teachers use to understand and improve their own classroom practices” (p. 2) are missing from the education research literature.
As an alternative to the dominant process-product research approach which has framed educational inquiry over the last two decades, Cochran-Smith suggests that “systematic and intentional inquiry carried out by teachers” could shape continuing educational efforts (p. 3). This perspective is shared by many researchers, theorists and practitioners and is best described in the words of Shor (1992): “In reality, all serious classrooms do a form of research because meaningful learning involves examining subjects in depth and from several perspectives” (p.171). The powerful effects of teachers doing classroom research is that “their teaching is transformed in important ways: they become theorists, articulating their intentions, testing their assumptions and finding connections with practice” (Groswami and Stillman, 1987). I began this research as a teacher in the university classroom and end it as a trainer in more informal systems of learning. I have spent much time reflecting on, observing my own teaching practice as well as the practice of others. This research was spawned by my own need to explore the point where teaching theory intersects with practice - for it is at this site that insights are to be found. The present research has provided a window on a university classroom from several vantage points - the professor, the students, myself, as researcher and teaching assistant, as well as third party viewers, all of whom share a base knowledge of educational theory and practice which enable them to articulate their experience.

The design of this study was informed by these recent trends in educational thought. It is intended to invoke a collective reflection on the teaching-learning dynamics as a means to understanding and further articulating the "educative process" (Bloom, 1957). This study can be viewed as a vehicle of change for the student group, the professor and myself as both teaching assistant and researcher as well as contributing to a collective understanding of the teaching-learning dynamic itself. By virtue of the focus of this study (the teaching-learning dynamics) and
the chosen sample (education students and teachers). I anticipated a heightened ability for participants to reflect on their learning experiences — a goal of this research. Dewey's (1938) method of teaching encouraged self-direction, consideration of alternatives and reflection on solutions. In essence, he encouraged a process similar to critical reflection or the use of critical thinking skills. Educational practice stems from the growing need of learners to think in new ways as a result of new demands for knowledge, skills or both. Movement toward self-consciousness is a driving force in existence. We each need to gain an awareness of self. This understanding is especially relevant to educational practice. It is this process of self-direction through meaning making in a learning environment which is the focus of this research study.

The Learner’s Perspective

This study explored the need for educational research to focus on the students’ as well as teachers’ perceptions of the teaching-learning dynamics. In many ways, although the language used differs, the focus of this study is to explore the constructs which teachers and students bring to the learning situation (Oberg, 1986). In an attempt to gain insight into the learning dynamics in which students and teachers engage, the study was designed to go beyond these individual constructs to look at collective meaning-making activity. Throne (1994) suggests the importance of allowing the experiences of students to inform teaching practice. The current study is informed by student reflections on learning.

11 Critical thinking skills are advocated by many as a means of both navigating and surviving modern life in the "information age".
The design of this study borrows from ideas found in recent work focusing on student perceptions of the learning process, although often defined through the eyes of teachers. De Neve's research (1991) compared teachers' conceptualizations of their lectures to those of students (obtained through the standard student evaluation forms) and determined that the lecturers' interpretation of ratings as well as their own thinking about lecturing influence the effectiveness of this means of teacher improvement. In particular, the teacher's "subjective theory" of the teaching affected effectiveness of evaluations (p. 86). De Neve's study was based on the assumption that student feedback is an important ingredient in teacher evaluation. The current study assumes that a greater focus on student subjective theories will provide insight into the teaching-learning dynamics in general. There is a growing recognition that students want to be taught in new ways (Adams, 1993; Cantor, 1992, 1992; Cranton, 1992; Kronquist and Soini, 1997, Roberts et al., 1992; Smith, 1994, Shor, 1980). This research explores this suggestion through the lens of 'subjective theories' of learning experienced by learners in this Educational Psychology class. Although the focus is not on evaluating teacher performance, this research will provide a vehicle for exploring the experience of all those involved in this teaching-learning dynamic with a view to continued teacher development.

O'Connor (1994) conducted a series of focus groups designed to collect information from adult university students. This information was to inform long term university planning by allowing student contributions into the planning process. The assumption underlying this approach affirms the notion that student contribution is an important ingredient in understanding university learning. An perspective taking study by Shea and Taylor (1990) involved the enrolment of four professors in a reputedly "brutal" physics course as a means of shedding light on the student difficulties which had historically occurred in this course. While one wonders why
the professors' did not attempt to include student perceptions in their search for answers (the reason given was that it was not expected that students would be able to articulate their concerns), the idea of bringing in third party observers to provide neutral feedback is intriguing. For this reason it has been incorporated into this study, not as the primary source of data but to provide another perspective which, as anticipated in the Shea and Taylor study, will be informed by educational practice and theory as well as easily articulated. The purpose of including this level of data collection is to allow for from non participants with no vested interests and to provide a means of countering potential bias which may exist due to the researcher’s close relations to both the teacher and to the class as a whole.\footnote{I designed the study to balance this bias by ensuring several perspectives on the issues were considered. The data from these perspectives were triangulated over time, group and method in an attempt to distill the experience of the teaching-learning dynamic.}

Booth (1997) considered the views of 201 first year History students at the University of Nottingham over a three year period. Students explained that discussion and debate were the most enjoyable teaching methods and noted a preference for variety in their learning experience. The researchers conclude:

One lesson from this study, however, is that skills development will only succeed if it recognises that students of history come to university to study their academic subject, and this implies a need to link skills training directly into the teaching of the subject itself. (p.216)

These authors recognise the importance of actively engaging the learner with the materials of learning. Their research is both a demonstration of and evidence for the idea that students’ experience of learning can inform efforts to improve university teaching practice. Nunn (1996) conducted an observational study of 40 classrooms, ranging in subject area, at two large public and two small private colleges. She found that although 97% of the students in this research
believed that classes should involve student participation, observational and student survey data revealed that only a small portion of class time was actually devoted to participation. This researcher suggests that the faculty in this study perceived themselves to be less skilled at leading discussions than at teaching in general. Students in this research agreed with this conclusion. Active learning appears to be a growing preference for many adult learners.

Roberts et al (1992) asked students at a Further Education Business and Finance course entitled “Working in Organizations” (the comments of students from four separate offerings of the same course are considered) how they wanted to learn. When asked, this group of students requested practical learning opportunities and saw a place for group work in their classrooms. Group work provided learners with a task on which to focus their learning, an opportunity for active engagement with the materials of learning and nurtured the development of useful group skills. Rodriguez (1993), acting as a participant observer and occasional resource person, took an ethnographic look at the experiences of six science student teachers assigned to three schools. She conducted an inquiry which focused attention on “the intuitive screens which student teachers bring into teacher education programs” (p. 215). Rodriguez used visual metaphors of teaching and learning to elicit discussion with six student teachers through individual interviews and journal writing. A research design which was very similar to that used in this thesis.

Rodriguez’s research identified a “pervasive chasm between what constitutes theory and what constitutes practice for preservice teachers”. Beginning early in their training, students

---

13 Further Education is described as offering “a second chance for students failed by the school system but prepared to pursue their education in a different context” (Roberts, 1992, p. 9). It is curious to see that students who have been failed through the normal educational route are requesting active opportunities when offered another vehicle of educational experience. Again,
expressed frustration with the perceived contradiction in the offered classroom learning on the subject of classroom management and the real, unaddressed need for practical opportunities to learn this material. The researcher interpreted this to mean that the students had taken on a toolkit attitude toward teaching - they wanted to learn how to "do" classroom management. Interestingly, the researchers still appear not to hear the message in these words as they continue to describe this requested learning opportunity as reflecting a lack of understanding of educational theories and their applications rather than a need for practical opportunities to engage with the material, the theory. The students in this research also noted a perceived contradiction in the teaching behaviours of their instructors. Their instructors were often seen as not practising what they preach. It seems that students expected to have practical opportunities to learn as well as a demonstration of effective teaching techniques in their instructor. It would appear that teachers and students alike are beginning to identify a value in offering practical learning opportunities.

...this finding, although occurring with a select group in a select place offers a curious similarity to other discoveries in adult education discussed in this report.
Chapter Three

Research Design

This Chapter will review the design of this “window” or research approach to gaining an understanding of the teaching-learning dynamics evidenced in this Educational Psychology class. The chapter begins with Focus of Inquiry which presents the purpose guiding this research. The rest of the chapter is organized around Harvey’s distinction between Methodology and Method. In his book, Critical Social Research (1990), Harvey explains Methodology “as the interface between methodic practice, substantive theory and epistemological underpinnings” or the philosophical orientation of the researcher (p. 1). In the Methodology section of this chapter, I highlight the philosophical principles which have guided this research and discuss the Phases of Heuristic Inquiry. The final section, Method, explores the more pragmatic details and procedures of this research study. This section reflects “the way empirical data are collected and ranges from asking questions through reading documents to observation of both controlled and uncontrolled situations” (Harvey, 1990, 1). The next section describes the Context of This Learning Experience and leads into the concluding section on the Data Processing used to organise the information collected in this research. This chapter will provide a clearer picture of the study under discussion in this report.

Focus Of Inquiry

Educational activities are intended to enhance learning experiences for learners. As discussed in the previous chapter, efforts to monitor learning outcomes have historically been
A third goal of video tape of a "typical" classroom experience led another level of triangulation. A third goal of class experiences were compared to those of the professor, third party viewers' reactions to a perspective, time and method of data collection. To achieve this, students' interpretations of other participants in this study. This was done through the use of triangulation across goal was to place the students experience within the context of the experiences and observations.

data to another the interpretations made which flowed from this process of inquiry. A secondary

as a means of understanding their learning experience. As a result the researcher used the student

objectives for this inquiry. The primary research goal was to include the perspective of students

In the Fall 1994, as part of the Graduate Teaching Pilot Program, I outlined several

Purpose

heuristic methodology seemed most appropriate to the task.

rather than the measurement of predefined constructs. A qualitative approach, focused in the

students' perspective. The data analysis focused on the identification of patterns within the data

Educational Psychology class as seen from these sets of perspectives, with emphasis on the

dynamic. The focus of this study was to gain insight into the teaching/learning dynamics of an

believed to be a better vehicle for shedding light on student experiences of a teaching-learning

data collected. For this reason, this research was grounded in the qualitative tradition as this was

experiences to measurable categories would in itself detract from the accuracy and richness of the

involved in a particular classroom experience is questionable. The emphasis on reducing

approach to educational research can easily be appreciated, its ability to capture the dynamics

limited to qualitative analysis geared to measure significant change. While the value of this
this research was to improve teaching practice. To this end, the implications of these findings for adult educational practice specifically at the university level is discussed in Chapter Six. The final goal motivating this research was to identify emergent constructs or descriptive categories of the learning experienced which could provide grounds for future research and contribute to the concurrent findings of other researchers. These description of the learning experienced can be found in Chapter Five.

This study is designed to gain maximum insight into the learning process from the perspective of the participants and observers of a specific undergraduate learning experience. It is intended to be descriptive of the experiences of students and teachers in a shared learning experience and aims to make sense of the patterns found. Moustakas (1990) explains this using a quote from Keen (1975) when he suggests that “The goal of every technique is to help the phenomena reveal itself more completely than it does in ordinary experience.” The sense found through this research has been interpreted and articulated through the primary researcher.

During the early stages of the writing process, I identified an emerging objective for this thesis research to create a picture of the learning experience of this group of learners. The thread which held this research together was Eisner’s (1986) notion of expressive learning goals. In many ways I was in search of that which is typically left unarticulated, unexplored - the expressive learning domain - this is where things happen that are not planned but affect and shape learning. As Eisner explains in The Enlightened Eye (1991), the final goal of educational research is to gain “a fuller understanding of what makes schools and classrooms tick” (p. 35). This research aims to understand how adult learning groups “tick” through a focus on a group learning experience within a specific undergraduate course.
Research Question

The heuristic approach\(^{14}\) set the philosophical tone of this study. Given this qualitative approach, the statement of the problem was not clearly defined as this would preclude the discovery process. Moustakas (1990) explains that "methods of heuristic research are open-ended. They point to a process of accomplishing something in a thoughtful and orderly way which guides the researcher" (p. 43). I set out to understand the teaching-learning dynamics from the students' perspective. For the purpose of clarity, the problem statement can be loosely articulated as an exploration of the experiences of persons involved in a university classroom. More specifically, two general questions have provided conceptual guidance for this research:

1. What contributes to the teaching-learning dynamics in a third year undergraduate educational psychology class?
2. What are the implications of these teaching-learning dynamics for future practice and educational research?

The Research Sample

This thesis research grew out of my involvement in an Educational Psychology class as part of the Graduate Teaching Pilot Program requirements (refer to Appendix A-1 for details on

\(^{14}\) It appears that early writings on creativity outline a similar process. Pointreau was said to have described this process of introspection as involving the following stages: preparation, incubation, illumination and verification. (Wuje, 1995, p. 162). The reader will notice a striking similarity to the heuristic method of inquiry.
this teaching program). Although the decision to involve only Education students and instructors was intentional, to ground or enhance the validity of the themes articulated, it was also predetermined by my area of study. The pilot teaching program’s objective was to encourage graduate students to teach undergraduate courses within their own disciplines. In a sense, the students were not chosen for this study, they came with the teaching mentorship. The professor was not chosen specifically for this study but was chosen as a teaching mentor. This decision was based on my respect for him/her and, as a learner, my preference for his/her teaching style. The possibility of this research emerged from a discussion occurring in early January 1995 between the professor and myself in preparation for the course.

There were a total of twenty six students in this class - all but one were female. The three third party viewers were brought into this research after the student and instructor data were collected. The graduate students were recruited by word of mouth. Both my thesis supervisor and myself spoke to students to request their input. Two third party participants volunteered after hearing an in-class request for research volunteers. Another student was a colleague of mine in the Graduate Teaching Pilot Program. All students were enrolled in graduate courses at the time of the video viewing. The reader will find additional information on the sample later in this chapter.

**Methodology**

Primarily, my intent was to design a study based on methodological pluralism as Sechrest and Sidani (1995) suggest this to be an indicator of good science. These researchers suggest
that “Methodological pluralism is an absolutely necessary strategy in the face of overwhelming cognitive limitations and biases inherent in human mental processing and responding” (p. 80). These words hark back to Denzin’s (1978) belief that “by combining multiple observers, theories, methods and data sources, sociologists can hope to overcome the intrinsic bias that comes from single-method, single observer, single-theory studies” (p. 315). My motivation here is to structure the information gathering process to obtain an effective balance between validity and insight. I agree with Eisner’s (1991) belief that there is a need to “give up (or)... the mistaken ambition of achieving episteme - true and certain knowledge” and his acknowledgment of Tolman’s words that “belief is about as good as we can ever get” (p. 4). This research is also grounded in Eisner’s (1981) suggestion that the field of Education needs to avoid methodological monism, or the exclusive reliance on one research methodology monism, that is, reliance on quantitative approaches. Eisner’s (1991) belief that “educational inquiry will be more complete and informative as we increase the range of ways we describe, interpret and evaluate the educational world” (p. 8) has been woven throughout this study. Ultimately, as Blumer (1968) explains, “truth, or what provisionally passes for truth at a particular time, is thus bounded by both the tolerance of empirical reality and by the consensus of scholarly community” (p. 12). The researcher assumes that continued feedback from others will move this research toward a closer approximation of the truth. Harvey (1990) confirms this approach to critical research practice as follows:

Critical research requires the collection of empirical material, whether statistical or otherwise is not as crucial as the material’s capacity to provide insights... but whatever it is must not be taken at face value. Facts are seen as descriptions of surface appearances (p. 7)... science is not simply the process of explaining the nature of the physical and social world. If one needed only to explain surface appearances, there would be no need for science. (p. 40).
I believed that the Heuristic research methodology best allowed me to move beyond these “surface appearances” to describe the learning experienced for this group of learners.

**Phases Of Heuristic Inquiry**

As mentioned earlier, the Heuristic approach framed this study. Douglas and Moustakas (1985) define this as “a search for the discovery of meaning and essence in significant human experience” (p. 40). Heuristic inquiry “challenges the scientist to uncover and disclose that which is as it is” and is intended “to generate a new reality that embodies the essence or the heuristic truth” of an experience (Moustakas, 1985, p. 42 and 52). As this approach is deemed to be a powerful means of disclosing ‘truth’, I anticipated some valuable insights to inform ongoing educational research and learning activities. The heuristic process begins with *Initial Engagement*, moves through *Immersion* to the *Incubation* phase of research. *Illumination* is the next phase of inquiry and is followed by *Explication*. The final phase, *Creative Synthesis*, concludes this research process. I will define each phase, and provide a chronological map of my research activity. This discussion will provide the methodological context of this thesis research.

During the first phase of research, *Initial Engagement* (September - December 1994), I focused on familiarising myself with the general field of study. This phase consisted of exploration of the literature and reflection on my own teaching practice. At this stage, little data existed other than my own observations and insights into the dynamics of teaching-learning.

15 The phases of heuristic research described in this report build on Douglas and Moustakas’s (1985) conception of the process as involving - Immersion, Realization and Acquisition. The 1990 model further clarifies the process elements of heuristic inquiry by more clearly differentiating between the activities involved in this approach to research.
Field notes. More can be found on this topic in Chapter 4.

17. The data collected included surveys of classroom experience, reflection assignments on
in the informal educational system
interest because a source of intrigue for me in my teaching practice as well as my work as a
both learner and teacher shaped my interest in the learner's experience in the process. This
combination of practical training balanced with more theoretical learning. This involvement as
This program involved a mentoring arrangement which allowed me to learn from a
16

This phase was dominated by my own (and for an internal frame of reference as in an
researcher lives with the question in waking, sleeping, and even in dreams. (Moustakas, 1990)

At this point of the research, the "question is discovered and the
learning-experiencing-dynamics. At this point of the research, the "question is discovered and the
by literature review, conversations, practice issues and critical reflection on the nature of the
1995). During this immersion phase of this inquiry, I embarked on a self-directed inquiry informed
later half of this phase I did not review the data until the last interview was held (December 15).
clear lines of influence in the various data sources. The formal data collection occurred during the

contradictory to general qualitative research practice, I made this decision in order to maintain
I felt it wise not to "process" the data while it was still being collected. Although this may appear
by informal observations, practitioner reflections and ongoing data collection. As a precaution,

The Immersion Phase of Inquiry (January - December 1995) followed and was highlighted as
leaves provided a practical grounding for the relevance of the ideas emerging

this study. My full time work as an employment consultant working with many early school

Implications. My teaching experience provided a breathing ground for the ideas which motivated
program (1994-95) provided a vehicle for reflection on the research theme - Learning-Learning
During my thesis research on teaching-learning dynamics emerged. The Graduate Teaching

During this phase I worked as a teaching assistant and was during this period that the idea of
instructor and a researcher. The outcomes of this portion of the research were the articulation of a research question, albeit loosely defined. As mentioned earlier, formal hypotheses are not used as they contradict the philosophy underlying the Heuristic approach - they are believed to presuppose the discovery process. The Heuristic method of research requires the researcher to embrace the discovery process rather than control it. Additional activity at this stage included the conscious recognition of my interpretive lens, the submission of a research proposal to the Ethics committee at Memorial University, teaching activity related to the Graduate Teaching Pilot Program, involvement with the Educational Psychology class focused on in this study, collection of all data including third party observations and interviews with the instructor and students. The course under study was offered in Winter 1995.

The *Incubation* phase (January 1996 - June 1996) was a period of rest during which I reflected on research activity to date. During the first part of the *Incubation* phase of research, I transcribed the interview audio tapes. The latter part of this phase was spent reading and re-reading the data (interview transcripts, survey results and my own journal notes). The focus at this stage was not on identifying themes, although some themes appeared to be emerging, but rather on familiarising myself with the data in general and then later the different perspectives involved in this study (student, instructor, third party viewers and my own). At the end of this phase, I returned to the literature as a means of reflecting on the research in a broader educational context.

The next stage of the research process, *Illumination*, (June 1996-December 1996) is described by Moustakas (1990) as:

One that occurs naturally when the researcher is open and receptive to tacit knowledge
and intuition. The *Illumination* represents a breakthrough into conscious awareness of qualities and a clustering of qualities into themes inherent in the question... it may involve correcting distorted understandings, or the disclosure of hidden meanings. (p. 29).

Reflectivity is necessary but not sufficient to achieve the goals of this phase as "the mystery of the situation requires tacit workings to uncover meanings and essences" (Moustakas, 1990, p. 29).

The last section in this chapter provides specific details on the data processing which occurred.

During the *Explication* phase (January to August 1997), I began organizing the content for the final report. The *Explication* phase is intended to allow the researcher to "fully examine what has awakened in consciousness, in order to understand the various layers of meaning" (Moustakas, 1990, p. 31). Through a process of focusing on the data and the trends emerging, I began the process of articulating the findings of this study. This phase overlapped with the next and final phase, *Creative Synthesis* as the writing of this report became a recursive process of interpreting and re-interpreting. It was at the transition between these phases that I became aware of the recursive nature of this inquiry process as I would frequently return to previous stages in an effort to integrate and articulate the research findings.18

The *Creative Synthesis* phase (July - January 1997) was marked by reflection on and integration of all report feedback from committee members and preliminary readers. This final *Creative Synthesis* phase allowed for "a whole [to be] assembled from the fragments and disparate elements that have been generated during the search for essence and meaning" (Douglas and Moustakas, 1985, p. 52). It is here that I became intimately familiar with the nuances of the data and started making intuitive connections within the data. Moustakas (1990) explains that

18 At this point in the research I began to appreciate the recursive nature of qualitative research. It seemed that for every step forward in my understanding of the data, I moved two steps back to articulate that understanding.
“once the researcher has mastered the knowledge of the material that illuminates and explicates the question, the researcher is challenged to put the components and core themes into a creative synthesis” (p. 32). He goes on to explain “the researcher’s experience must move beyond any confined or constricted attention to the data itself and permit an inward life on the question to grow, in such a way that a comprehensive expression of the essences of the phenomenon investigated is realized” (p. 32). Fundamental to this approach is my own active engagement in the research process as my own perspective and reflections on the object(s) of inquiry are considered to be valuable sources of information. To this end, I was an active participant throughout this research.

Method

This section will lead through a detailing of the research as it was actually carried out.

The discussion begins with Data Collection and leads into an overview of the Context of this Learning Experience. This chapter will conclude with a discussion of the Data Processing used to organise or make sense of this research data.

Data Collection

Data were collected through the use of surveys, group sessions and individual interviews. The participants were the students, professor, and the teaching assistant (myself) of a third year
Educational Psychology course. Third party observers of a video-taped class\textsuperscript{19} of the learning experienced in this class was also used. The focus of data collection was to encourage reflection on the participants’ experience and to articulate it through the use of focus group, interview, participant observation and survey methods of data collection. At the end of each of two designated classes students, teachers and myself, the participant observer, completed a questionnaire (see Appendix B-1). After the classes had ended for the term, I facilitated three group discussions with the students as well as an interview with the professor. As the participant observer, I noted my reflections on the learning experience offered over the term. Once all data had been collected from the two classes, third party raters viewed one tape and completed the same questionnaire as the other participants.

As this study grew out of a teaching-learning experience in which I participated on several levels, there were many opportunities to collect data informally. As I was aligned with the instructor in this class in a formal mentoring relationship, established as part of the Graduate Teaching Pilot program, I participated in this learning experience as student (of university teaching), teacher (in training), observer (when not teaching but present in class) and researcher (thesis research). Several sources of data were available by virtue of this multi-level role. Informal observations throughout the duration of this course were another significant source of data for this inquiry. As would be expected for an heuristic project, I worked to integrate these insights rather than dissect or ignore their presence. Through my practice of reflection and the methodological safeguards built into this study (see Chapter Six), the knowable bias is believed to

\textsuperscript{19} The reader is reminded that the third party viewers watched a video tape of one classroom experience in the life of this course. Third party viewers completed a questionnaire following this video viewing.
have been kept in balance.

Reflection Training

The students of the Educational Psychology course were given the opportunity to develop their capacity for reflection through formal training and a follow-up class assignment (see Appendix C-2 for assignment description). All students experienced an in-class demonstration of reflection, reviewed an example assignment, prepared a trial reflection assignment and were given continuous feedback and opportunity to improve their reflectivity throughout the term. The formal instruction consisted of an hour long class in which the conceptual framework and the practice of reflection were reviewed and demonstrated through a group discussion. The particular brand of reflection taught stems from Mezirow's definition of critical reflection (1985; 1990) as a vehicle of adult learning which involves:

Reflection on and assessment of the assumptions underlying your problem definitions, consideration for the effect this has on your own 'worldview', recognition of their sources and consequences in a social context and an active engagement with them to allow from a more inclusive, discriminating and integrative understanding of your own experience. (1991, p.34).

Further discussion on this approach to adult education can be found in Chapter Two.

The lecture on Critical Reflection was accompanied by a demonstration reflection activity, which the students chose to do as a full class rather than the intended small group format.

Although the students expressed discomfort with both group work and reflection initially, this soon shifted into an appreciation of the value of both as learning tools. During the in-class demonstration a school related scenario was presented to the students and I facilitated a
brainstorming session on possible interpretations of the scenario. This discussion was followed by a review of a "model" example of a reflection paper based on the content of the previous class (see Appendix C-4 for this example). The students were then asked to do a trial reflection paper. It was deemed a "trial" paper as the student could choose whether or not their first reflection paper was experimental or included in their final course grade. Extended feedback was given on all papers to assist with the students' developing reflective skill and other relevant evaluation issues. (see Appendix C-3 for the evaluation scheme used for papers). In general, the assignment, although initially evoking negative reactions, was well received by the students. The reflection assignments required of these students holds particular relevance to the nature of this study. The process of reflection is intrinsic to this thesis research, the design of the study, the methods of data collection used and the analytical approach to data interpretation. It is through a reflective lens that the I approached this thesis research.

Participant Instructions

All participants were informed of the study as described in the consent form (see Appendix A-3) and only those persons comfortable with participation in this study signed the forms. All students agreed to participate in this research. The students, the instructor and the third party viewers were enthusiastic about this research and voiced a recognition of the importance of exploring this area. Prior to the post-class survey completion, students and the instructor were asked to speak of this class in particular. Minimal instruction was given as I wanted to reduce any influence on their interpretation of the learning they had experienced and believed them to be capable of conceptualizing, reflecting on and articulating their learning experiences. Students
were instructed to reflect upon their experience when class was taught by the professor rather than on my teaching over the term and were asked to respond to the questions honestly.

The student discussion groups each lasted approximately 1.5 hours. Students were assured that the nature of their comments would not affect their grade in the course as their answers remained anonymous. I initiated each discussion group by encouraging general comments. If none were forthcoming, I posed questions from a predetermined interview protocol (see Appendix B-2 for a list of interview questions posed and an explanation of their origins).

I discussed this research with the course professor on three separate occasions. The first interview was just prior to the student discussion groups and followed the same interview protocol as the student discussion groups. The second interview occurred after the student discussion groups and focused on the instructor's background and teaching philosophy or his "subjective theory of teaching" as discussed in Chapter Two. The third and final interview with the instructor took place after the third party video viewing. This interview followed the process of Interpersonal Process Recall (IPR)\textsuperscript{20}. The instructor and I watched the same video-taped class as the third party viewers. The instructor was encouraged to comment on what he saw. We stopped the video and discussed issues as they arose. On occasion, I stopped the video to discuss relevant issues that appeared to be emerging themes of this research.

The events occurring during the third party viewers' discussion were particularly curious to me at the time of data collection and became more curious as I entered into the data analysis

\textsuperscript{20} This process was discovered by the researcher during her graduate practicum in Educational Psychology at Memorial University Counselling Services. It was a procedure used in training offered to counselling trainees. The objective of this process is to encourage the trainee to reflect on their practice as seen in video tape(s) of their clinical work with clients. This approach was chosen because it fit within the "reflection" theme of the study and appeared to provide a vehicle for transformative learning for the instructor.
session. There was an unexpected shift in the intended viewing session. During an unexpected move from the initial viewing room, due to a room scheduling disruption, participants waited in a new room while I transported and set up the equipment in a new room. During this time of travel in and out of the room, I noticed the topic of conversation to be the nature of undergraduate teaching at Memorial. When I was ready to begin, the conversation upon entering the room was on the topic of “passive students” at MUN. The viewers had agreed that undergraduate learning was passive and were discussing whether passive learning qualified as real learning. Upon entering the room and settling in to watch a heated debate, I noted the particular issue under review was: “Even if the professor doesn’t encourage interactive learning, how can you not learn anything?”

At the time, I decided to wind down the discussion and lead into the video viewing as my focus was to get both individual (questionnaire completion) and group reactions (group discussion following questionnaires) to the particular learning process under review.²¹

Thirty minutes into the video, a participant interrupted and asked “Do we have to watch this?” She explained that she found it to be a very frustrating class to watch. I responded by explaining that my preference was “yes” and put it back to the group of viewers to decide if they would continue with the video. Group consensus was to continue watching for 15 minutes and then check in. I encouraged the frustrated participant to note her reaction on the questionnaire paper. At the check-in point (15 minutes later), the group decided to start completing questionnaires (~10 minutes left of class video). Participants took an unusually long time to complete questionnaires (~1 hours). As a result of this and a previous room mix up at the

²¹ In retrospect, the researcher has wondered whether IPR may have been a better alternative for getting information on third party perspectives as it would have allowed for more participant discussion.
session's start, there was no discussion group following the video viewing. The viewers were directed to comment on their reactions to this video and to explain their understanding of what went on in this classroom experience. I directed the participants to explain or explore their reactions to what they were seeing and to attempt to articulate this on paper. Again, I encouraged the “frustrated” participant to explain her reaction in the questionnaire for later reference.

Context Of This Learning Experience

The section to follow will provide insight into the socio-historical context in which this research occurred. A discussion of the Graduate Teaching Pilot Program is followed by a review of this specific Educational Psychology Course. This section will allow the reader to assess “the powerful role of context”, as context influences the meanings attached to interpretations (Krantz, 1995, p. 92).

Graduate Teaching Pilot Program

As discussed earlier, this research was possible due to my role in the Graduate Teaching pilot program offered through Graduate Studies, Memorial University. This program was designed to: (1) help prepare graduate students for future academic careers; (2) strengthen undergraduate teaching at MUN; (3) make students aware that teaching is an intellectually
challenging, rewarding enterprise, and, (4) provide opportunities for discussion and research on pedagogy. This teaching program required participants to attend by-weekly classes on issues relevant to teaching at the university level. In conjunction with this in-class component, the researcher was linked with two faculty mentors, one each academic term. Through this relationship, appropriate roles and duties were negotiated. Participants of this program varied with regard to the amount of in-class teaching they engaged in as this was negotiated between each mentor and mentoree. I lead three classes during the initial term (Fall 1994) and played a larger role in assignment development and student evaluation.

During the Winter 1995 term, the focus of this study, I participated more fully in the classroom instruction. The study takes place over the second term of this program and investigates the Educational Psychology class with which I was involved as a teaching apprentice. Within this role, I engaged in several activities over the term including teaching ten classes (mainly the “methods” topics in this course as this content seemed to provide fertile reflective ground) and was present for all classes. As part of my negotiated duties in this course, I designed a reflection assignment (see Appendix C-2) requiring the Educational Psychology students to complete five “reflection papers” over the term23 and I was responsible for their evaluation. I frequently spoke with students regarding the reflection assignment as well as other class concerns. I was present for all classes. My presence was clearly accepted by the students and they were very open to this mentoring arrangement.

23 As I was already becoming overwhelmed with the growing heaps of data flowing from this project, I decided to use themes of reflection papers rather than photocopies of the original document. This decision was based largely on economy of time. Another decision I have come to regret.
The Educational Psychology Class

This study takes place during an Educational Psychology course (Education 3615) at Memorial University. The course is offered as part of the teacher training program offered through the Faculty of Education. It is generally taken by third year students and many of the students had previous exposure to the topic. The course was primarily composed of third year Education students heading for teaching careers in primary and elementary education. The course was offered during the Winter of 1995 and students attended class twice weekly (12:00-1:15). As it was scheduled during lunch time, students frequently ate their lunches during class. Course requirements included a library assignment and short test, four reflection assignments, 24 a mid term exam, a research paper and a final exam (a class outline can be found in Appendix A-2).

The students in this learning group ranged in age from the early 20's to the mid 30's with the majority falling between 20-25 years. Demographically, these students were predominantly Baby Busters25. Several students were single mothers and most had part time work. This group of learners was in their third year of teacher training and some were engaged in classroom observation days. All students were headed for either elementary or primary school and most were interested in primary education (with the exception of one student who had returned to university after deciding to make a career change). Few of the students had yet acquired a professional background in the field of teaching. Given current requirements for admission to

24 This particular assignment was pivotal to the data collection phase. The reader will note the description of this process provided in Appendix C.

25 Born between 1967 and 1979 following the Baby Boom generation (1947-1966), the Baby Busters did not experience the same “land of plenty” known by the many of the Baby Boomers. For this group, economic survival is rooted in competition for scarce resources (jobs) through the acquisition of resources (skills and knowledge) offered through our learning systems.
Education faculty, many students had already acquired undergraduate degrees in other disciplines.

Several concerns were expressed by the students throughout the course. Initially, students were very concerned about a library assignment and test on which they were to be evaluated. This concern was apparent in class as well as in person. It was a recurring theme in their reflection papers throughout the term. While some seemed not to like this task, most students appeared to value the task as worthwhile as it required them to learn computer and research skills. However, they felt it was offered too late in their training. The majority of students agreed that this task, despite its usefulness, should not have been graded. In line with this, students frequently voiced complaints of a heavy and uncoordinated departmental workload. In response to this, portions of several classes were dedicated to resolving related conflicts with the students. As a compromise for the library assignment, students were required to do four rather than five reflection papers. This change was well received. Throughout the term, individual discussions, reflection papers as well as the final discussion groups revealed a preference for practical learning activities. Although this group of learners appeared very eager to learn, it seemed that the lecture format did not satisfy all their learning needs. Students frequently spoke to a preference for group learning activities.

The instructor in this course has been an university professor for approximately 25 years. He began his academic training by obtaining a B.A. in Psychology and English. This degree was followed by a Master of Arts in Applied Psychology specializing in Counseling and Exceptional Children. He continued on to accomplish a Ph.D in Educational Psychology specializing in Child Development and Counseling. He began teaching course work in the areas of Introductory Psychology, Child Development and Learning. The next stage of his career development focused
on teaching Special Education followed by courses in adult and adolescent development. Nonverbal communication was his next instructional area. The instructor then became an intern and research supervisor. This led him to more recent teaching in Educational Psychology. At present, his research interests rest broadly within the area of the educational experience of young children including parents, classroom experiences and the impact of media on development.

The instructor defined his teaching philosophy as based on cognitive learning theories. He explained that he was ‘quite Vygotskyian’ and he expressed a strong belief in the necessity of offering highly structured and “integratable” knowledge. He believes that this educational offering needs to be done in a manner which is sensitive to and/or controlled by the ability, interests, and background of the students as well as the state of learner. As a child custody assessor, his goal is to maintain and enhance the quality of children’s lives. In accordance with this principle, an alternative goal for his teaching is to develop methodologies which allow students and other practitioners to improve performance in these areas of work. The instructor believes that his teaching goals and his practitioner goals are highly integrated. He deals with teachers and parents both as “offerers” of experiences to young children. Academically, he seeks to understand and present information which he collects through clinical and empirical research focused on developing models of intervention. He sees himself as testing these intervention models through his own field work.

The third party observers were all graduate students in Education. One was studying Administration and the other two students were in the Teaching stream. The graduate students were gathered through word of mouth. The participating students were the first three who volunteered to participate. Two of the students appeared to have a more extensive professional background than the third participant. One had a background in nursing and administration while
the other was an experienced high school teacher. The third participant had background training in teaching and was active in teaching and drama. One of the third party viewers was also a participant in the Graduate Teaching Pilot Program.

The Graduate Teaching pilot program, as mentioned earlier, provided the springboard from which this study emerged. In many ways it provided a loose framework for this phase of professional reflection. I was introduced to reflection as a tool for adult learners in 1990 during previous graduate training at the University of Ottawa. As part of this program of study, I enrolled in several Adult Education courses. In addition, I have held several university teaching assistantships during both my undergraduate and graduate training with responsibilities ranging from grading papers to group facilitation. I have also acquired many years of teaching experiences as a trainer in the informal training and development system focusing on topics of a personal and professional development nature.

The Graduate Teaching Pilot Program allowed me to gain practice, feedback and guidance in the area of university undergraduate teaching. One of the many personal objectives I developed to direct my learning was to gain insight into the teaching-learning dynamics. It was in response to this personal goal that I called upon previous training in the area of reflection and began applying it as both a learning and a research tool. Reflection was used as a means of conceptualizing and articulating experience (a research tool) and as a means of enhancing learning outcomes (a learning tool). As the program progressed, so did the my interest in the dynamics of learning. It was during a discussion with my second term mentor (the professor in this course), in preparation for the upcoming term that the present study became a reality. In many ways, participation in the Graduate Teaching Pilot Program was the prerequisite for the conception and articulation of this study.
Data Processing

This discussion is drawn largely from an analysis log in which I kept notes during this phase. This log was intended to “to track myself and decisions made throughout the analysis...and to document the process in which I am about to engage as well as insights which would otherwise float” (June, 1997). The majority of data processing occurred in *Illumination* research phase (June -December 1996). I initiated this research phase by familiarizing myself with *The Ethnograph* software package\(^26\) until reaching a level of comfort to proceed. After reflecting on the purpose of research for some time, I launched into data processing. The student interview transcripts were the first piece of data I formally manipulated in this “meaning making” process. Although *The Ethnograph* was very user friendly, I decided to code manually and then input codes later. This decision was based on my need to physically be with the data. It seemed that the computer created a distance between me and the essence of the data.\(^27\)

To create a referent point for later data interpretation, the predetermined codes were adapted from Patton (1990). Patton used these categories in his work as a program evaluator and found them effective for accessing useful information. The use of these codes ensured the

\(^{26}\) *Ethnograph* (v. 4.0) is an example of MS-DOS software designed to provide computer assistance for the qualitative analysis of text. This program allows the user to divide the text into segments or categories. The software then allows the user to search for patterns in the coded categories (or segments) of data. I used *Ethnograph* when working with the interview transcripts of both the students and the professor. The predetermined codes used to categorize the data can be found in Appendix D-1.

\(^{27}\) This emotional experience paralleled the emergent student “emotional” code and will be explored in the next chapter. I began with the student transcripts as this fell in line with a desire to have the “student transcripts drive the data analysis process” (96-06-03). This decision coincided with the research objectives - to give voice to the student group. I felt that if I was to be biased in my analysis, I would do so in favor of the students. To this extent, I chose my bias to explicitly articulate perceived bias as a means of avoiding unintended bias.
presence of consistent categories describing each perspective. This provided a built in
methodological safeguard (see Appendix D-1 for the code list). I followed the same process for
all transcripts, starting first with the student transcripts (two group discussions of five students
each and one student interview) and then the instructor transcripts (one interview directly after the
course and one six months later at the end of all data collection). I read each group of transcripts
to gain an overall impression, taking minimal notes on the data but focusing on the process and
the tacit dimension of the experiences described. It was through this process of introspective
reflection on the data through which the themes presented in this report emerged. Next, I worked
with the transcripts using Patton’s codes followed by a return to the original transcript looking for
emergent codes which described the texture of the comment (eg. emotional content or reactions)
rather than the type of comment (eg. P x L or participant reactions to learning). I spent quite a bit
of time in this initial phase as the student data seemed to be the most representative of the actual
social reality under investigation. Once I felt confident that I had reached a point of clarity and
identified the anchor themes (strongly evidenced themes in the data), I returned to the transcripts
to clean codes where appropriate and then began to work with the student questionnaire data (a
total of 51 questionnaires, two per student).

The student group completed questionnaires after two separate classes near the term’s
end. Once the student transcripts were processed, I began to compile the questionnaire answers
for each class. For the more quantifiable questions, numbers were tallied. These are presented in
the next chapter. Those questions which produced more open ended answers were “tallied” by
creating categories to describe the answers within. The categories created grew directly out of
the students’ written words and my interpretation of them. When the student data were
processed, I proceeded, using the same approach, to the instructor data. First the instructor transcripts were processed and then the questionnaires. The instructor data included two interview transcripts and three questionnaires (two completed after classes and one after the Interpersonal Process Recall interview).

Once the student and instructor transcripts were processed, I reviewed the third party data. Next, I reviewed all other available data including journal notes, Educational Psychology class notes, Graduate Teaching Pilot Program class notes, video-viewing notes, course evaluations and other process notes. My focus at this point was on re-familiarizing myself with the general learning context under investigation. Once all the data were processed, I created data summary sheets for each source of data and, where appropriate, tables were created. I used the anchor themes already identified in the data as a referent point for further theme identification. These anchor themes are elucidated in the next chapter.

Guiding Principles Of Analysis

As with most research, several “rules” grounded the analysis of the data collected. By “rules” I am referring to the criteria I used to assess analysis decisions which in turn shaped interpretive decisions. Many of these premises were determined prior to the process beginning and others grew out of my engagement with the data analysis process itself. Some stem from Moustaka’s (1994) discussion of the practice commonalities in phenomenological inquiry which include:

1. recognition of the value of qualitative designs and methodologies in capturing pictures of experience not available through quantitative approaches
2. focus on the wholeness of experience rather than its objects or parts
3. search for meanings and essences of experience rather than measurement and explanations
4. descriptions of experience through first hand accounts
5. appreciation for the role that the data of experience plays in understanding behaviour and providing scientific evidence
6. acceptance of the formulation of questions and problems which reflect the interest, involvement and personal commitment of the researcher
7. fostering a view of experience and behaviour as an integrated and inseparable relationship of subject and object and of parts and wholes

He describes this newly developing transcendental phenomenological research approach as engaging “in disciplined and systematic efforts to set aside the prejudgements regarding the phenomena being studied” (p 22) and refers to this process as the Epochen of research.

*Epochen* is a German word meaning to stay away from or abstain. It is a term used by Husserl (1970) to refer to freedom from presuppositions. Moustakas (1994) describes this *Epochen* phase as follows:

A way of looking and being, an unfettered stance. Whatever or whoever appears in our consciousness is approached with an openness, seeing just what is there and allowing what is there to linger......*Epochen* includes entering a pure internal place, as an open self, ready to embrace life in what it offers. (p. 86).

I placed a lot of value on this process and often let the data linger as a means of both verifying, defining and articulating its meaning.

Although seemingly contradictory to the heuristic drive for an understanding of the experience of the learning phenomena under investigation, the themes identified in this research were labeled through the use of levels of verification. 28 These levels of verification grew out of

28 I aimed to harness the richness of both qualitative and quantiative approaches in order to construct worthy products of research with a focus on understanding the meaning attributed to this experience as viewed from several vantage points. I felt this approach to the data to be appropriate to the task and to ensure a standard of quality.
the triangulations used in this research and each level represents the answering of a question posed. Simply put, I used the recursive nature of qualitative inquiry as a means of verifying the themes generated from the data by returning to all other levels preceding it. Upon initiating the analysis of data phase of research, I first developed a set of questions to be posed at each stage of analysis (see Appendix D-2). These questions served to impose an order on the data analysis, to direct mental work at each level and to provide a means of theme verification. In an early analysis log entry, I explained “I will focus attention on each level of verification and write a summary of each data set [and] move rather sequentially through the “great fundless desert of data” (96-08-30). I decided to take this “sequential” approach in order to enhance the \textit{Epoch} nature of this inquiry\textsuperscript{29} - it was intended to stay true to the data. By focusing on each perspective to gain a clear understanding and then moving on to the next perspective, I believed that I remained as close to each perspective as was possible. I felt that the student perspective was the closest to revealing the “essence of learning” followed by the instructor perspective. The documented observations were next reviewed in conjunction with the third party perspectives (as a check on potential researcher bias) of the events under study. Within each perspective, I moved from the purest data (found in the transcripts) to more removed researcher observations.

Notes On Interpretation

Again, as with all attempts to understand social reality, I had to grapple with the nature of

\textsuperscript{29} The reader is reminded that this thesis research was designed with a heavy reliance on and guidance from heuristic inquiry, the references to \textit{Epoch} are intended to further describe elements of my conceptualization and practice of heuristic inquiry.
interpretation itself. While embracing the idea of tending to the needs of the Epoche phase, it seemed appropriate to share my beliefs regarding the process of interpretation itself as these too will shape the research outcomes. This section reviews some of the dilemmas found in any interpretive work; that is, any work where there is an observer [interpreter] and an observed event [interpretation]. My approach to interpretation is very much akin to Moustakas (1994; 1990; 1985) and Harvey's (1990, p. 22) discussion of “essence” as the fundamental element of any analytical process. The “essence” of this analytical inquiry is learning, more specifically, the teaching-learning dynamics experienced by this group of undergraduate learners in Education. A secondary focus was on the change process as it occurs in learning.

With this in mind, I set out to understand the data only to “realize that I was searching for re-occurrences or patterns in the data. As I always did for papers, these patterns will be re-integrated into an explanation” (researcher notes). My goal was to place this example of a teaching-learning dynamic under a microscope so that I may work toward distilling the essence of this phenomena. In many ways, I am “the perceptual lens through which observations are made” (McCutchon, 1981, p. 9). For as McCutchon continues “interpretation...[is defined as]. placing a researcher in an active role in the construction of meaning” (p. 10).

I appreciate the importance of respecting the process of research and using “adequate safeguards against the many potentially invalidating or contaminating factors which threaten to diminish the interpretation made of the resulting data” (Harvey, 1990, p. 10). Chapter Six provides a more thorough examination of the potential interpretive dangers associated with this study. As a means of reducing potentially misinformed interpretations, I adopted several “markers of significance”. A interpretive guidepost, borrowed from Maquet (1964), was whether or not an interpretation makes the data more intelligible. As McCutchon (1981) asks “does the
set of concepts... provided by the interpretation facilitate a richer understanding of the phenomena under study?" (p. 8). All themes identified in this research made sense of the data studied and the degree to which themes make sense of the experiences reported contributed to the strength of the interpretation.

Further to this, McCutchen (1981) outlines the criteria for judging interpretations as: 1) whether the line of reasoning is sound; 2) whether sufficient evidence is present; 3) whether interpretation is in accord with what else is known about schooling; and, 4) whether interpretation promotes significant understanding. To the degree that the patterns in the data accorded with these standards, the emergent themes were accepted as plausible explanations of the learning phenomena under investigation. As advised by many mentors, my aim was to explore these criteria through a dialectical relationship with the data, returning to it when needed and comparing its many forms often. The data itself acted as a referent point to assess emerging themes.

The remainder of this thesis report will focus on the data collected during this study, its relationship to the findings of other writers in the area and my interpretation of the teaching-learning dynamic observed in this university classroom. Chapter Four will lead through a summary of the data collected during this study and Chapter Five will reflect my own integrated understanding of this research. The descriptive categories discussed in Chapter Five represent snapshots in time or a collection of perspectives occurring at several points in the grand flow of the educational experience of these participants. They are, by their very nature, incomplete and exploratory. The final section of this report, Chapter Six, will provide some of my reflections on this research as well as how these findings might influence future teaching practice and research.
Chapter Four

Perspectives on this Learning Experience

This chapter represents a summary of relevant data. To determine relevance, I went through a process of organizing, reducing, and decision making which has preceded and defined the data reported in this section. The reader is reminded of the inevitable choices which must be made in order to report data in a comprehensible fashion. The process of analysis, by definition, simplifies experience by constructing descriptive categories and labels. Although I tried to stay close to the actual data, given the variety and amount of data, decisions had to be made as to the relevance of individual pieces of information to this study’s aim. Generally speaking, the data that spoke to the learning experienced in this class were deemed relevant to the research aims.

This chapter represents summaries of the data collected in its rawest form (see Chapters Five and Six for my interpretation of this information). A review beginning with The Learner’s Perspective, then The Professor’s Perspective is followed by a discussion of the Researcher’s Perspective. This section concludes with a discussion on The Third Party Perspective.

The Learner’s Perspective

For the classes surveyed, the response rate included the total class of 26 students for class 1 taping and 25 of the 26 students class 2 taping of this course. Of this group, 42% said that their learning was similar to that experienced in other classes and 23% indicated that they

30 The reader is reminded that the researcher taped and surveyed students after two classes near the end of term. While this was intended to provide the best window on their experiences, it also occurred during a relatively hectic period of time.
experienced a change in feelings toward the class after it had ended. Fifty-six percent of those students who responded said that the instructor created an "effective learning environment" and 60% of students indicated that the learning they experienced was useful to them.

Answers from a 5-point Likert placed the perceived student contribution at 2.3, student interest at 3.2, and student motivation at 3. The average student rating of instructor motivated learning was 3 (67% rated 3 or above) and 2.9 (65% rated 3 or above) was the response to the students’ rating of a helpful and supportive relationship with their instructor. The students rated their amount of learning at 3.0 (73% rated 3 or above) and their amount of transformational learning at 2.6 (48% rated 3 or above).

Transcript Themes

This series of presentations stem from several searches which I carried out in the process of using triangulation as an analytical tool. The first search, predetermined code categories, grew out of analytical codes taken from Patton (1990) and can be found in Appendix D-1.

During this search, I explored specific code combinations as a means of triangulating the data

31 As mentioned previously and further explained later, triangulation has been a guiding force in the data analysis for this project for as Fielding and Fielding (1986) suggest “...triangulation increases the researcher’s confidence that the findings may be better imparted to the audience and to lessen the recourse of privileged insight ... by putting the researcher in a frame of mind to regard his or her own material critically... for in research if different kinds of data support the same conclusion, confidence in it is increased” (p. 24-25). While I appreciate that “triangulation is no guarantee of internal or external validity... the real target ...is quality control for the researcher” (Hammersley and Atkinson, 1983, p 198), it is from this perspective that the reader is presented with diverse sources of data and forms of analysis. It is hoped that this will increase both the readers ability to assess conclusions presented later and to increase confidence in conclusions as a result of the above mentioned “rules of conduct”.
through various searches to determine referent themes for later analysis. The final search, emergent code categories, refers to those categories of comments that grew out of reviews of the data with no agenda attached.

**Predetermined Code Categories**

The comment categories grew out of a review of *The Ethnograph* searches for the predetermined code categories indicated. As the reviewing process continued it became useful to further categorize the “categories”. This process of analyzing the data and refining descriptive categories was intended to create a representative picture of the experiences of this particular student group. The numbers following each theme represents the frequency of the comment. The results of this manual search have been labeled with a descriptive title as that is how I approached the task. The reader is encouraged to disregard these labels should they prove distracting.

**Learning context:** In reviewing this predetermined code group, I discovered these themes in the data: learning (41); instructor (27); passive learning (21); lecture (21); group work (19); application (19); outcomes (16); expectations (11); role modeling (9); feelings (8), and power (2)

**Group Climate:** The comments here indicated a passive learning environment (6) which was marked by a minimal indication of group cohesion (3)

**Learning Outcomes:** Comments found in this category spoke to the quality of learning (8); the nature of the learner’s need (5) and the importance of application oriented learning (4)

**Student Ideology:** The majority of comments were on the role of marks (9) and feelings (9) in learning; the effects of perceived power on learning (6); and, the predominance of a passive style of learning (6) which is affected by students concerns about speaking (7) and the teaching style presented (6).
Perception of Instructor: These themes emerged out of a specific review of comments coded as Participant x Instructor (P x I): feelings (17); learner reaction (14) teaching style (13); application (9); teaching impressions (8); change (7); feedback to instructor (6); notes (4); lecture (4); reflection paper (4); evaluation (4); and, role reversal (4); learner need (4); speaking (2); and, interest (2). Within this search, the highest comment frequency from each student transcript were: Student - Feelings (13); Discuss 1 - Teaching Style (5); Teaching Impressions (5); and, Discuss 2 - Learner Reaction (12) and Application \
group work (7).

Emergent Code Categories

In the final search, the researcher identified these emergent themes in the student transcripts:

Quality of comment: The majority of comments were negative in nature (75) complemented by some positive remarks (46). One student noticed this pattern in her own responding and explained "I hate that ya’ know, I don’t want to be totally negative. It’s easy to talk about the negative”. Another student explained “...its just...he’s a really nice person, right...my only beef is with his teaching”.

Reflection: The emergent code included several categories of comments. Comparison between the participant teaching style and the instructor’s teaching style (39). Comments which referenced reflection in theory or practice ranked next (31) followed by references to the reflection assignment specifically (16).

Group dynamics: The category is defined by two main occurrences. While transcribing the discussion groups and re-reading these transcripts, the researcher began to notice a pattern in the nature of the discussion. The researcher created the categories group consent (37) and group process (24). Comments or occurrences that indicated looking for approval from members of the group were coded as group consent. Comments which reflected more of a dialectical exchange used to clarify understanding (this was the initial label given by the researcher) were called group process.

Learner preference: Once the researcher had completed coding, she returned to tally and organize the data into a reduced, comprehensible mass. At this point, the researcher began to notice patterns in the coded categories themselves. This category combines the following comment categories: application (34); group work (22); lecture (19); involvement (16); negotiation (9); and, preferred (8).

Learner experience: This comment category grew out of the observation of a pattern connecting the emergent codes: workload (15); cognitive (14); competition (13); marks (11); and goals (11). These comments were perceived to speak to the nuances of the actual learning experienced by these students.
**Learner contribution:** This category refers to comments which described the dynamics of students' contributions to class and includes the codes: speaking (36); change (18); passive (13), and power (7).

**Learner feelings:** This category describes the emotional tone of this learning experience for this group of students and grew out of the codes: relationship (21); audience (10); boring (10); recognition (7).

**Questionnaire Comment Summary**

The information which follows was provided by the student participant as further commentary on the survey completed at the end of the two video taped classes. The reader should note that one of these taped classes becomes the focus of later discussion with the third party viewers and the professor as well as the researcher’s focused reflection. The comment frequency is presented below for the reader’s own assessment. A descriptive title labels the nature of the comments within each category. All descriptive labels grew from the comments within the categories and are intended to clarify the nature of the data.

**Contribution to class:** Majority of responses (21/20 = Class 1 comment frequency \ Class 2 comment frequency) indicated that students didn’t feel invited or comfortable speaking. One student said “...I contributed when I had something in common with the instructor” (1). The majority of comments indicated that the students feel “more comfortable in smaller groups ...[or].... less comfortable in formal lectures” (25\23). Several students indicated a lack of confidence with the material (3) as an inhibitor of speaking.

**This Learning Experience in relation to other classes:** Some comments indicate that it is about the same as other classes (13\7) and others indicate that other courses are better (7\8).

---

32 Note the use of the notation (21\20) throughout this discussion. This research is based on two class tapings. After each taping, surveys were completed by students and the professor. The results found here were averaged over both tapings or reported as noted above (21\20). This represents the frequency of student comments as follows - class 1 taping \ class 2 taping. One of these tapes was later shown to the third party viewers and the professor for further reflection. This information is presented in chapter four under the headings The Third Party Perspective and The Professor’s Perspective.
Students indicated more group work in others (5\7) and more applicable information (2). Interest in content was a factor for students (2\4). Comments indicated that this course was better than others (1\3) and one student indicated positive learning from the reflection papers.

**Interest in class:** The majority of comments indicated that liking the content or topic affected their interest in the class (14\14). The frequency count also revealed that some students enjoyed the class more than the text (0\6). Applicability ranked next (5\5) followed by an acknowledgment that the content was difficult to understand for some (5\2).

**Student generated motivation:** Comments outlined the contributors to this group’s motivation level: enjoyment of the topic or subject (15\15), desire to do well (7\4), preference for student driven instruction, work stimulation and group work (6\7), inspiration stemming from personal goal “to be a teacher” (5\3); heavy work load demands (5\5); difficulty understanding material (2\0); and, motivation generated by instructor (0\2).

**Instructor generated motivation:** Students indicated being distracted (3\6) and bored or lost (9\4). Not enough group work (5\6) was followed by appreciation for application oriented lecture (6\1). Several comments indicate that the lecture is too formal (5\3) while others felt the lecturer to be entertaining and motivating (5\2). Some students indicated that the lecture was unstructured (4\2). Students liked the overheads used (2\1) and one student indicated that the class required you to be self motivated.

**Relationship with instructor:** The majority of comments to this question indicate an open, helpful and supportive relationship with instructor (12\10) and several indicate an appreciation for flexible deadlines (1\11). Several students indicated no relationship (7\4). Comments indicated that a student belief that knowing a professor makes a difference (4\3) and a few say they had no reason to approach the professor (3\2). Some students felt unsupported by instructor (1\3) and a few indicated that the instructor’s knowledge intimidated them and other students (2\1).

**Preferred learning environment:** Most of the students indicated that group work and “hands on” role playing were preferred to lecture (21\21). Several students prefer the teacher as a guide and open to student input (8\7). Relevant content and examples ranked next (6\7) followed by flexibility (0\6) and relaxed atmosphere33 (5\4). Other comments include: variety of class presentations (4\4); entertaining and enthusiastic (3\4); small lecture (2); clear expectations; (2) very structured (2\1); small class (1); and, slow pace (1).

**Description of learning:** Students described their learning as: relevant to teaching and practical (13\16); presenting new ideas (7\2); too theoretical (4\1); not “hands on” enough (3\0); not relevant enough (1\3); dependent on topic (3); involving a good text (2\2); resulting from the reflection papers (2\1); too superficially covering material (1); and, plain, old, common sense (1).

---

33 Several students independently defined relaxed atmosphere as no pressure to participate (4\4).
**Changed understanding:** When asked to comment on how the class changed their understanding of the content, students commented on increased understanding (12/6), reinforced expanded on prior knowledge (7/4), presentation of practical tips for classroom (5/4), more alternative view points (2/4), increased confusion (1), and, one student said that group work was useful (1).

**Insights on teaching-learning dynamics.** When asked if they had other insights on the teaching-learning dynamics, the majority of students did not respond to the question (19/18). Those that did indicated that: group work was great (3/2); topics related to personal experience are good (2/1); following the text is useful (1); pace of presentation is important (1); more structure is preferred (1/1); workload is too heavy (1/1); good questions were posed (1); too much jargon was used (1); reflection papers were enjoyed (1); and many students indicated that fatigue and stress affected their learning (1).

**Reflection Paper Themes**

I identified themes found in student reflection papers at two points throughout the term. The first set of themes were identified just after mid-term and the other set of themes were identified at the course's end. I kept running notes on the reflection paper themes as I graded the papers over the term. These notes were formally articulated at these two check points. The process of reflection was very much the vehicle for this articulation. The sections to follow elaborate on the themes identified.

The themes identified mid-term reflected a recognition for the importance of marks as a motivator of learning was a prevalent theme in the students' papers. Many papers were devoted to discussions related to the impact of receiving marks on the learning experience. In line with this, the researcher noted that students often used the papers as a vehicle to vent frustrations and other emotions related to their learning experience.

Although the students discussed this course, they also discussed other courses, other programs, their own teaching experience as well as their early experience in schooling. The
students would look at present and past learning experiences through the educational lens they were being taught in class. Students often commented on the reflection papers themselves in their papers and frequently spoke of experiences which I labeled *a-ha experiences*. I noticed an increased frequency of these articulated experiences as the term progressed.

Students indicated a preference for student driven instruction and the use of some form of small group work in their learning as an enhancer of learning. Students began to compare the instructor in this course to my teaching style as I relied more heavily on small group work balanced by lecture. Students articulated some frustration with the program in that professors often gave similar deadlines. Their learning experience seemed to be tainted by an extremely stressful workload in this course and the program in general.

Themes common to the reflection papers by the term’s end indicated a great deal of competition among students for marks and a general student concern that lower marks don’t necessarily mean less learning. An increase in the quantity and quality of the students’ cognitive processing of ideas presented in class or in text was evidenced in the latter half of the term. The reflection papers again provided a forum for the emotional processing of learning in class as well as the students’ experiences as teachers.

An increase in the frequency and quality of comparisons between teaching styles demonstrated by me, the instructor and other instructors was also evidenced in the latter half of the term. I also noted more reflection on the “self as teacher” and personal *dilemmas* encountered in their teaching practice, learnings or personal life. A noticeable shift toward

---

34 Turgent (1990) spoke of those peak experiences in which insight was easily accessible as *a-ha experiences*. 
looking more philosophically at the relations between self as learner, parent, partner and/or teacher as explained through the language of the course content.

The Professor's Perspective

For the classes surveyed, the instructor indicated that this class compared with other classes he taught and felt that he had created an “effective learning environment” which had encouraged useful learning. He rated student contribution at 2.6 \(^{35}\) (averaged over two taped classes) and rated student interest at 3.2. Student motivation was perceived as 3.0 and amount of student learning was felt to be 3.0 with transformative learning averaging 2.6. The instructor rated his/her relationship with the student(s) at 2.9.

Predetermined Code Categories

These themes were extracted from the transcripts of two interviews with the instructor. A search of the below listed predetermined code categories revealed these comment categories:

Learning Context: this category describes comments which seemed to revolve around the context in which this learning was occurring and was based on the following comment categories and frequencies: program\ideology (15)\(^ {36}\), university education (9); departmental considerations (4).

---

\(^{35}\) These averages were established through a series of survey questions using a 5 point Likert scale.

\(^{36}\) The reader is reminded that these numbers represent the number of times the instructor made reference to these topics.
Teaching: the comment categories under this heading appeared to speak to the instructor’s reflection on his own teaching and was based on the following categories and frequencies: behaviour (12); philosophy (7); choices (4); goals \ interests (2) and experience (1).

Current Class: These categories revolved around the classroom experience itself and included: group (14); course (5); student feedback (5); and researcher (2).

Reflection: this heading included comments on: improvement \ reflection (8); outcomes (5); change (2); and reflection papers (1).

Emergent Code Categories

This search included all instructor transcripts and revealed these code categories: goals (18); integration (3); group process (13); level (3); preparedness (7); passive (3); role (4); learners (3); anchors (4); change (3); dilemma (3); and, authority (2). A series of specific categories were also identified from the data and are listed below.

Stated Goals and Objectives: these include: (1) to develop research skills; (2) to provide a conceptual vocabulary and to encourage play with these words \ labels; (3) to provide role model of verbalized self instruction; (4) to increase students’ comfort with risk taking; (5) to encourage hard work from students; and, (6) to encourage students’ to step over the line between fantasy teacher and real teacher - this last goal was identified as a hidden goal.

Perceived need for improvement:- This category of information included teaching areas that the instructor identified as needing improvement: tendency to wander during lectures; lack of preparedness; more student generated examples; limited knowledge base in this area; pace and, possibly more content.

Perceptions of student group: This category of information includes terms which describe this particular student group from the instructor’s perspective. Terms used to describe the group include: “atypical”; very aggressive; quite negative, tired; highly competitive; non interactive; extremely hard working; high ability; “driven and drivers”; highly committed to learning, overworked \ hardworking; and, the instructor noted that these students have “chosen” this field due to a desire to teach, that is, they want and are preparing to be teachers (this was stated as a quality not always present in previous groups of Education students).

Context considerations: These issues were identified as factors which were external to this particular course yet exerting an influence on the students’ learning experience in this course: poor communication between instructors teaching this group of learners; trend of more able students entering; group dynamics associated with block learning; course of secondary interest to instructor; very demanding time schedule; and student impatience for feedback (or “affirmation”).
had feared, i.e. was OK, class was moving a bit slow, but did not wander, fair variety of techniques. More student involvement would have been nice”. Instructor indicated that his teaching style has not changed since the video viewing. Note this viewing occurred 8 months after the original class taping. (2)

Feelings before class taping: “Slightly uneasy, 50% of material offered was new .... that is, not previously taught by me....rushed but moderately well prepared at a conceptual level, first time most of this content taught; some dis-ease” (5)

Feelings after class - did they change?: “No, still feel more examples and better links to application needed I felt that class was better than i feared \ expected” (5)

Expectation: Indicated that he frequently sees himself on video and has learned that he should monitor speed and comment use. Explained that he is biased “I think (and have been told) that I am at least an adequate and maybe even a good teacher ...I have also experienced good rapport with students - I did not start [video viewing] with a negative expectation” (2).

Usefulness of information: “moderate to high - content foundational ...area of concept learning and info processing currently topical and likely to continue to be...high - need vocabulary \ need to see links between student learning \ thinking and teaching” (4).

Changed understanding: When asked if the class changed his own understanding of content, he responded “I always learn from my lessons .. class demonstrated the material and model presented .. I will check myself using the model offered at the end” (4)

Other insights on teaching-learning dynamics: “Students are most motivated (learn \ ”own” more) when they offer and do more (answer \ exercises \ group work, etc) ... I should slow down ...I always feel too rushed ... maybe I do not trust the students’ ability to integrate” (4)

Student learning relative to other classes: “about the same ....these people are quite “professional” and serious about quality teaching ..similar again, a bright but very quiet class”. (4)

Student participation relative to other classes: “about the same this group is more content or ‘what’s the answer driven’...definitely lower in terms of risking or volunteering answers. I’m not totally sure why”. He continued to explain the above differences in this group compared to previous Education Student groups as follows “(1) contagion in group, lots of discussion expectations (2) very competitive (3) moderately large group ~30... Group conformity \ competition, marked concerned.”

Student contribution: When asked to explain reasons for contribution, instructor said: “Too much presented information .. class also tired (end of term)...Pressure they felt and pressure I felt (end of term)” (5)
This reflects my own perspective for the instructional style offered by this professor. Have been categorized and labeled, as with the categories previously described. The categories
then a single class and was completed only once on the final day of the course. The comments
different from the other participants in that the instructor was to comment on the entire course rather
questionnaire completed by all participants in this study. The purpose and limits of this data
Additional data was derived from comments made by the researcher to the same
rated perceived instructor interest at 3
learning as 3. I indicated an inability to comment on the degree of transformative learning and
reflection papers. The rate student learning as 4 and based on class observations she rated student
was rated at 4.5 I specified two ratings for estimated amount of student learning. Based on
as 4. The degree to which the instructor had a helpful and supportive relationship with students
4. I acknowledged an inability to rate student motivation and rated instructor motivated learning
[lower scale as other respondents. I rated both student contribution and student interest in class as
Overall, I rated the instructor more highly than did all other participants. On the same
that I very much fell that this learning experience was useful to the students
class. I felt the educational offerings to have created an "effective learning environment" more
classes which I have experienced. I did not experience a change in feelings before and after the
generated through the use of this software package. I indicated that this class was similar to other
paper themes, general impressions of the course, and the ethnography memo on the data
This section includes the following data: questionnaire comments, summary, reflection
The researcher's perspective.
have been created to explain the phenomena observed as the teaching-learning dynamics for this course. These observations have been filtered, as always, through my personal meaning perspective or vantage point.

Preferred teaching-learning style: Comments in reflection assignments often revealed an appreciation for the instructor's style, enthusiasm and contextualizing (1). I defined my preferred teaching style as a combination of theory and practice (1) and noted that the course could have been more practical in nature. I explained my preferred learning style as lectures with visual aids, theoretical discussions which contextualize (1) and described my feelings prior to completing questionnaire as "curious as to outcome of research, interested in content... I enjoy listening to this instructor and learning" (2).

Student contribution: Explained student contribution as follows: "many tired due to noon class... many have mentioned shyness - fear of speaking in class in reflection papers... may be related to students’ reference to being nervous of making mistakes (evidence - reflection papers observation) ... role plays create more interaction due to smallness of groups". When estimating amount of student learning, I rated the instructor at 4 - based on student journals and 3 - based on classroom behaviour of students... also noted that it is difficult to measure this. I indicated that some students appeared to have experienced transformative learning throughout the course but did not explain this further.

Insights into teaching - learning dynamics: I explained how this class has changed my understanding of content and cautioned myself that "... there's a danger in assuming an audience... this course has enhanced my understanding of the teaching-learning dynamics. Importance of small group work and bridging theory and practice gap".

After the course had ended, I again used the processes of reflection to further identify themes evidenced over the duration of the course in general. In particular, these indwelling sessions focused on the student group and the instructor. I acknowledged that the students were "seemingly overworked". The current course was described as "very demanding" and the student group was described as "a very competitive and hardworking" group of learners. A clear preference was indicated for "practical, ‘hands on’ learning experience and I questioned whether this preference in teaching style was “filled or created by researcher’s presence?”. I also indicated the presence of some student intimidation by the course content.
The reader is reminded that this number is averaged over the three views' responses.

Evidence was 2. Perceived instructor interest was rated at 4.5.

Learning observed, the viewers averaged 2.5 and fell the degree of transformative learning relationship with the instructor was rated at 3.7. When asked to estimate the amount of student contribution to the instructor - generated motivation question, the presence of a helpful, supportive teacher was at 2.7. The viewers did not respond to the instructor at all. If student interest and motivation each to be 2, the viewers rated perceived student involvement at 2.7.9 and felt student interest and motivation each to be 2. These viewers did not believe that the instructor had created an "effective learning environment."

Instructor's teaching style was defined as evidencing a heavy reliance on the lecture format and learning and well being and was perceived by students as fairly approachable and helpful. The learning process and the concepts presented appeared consistent with the students. The instructor was described by all perspectives as demonstrating an enjoyment of the

Third Party Perspectives

The instructor often speaks over students heads [as instructor often speaks over students' heads] or moved beyond where students were located. The use of O-A approach [as instructor often speaks over students heads] is evident in the instructor's teaching style, perceived as evidencing a heavy reliance on the lecture format and well-being. The concepts presented appeared consistent with the students' perspectives.
Each viewer acknowledged limited observations due to the video tape angle itself (all participants confirm this limitation). Each viewer indicated a preference for more interactional or active learning and teaching in which teacher guides students through active engagement with material. All participants acknowledged that this preference biased their reactions to the teaching style demonstrated in the video.

All third parties indicated an initial curiosity and interest in this research. One of the viewers expressed “excitement that someone was doing this kind of research”. Viewers indicated mixed degrees of interest in the video. One described interests as occurring in “peaks and valleys” another expressed an interest in the style demonstrated and another expressed a dislike for the didactic style observed and presented it as a source of frustration. This viewer explained that:

There were times when I felt like stopping the professor and say - ‘This class is not prepared, why not give them something to do [referred to the professor giving guided questions] to motivate their learning. It’s the kind of training students are getting. Education students at MUN are encouraged to be passive.

When asked about motivation, one viewer suggested that “the lack of student voices indicated a lack of motivation to give answers”. Another viewer repeated his/her view that “instructor doesn’t challenge students to comment but instead the professor gives it to them”. The viewers described observed participation as follows “similar to high school”, “...many profs at MUN do not understand that many students need to hear and speak to learn...profs need to demand action from students so that they may become active learners”, “...sometimes it has nothing to do with instructional design and is wholly dependent on class dynamics”. One viewer expressed a concern that:
I'm not sure if students learned anything that will help them with their practice... probably learned from reading the text... there were so many chances of getting students involved with this material. But they were lost, students may go home, read the chapter, pass the exam and then, when they go into a classroom be lost as to what strategy to use. (4)

When questioned on how the class may have changed their own understanding, another viewer explained:

Nothing in the way of content but it reinforces for me the need to motivate students by challenging them to use this information. Take a risk. Now it is easier not be angry with teachers [in the school system] who model this in their classrooms. They learn how to be passive students and they often carry this into their practice.

Another viewer concluded the “I know this prof loves his work” and explained that they themselves had experienced learning through this taped lecture.

When asked to explain observed student motivation, the viewers suggested: “they appeared to be really motivated at taking notes”; “with exception of a few comments from students, there was no type of evaluation carried out... students didn’t participate”; “I have little to go on but would suspect that lack of motivation may be related to the presentation of material and the lack of cohesion between the parts presented and the model as a whole”.

One viewer suggests that there appears to be good rapport between students and instructor and described the instructor’s manner as “encouraging when asking questions and open when receiving answers”. When speaking to the student contribution in class, one viewer said “a fair amount”. The other two viewers suggested that the environment was not conducive to learning as it was “too easy to just sit there and listen” which they believed to be a class dynamic that did not really lend itself to participation.

---

40 Interestingly, students often spoke of a fear of evaluation and gave this as a reason for not contributing to class discussion more.
In closing, each viewer was asked to comment on other insights they may have into the teaching-learning dynamics, the responses were as follows:

This teacher puts his whole body into the process as well as the knowledge he clearly holds. He provides many avenues to understanding his style. If you don’t learn in this class, I would be surprised.

Even in the “lecture” method used, there could have been more interaction.

The students ‘got away’ with not being prepared for class, thereby proving that they do not have responsibility in their own learning... I think we missed the boat with this group. Although two of the three viewers appreciated the teaching style demonstrated in this video, all agreed that the teaching environment could have allowed for more interaction. The data gathered through this research has now been presented. The next chapter, **Descriptions of the Teaching - Learning Dynamics**, explores my interpretation of this observed learning experience.
Chapter Five

Descriptions of the Teaching-Learning Dynamics

What follows are the labels constructed to explain the learning experienced and observed in this Educational Psychology course. As discussed earlier, this research produced a collection of descriptions which have grown out of my own efforts to make sense of the data during this educational inquiry. As this research has relied heavily on triangulation to determine significance, I have defined the themes according to the strength of the data supporting them. Through a process of identifying, comparing and explaining the significant findings from this study, labels, intended to be descriptive rather than prescriptive, were generated and will be defined in this section. Those of greatest significance are discussed in This Learning Experience, which focuses on the particulars of the learning experienced by this group of learners and includes such categories of descriptions as workload; goal mismatch, nature of learning group, instructor feedback, and, the researcher’s presence. The next section, The University Learning Experience, (includes competition and learning; lectures and learning; learned passiveness; and, perception of change) discusses findings of a more tentative nature which, although requiring further exploration and evidence to confirm, are presented here as grounded extrapolations. These extrapolations have grown out of nuances in the data which speak to my understanding of the adult learning process itself. The final section, The Learner’s Need, identifies learning issues which may provide a reflective lens from which to view university learning experience from the perspective of the students who participated in or contributed to this research. Categories found in this grouping are practical knowledge; group work and learning; reflection and learning; and, roleshifting.
This Learning Experience

The instructor described the context of learning as reasonable, acceptable and positive for the students given the structure in which it was offered and the time constraints on both the students and himself. Most students agreed that the course allowed them to be passive which some seemed to appreciate as the course was offered at lunch time and they were often hungry and tired. The majority of the learners in this study indicated a preference for more active learning opportunities in spite of a tendency to be passive. This perception was shared by the third party viewers who all agreed that the format could have been more interactive and the professor, himself, acknowledged this limitation. My response to this observation was one of initial surprise as the teaching style demonstrated represented my preferred learning style. My journal writings reflected a preference for the professor's teaching style and a surprise when the preference for group learning proved to be the strongest evidenced theme in this research. My surprise with the presence of this theme, combined with the consistency with which it was found across perspectives, lends validity to its descriptive power and points to an area worthy of further consideration for teaching and research practitioners.

Several comments indicate that the events of this course were similar to other experiences of these participants within the Education Faculty and university learning in general. Just under half of the student group (42%) indicated that this course was similar to other university experiences while 35% reported a dissimilarity. This might suggest that the findings of this study may be indicative of a larger trend in university learning. Further research is needed to validate this finding. The instructor in this course explained that this particular program has become increasingly selective of the students who enter. This, in turn, can explain the instructor’s
perception of a potential trend. Several student comments made reference to the professors within this program (at least, those teaching the courses offered to this student group) as not aware of what each other is doing in the classroom. The professor in this course also believed that lack of internal communication may have contributed to the heavy workload of students and possibly to a sense of fragmentation for the students' experience of learning.

**Workload**

Students, the instructor and myself all agreed that the workload in the course and in the program was demanding. One student explained the effect on her learning:

> [long pause noted prior to speaking] Yea, I would like more time to explore but I think sometimes” [voice quiets significantly] lessening the workload would... would have been ...[long pause] something.

The professor perceived a similar quality when he explained:

> In part, they are so driven because of the workload and fullness of time, that they don’t have [time]...they have to slot a reflective time in, I’ve got twenty-two minutes to reflect and now I’ve got to get on with work. So I think that’s a little bit where they are. (2)

I referred to this theme on many occasions throughout my field notes. In particular, student responses in reflection assignments often made reference to a demanding workload as a reality of their learning experience and an area in which they felt not heard, both in this course, their program of study and university courses in general.

> This raises the question - "Have the demands on students increased"? - which the research of Kronquist and Soini. (1997) answer in the affirmative. These researchers suggest that the burden on the student has, in fact, increased since university courses have become more fixed. Smith (1994) confirms this reality for local college courses and describes the provincial post
secondary system as fragmented. He explains:

A student may be dealing with six or seven teachers in a semester, none of whom have any intimate knowledge of what the other is doing. The student gets the pieces without ever seeing the connections among the parts. (p. 15)

The professor in this study spoke of a lack of communication and collegiality which may, in turn, have increased the students' workload and contributed to a fragmented experience of learning.

The students in this research often spoke of a frustration with professors not knowing what other professors are asking them to do. Scott's (1997) research revealed similar findings indicating that the experience of active, autonomous, critical learning was not commonly experienced in university classrooms.

Smith (1994) believes this experience of fragmentation and lack of identity to be greatest in the discipline of Education because it is “seen as an extension of other professions” and, as a result “interconnections among subjects are not frequently made and this creates a situation where teachers are intellectually isolated from their counterparts” (p. 14). Increased fragmentation of programming may have contributed to the students' sense of “hurriedness” evidenced in this class.

Given that this research was done within the Education Faculty, further consideration of the presence of such fragmented experiences and its impact on student learning is needed to clarify the accuracy of this general statement as well as the reasons underlying the phenomena. Whether or not “the demands on students have increased”, this research and other concurrent studies point to a need for an increased awareness of the students' experience in university learning. The extent and inner workings of this experience can only be determined through additional research.
Goal Mismatch

Most students in this study indicated their learning goals to be undefined and several responded that they had never thought much about it. Those students who had the more defined goals spoke of a need for practical knowledge and active learning activity. This appeared to be both a specific goal of this course and a more general goal of their university learning. The emphasis seemed to be on learning the "how" of effective teaching practice which is a reasonable expectation in a practical program like Education. The instructor’s stated goals for the course included (1) to develop research skills; (2) to provide a conceptual vocabulary and to encourage play with labels to define teaching experience(s); (3) to provide a role model of verbalized self instruction; (4) to increase student comfort with risk taking; (5) to encourage hard work in students; (6) to encourage students to step over the line between fantasy teacher and real teacher. The professor described his role as “to have the students take over my job”, that is, to see the students reach for and exceed his level of knowledge in the area. Given the students’ need for practical, active learning opportunities, there was significant resistance to the instructor’s efforts to “provide a conceptual vocabulary” as this seemed beyond some students’ level of understanding. They wanted practical knowledge and did not always see the practicality of acquiring descriptive categories to define and understand the teaching-learning dynamics they would be creating and directing as practitioners. Although the instructor believed his teaching to be practically grounded, the students seemed to be working from a different definition of practical knowledge.

To use Bloom’s (1956) taxonomy, the students appeared to be working at the level of application while the instructor was teaching to the analysis and synthesis levels of educational
By the instructor to deliver the message. Several students indicated language and differences in

described in the current study, the gap identified may also be related to the language register used

the teacher and the students. This explanation could apply equally well to the experiences
differences in understanding may have been related to differences in the language registers used by

Finance Programmes in England. Here, the researchers noted evidence suggesting that

Roberts et al. (1992) noted a similar phenomenon in their exploration of business and

learning gaps observed.

However, there is evidence to suggest that there may have been other factors contributing to the

To a certain degree, the gap described stems from the above described reality of teaching.

They shouldn’t be taking this course

know if there’s a problem. I think that’s what teaching is about. If there wasn’t a gap then

and in most cases when they found out, they accepted. So there wasn’t a gap in… I don’t

mindful, I don’t know what it means yet, but I will tolerate it long enough. I’ll find out

is important, why bother? They may have said, I don’t see how this fits in. I’ll be open

think about any time was there for example, students saying things, let least not to me. This

both moving in the same direction but have different degrees of movement. So I don’t

wouldn’t want to say it was different. I think that gap is the gap. I think the gap… I

would expect that there would indeed be a gap and I think the gap, although the gap… I

as follows

both the instructor and myself. This outcome was expected by the professor and he explained it

conceptual tools to observe, describe, and critique their own practice as well as the practice of

this study clearly indicate this learning outcome was achieved as this student group used these

"tools" of labels to understand and interpret with their own professional practice. The results of

one of the professor’s goals for the course was to provide the students with the conceptual

concepts whose relation to their own teaching experience was not always evident. Interestingly,

experience. They wanted skills and hands on experience,” the teacher gave them words and

97
to the "negative concern" perceived by the instructor. Knowledge (1973) acknowledged the
have contributed to and explained a lot of the learning experience. It may have also contributed
a significant enough gap between student and teacher needs to suggest that this may have not only
experience here. Although it is not accurate to suggest a complete split here, there appears to be
unmet, these needs can have a ripple effect on the teaching-learning dynamics similar to that
for practical learning opportunities are an important element in the learning process. When
information, efforts to assist the learner will be in vain. Criterion suggests that the learner's need
interestingly, Criterion (1992) suggests that unless the learner sees the need for the
professor were operating at different conceptual levels
differences in the educational offerings studied in this research maybe that the students and
learning experience is strengthened. A possible explanation of this presence of a perceived
176) which stem from the social world in which humans live, the idea that language shapes
interpretation of this phenomenon of language difference is included in the general "language habits" (p
registrars as described by Roberts et al. (1992). If we were to accept Short's (1992)
student transcript data. Here too, there was evidence of a possible difference in language
increase in complexity of the task to transcribe the professors' interview compared with the
created a distance between the student and teacher. My analysis notes included many references
professor's need for an audience. Further indicators that at least for some students, this gap
between themselves and the professor. One student's interpretation of this difference is the
The students perceived this difference as stemming from discrepancies in knowledge stores
continue on
out...line it's obvious he has a good grasp on the material. Like, he knows the stuff inside and
like he doesn't come down to our level. The did, even need commensurate us to
importance of the learner’s need to know why learning is occurring. Although there was a clear indication of a learning gap between the teacher and the student group, I wondered whether this gap was simply filled by my teaching presence (my teaching style included a group work component) or was actually created by my teaching presence in this classroom. In either event, the students clearly express a desire for more practical learning opportunities.

Nature of Group

The instructor viewed this group as “atypical” in comparison to other groups with whom he had worked. He explained that the students came in with a “negative set” and, although he noted that they calmed down considerably with time, he perceived them to be initially “very aggressive” and “quite negative seemingly in their attitude”. This perception was confirmed by the 46-78 frequency of positive to negative comments in the student transcript data and was described by one student as “I hate that ya’ know, I don’t want to be totally negative. It’s easy to talk about the negative”. The professor described the students as “very testy” and believed that the students “deemed...voiced...viewed [required activities] as too demanding...too heavy” without knowledge of what they were. Although this “negativeness” ebbed as the course progressed, the instructor felt that it affected the group dynamics and believed it to be partially related to the nature of the block learning experience - that is, the experience of going through a program with the same student group.

Although initially negative, this particular group was made up of students who were also perceived to be very bright and very professionally committed. The professor described the students as very able, intelligent people who, collectively, were more “irrationally competitive”
than previous years. He explained that:

They have almost to a person, I have read about half of the assignments now, almost to a person have done too much work for the mark value... they would compete for the sake of competing.

This observation was confirmed both by my observations of the group and the group's perception as seen through the eyes of one discussion group member:

I think competitiveness as a whole. Like we all, it's not nitpicking or fighting between individuals. Like we compete together for the prof. researcher noted an energetic chorus of agreement to this comment]

The students clearly indicated that they competed for the professor's recognition, usually in the currency of grades and some spoke of this competition as a source of motivation.

One student believed that within this climate marks became the source of motivation.

It's too bad that we probably would only be really interested in doing that (extra exploratory work) if it was for marks. Its too bad to say but with the time pressures on us that's why.

Students also related this reality of their learning experience to future prospects for graduate study or a desire to "get the credit". It would appear that the current practice of grading may set certain parameters around the students' willingness to take the risks associated with contributing more freely to their learning, both in the classroom and in their self-directed work efforts.

Several journal entries and individual discussions resonated with the same sentiment. High marks are a scarce commodity and, in some cases, direct students' efforts. It is also worth noting that the students did not see this as a problem amongst their peers. Students explained that they had good relations with each other. These students seemed to view competition as a normal part of their learning experience but they
Stromman, 1996) These students were "coming of age" in the shadow of the baby
instrumental attitude toward learning as a response to a new work order (footnote and
in the today's labor marker. This reality may have fostered the development of an
jobs) have created a need to attain advanced educational levels to enter and remain active
who reduced employment opportunities and increased competition for scarce resources
demographic positioning. All of these learners fall within the Generation X cohort for
labor marker. The "diversity" observed in this group of learners may relate to their
This instrumental attitude observed in students may also be linked to shifts in the
program approach to learning

It would seem that students are adapting to a highly competitive environment by developing a
competitive. Very bright and able students very committed to their profession
that is people who are deemed "high achieving" motivated and highly
We have in this faculty, been choosing more and more able students. The production of
and explained this

and the instructor in this teaching, in this program, perceived a similar phenomenon
leaves a description of an instrumental learning attitude emerging in university
This describes the attitude evidenced in this study and lends credence to Kronz's and
have earned some portion of the final mark at some points along the way
like to have some feedback through the term and enjoy the "feeling" of knowing I
learns is encouraged and stimulated this way. However, I think that I, as a student,
I think that his point is acknowledged that in-depth understanding through the
methods rather than grading, while
Program. This student in response to a lecture given on the use of alternative evaluation
experience seems to be shared by a graduate student in the graduate teaching pilot
explained the composition is for marks rather than against each other per se. This
boom and, to survive in a climate of scarce resources (jobs) - coped by learning to compete in an increasingly competitive world, both inside and outside the classroom.

Ironically, another noteworthy quality of this group was a discomfort or an unwillingness to contribute to classroom learning which in turn meant a teaching-learning dynamic marked by passive involvement. Explanations given for this ranged from the noon hour of the class to the most commonly heard lack of desire to speak. In spite of this description of a competitive group, the classroom experience was marked by a perception of inactivity which was presented as a “normal” experience by these university students. Although not necessarily generalizable beyond this learning group, given the amount and variety of supporting evidence found in this study, it may warrant additional research attention to determine the degree to which students have this experience throughout other university disciplines.

**Emotional Tone of Experience**

Student responses indicated that their emotional reactions to the instructor and the offered learning may have colored their experience. Some students felt the instructor was not caring and many others felt that they were not recognized enough; however, most felt the instructor to be supportive, helpful and available. Several students mentioned that the instructor’s non-threatening manner was appreciated. While some students felt “stupid” in comparison to the instructor’s knowledge, most adamantly indicated that other professors were significantly more intimidating. Several students commonly made reference (in reflection papers, questionnaires and interviews) to this professor as being better than others because “he listened” and “he did not embarrass us in class”. 
Some students discussed feelings of frustration and a sense of not being heard. This experience of frustration was evidenced in their reflection papers as well as during the third party data collection. One of the third party viewers demonstrated this frustration throughout the video viewing and explained that she believed it was “too easy to just sit there” for this student group. This learning group evidenced an emotional tone which appeared to have an impact on the learning experienced in this course. A class discussion of the Graduate Teaching Pilot Program revealed a similar emotional tone when discussing graduate students’ reactions to being treated like “undergraduate” students. It seems that undergraduate learning evoked emotional issues for some graduate students. This was evidenced in the third party viewing session as well.

A study of four British post-secondary classrooms (Roberts et al., 1992) identified a similar phenomena and suggested that “even relatively weak students can do well if they feel the teacher respects and cares for them” (p. 6). In light of this emerging trend, it may be appropriate to further consider Adams (1993) warning against the creation of “isolated academic patients” (p. 12) whose sense of alienation can undermine their learning. Smith’s (1994) concern for an increasingly fragmented experience of learning lends support to Adam’s claim. Kronquist and Soini (1997) explain a similar phenomena when they suggest that students view university “as a massive and bureaucratic place where they did not receive much attention” (p. 1). Tending to the emotional experience of students may help direct educational efforts to improve university teaching practice. This research suggests that this emotional dimension may need to be factored into the teaching-learning dynamics. More research attention is needed to clarify the extent of this learning experience at university.
Preferred Learning Mode

As mentioned earlier, the majority of students in this group (21 out of the 26 students surveyed) indicated that group work was their preferred method of learning. Comments from various sources confirm this preference. One student explained that group work “made it real cause it got you into certain situations”. Others describe group work as “something different than straight lectures” and still others feel it to be more exciting than lecture “because it gets you involved...[and]...is more fun”. Several students noted that other courses in their current year of study offered more opportunity for involvement and many students noted that their learning experience in Education provided for more active learning opportunities than in other disciplines

Other data sources supported this idea that students were not active enough. The third party viewers all felt that the instructor could have designed the lesson differently to accommodate for more active learning opportunities. An early researcher analysis log entry noted an emerging pattern, during the student small group discussions, as a tendency to very naturally engage in dialectical exchanges during which understanding would be clarified or consensus would be reached and the question posed would be answered. This learning group appeared to benefit from small group work as it may have facilitated a different brand of learning which the students enjoyed and viewed as fairly atypical in the university classroom. As one student explained, “I find group work to be very useful and would enjoy seeing more of it throughout the course”. Students commonly extended this preference to other university courses where they encountered it even less. Several students acknowledged a lack of awareness of alternative teaching methods until they began their study of Education.
This appreciation for group work was also voiced by British students (Roberts et al., 1992) and Scott et al. (1997) found that 2/3 (or 66.6%) of the students in their research rated “active learning” as preferred over the more traditional lecture format of instruction yet few of them experienced it outside of the class under study. Cranton (1992) discusses the importance of group interaction and suggests that although not necessarily better than any other method, group interaction works best when the task is to foster problem solving, attitudinal change, discussion skills or complex cognitive learning (p. 102). The students’ comments also provide support for Kronquist and Soini’s findings (1997) that small group work is reasonable in higher education “where the subject aims are as important as the aim of group functioning”. Small group work appeared to address this group’s need for both participatory and practical learning experiences.

Instructor Feedback

The responses indicated that 56% of the students believed that the instructor had created an effective learning environment. The strategies noted here were described as effective: good use of examples; good use of visuals; organized and followed text; enthusiastic and entertaining; knowledgeable of subject, posed good questions; and, open to students. The instructor felt his offering to have created an effective learning environment. Comments made by him included: good eye contact, good response to students questions and comments, moderate to good rapport with students; moved to “see” or monitor the room; fair interaction; clear structure; and, fair to good communication. My observations lead to a belief that an effective learning environment was created through dialogue; continual references to text; and, presentation of supportive role model for students. Two of the three third party viewers felt the professor had created an effective learning environment through the use of: good and multiple examples;
drawing visual model on board and in air; asking questions, exploring answers given, use of overhead; humor; clear; open to student participation and tries to solicit it, and, teaches to whole room. The third viewer strongly felt that the learning environment evidenced in the video did allow for enough active learning opportunities.

The participants offered several suggestions on how to improve the learning environment. Students suggested more opportunities for student involvement in the form of group discussions and activities combined with more variety in teaching strategies. This group of learners identified a need for more content related to primary grades. They suggested that the professor slow his wait time after questions and choose simpler language to describe the course content. Students commented that his lecture pace could have been slower and classes could have been more structured and organized. Interestingly, the instructor perceived the classes surveyed to have been too slow and agreed that more group involvement could have been encouraged using more hands on opportunities, more student input and feedback, fewer rhetorical questions and more illuminating examples. The instructor explained that “less felt pressure by students” (tapings occurred during the last two weeks of class) would have improved the learning environment.

The graduate student viewers suggested that the professor was “too content with passive learners” by allowing students to “get away with” not having to use the information being taught. Other viewers suggested that more probing questions and more clearly defined lessons would have allowed students to work together to define the relevant concepts. My notes suggest that more group work and opportunity to use ideas being learned would have improved the learning environment for these learners. I also noted that more structure might, at times, have kept students more focused. It appears that the majority of participants believed that this environment could have been more structured to allow for interactive learning.
Several positive qualities were attributed to the learning experienced by the students over the term. Most students appreciated the use of reflection in the course and were glad that the offered group work (when I taught) increased their involvement. Students appreciated when the course content and examples were relevant and applicable to teaching and believed that they had enhanced their understanding of the concepts taught. The students indicated that the professor’s tendency to integrate the class discussion and the text content helped their learning and many indicated that this had translated into improved study skills. Although most students indicated a preference for active learning, several students also explained that they still liked the opportunity for passive involvement in the class. The instructor believed that the ability level of the learners contributed to the class as they were bright, verbal, motivated and socially skilled with good peer relations and rapport. My notes referred to the effectiveness of the professor’s text driven instruction and enthusiastic presentation style. Third party viewers agreed that the professor was motivated about the content and explained that he gave concrete examples for most concepts taught. One viewer even experienced an enhanced understanding of the concept of “algorithm”. Suggestions from all perspectives indicated a recognition that lecture as a means of information transmission is sometimes necessary and most felt that it had helped these students learn.

On the other side, students provided feedback on areas in need of improvement. Many students noted that “lectures are boring, I tune out” and most felt that more variety including discussion or group work would help. Some learners believed that the topics were more confusing than necessary and several felt that too much information was offered too fast to memorize. Students indicated that the language used was too “psychology jargon-y” and too theoretical and that class was too routine. The professor felt the students to be too competitive; too unwilling to risk take; too quiet, and, too aware of their peers. I felt that there was little
group work in this learning environment, except when I taught, and that the instruction was, at times, too theoretical from the students' perspective. The third party viewers agreed that the professor could have done more to engage students rather than talk at them and engage in off-topic discussions which sidetracked the whole process. A third party viewer questioned that "...although students may be able to do an exam, can they use the strategies in their classroom or will they model what they have seen here?" This particular third party viewer was highlighting the apparent gap experienced between the offered educational experience and their own learning needs (some of which remained un-named).

The Researcher's Presence

Both the student group and the instructor appeared to have appreciated my involvement in this course. Students seemed to enjoy the variety in teaching style offered by my approach and responded well to both the group work and reflection components of my instruction. One result of this unique teaching arrangement was that students compared my teaching style with the professor's as a means of articulating their own preference. Through this comparison process, students' defined my style as more organized and providing more opportunities for involvement while the instructor was perceived as more theoretical, more lecture-driven and more expert in educational psychology. The instructor described my presence as a benefit to the students and welcomed the feedback that he would receive through this research. During an interview, a student described my presence as a positive thing and several other students described my presence as reflecting their preferred learning style. All participants seemed to appreciate the instructors openness and were excited that this type of research was being done on university
teaching as they felt it was needed.

**The University Learning Experience**

This next section will provide a discussion of my insights in the area of university learning. Although the themes highlighted in this section emerged from the research data. However, additional research is required to determine their explanatory power for the general university learning experience. These themes are intended to describe the learning experienced in this research context, they represent categories of explanation for what I saw, interpreted from this study.

**Competition and Learning**

As mentioned earlier, the instructor noted that the students tended to do more work for the mark value than he felt was required and described this habit as “irrational” in nature. He also indicated that they appeared to have a need, possibly driven by anxiety, for immediate feedback which may have been linked to a need for “affirmation or confirmation of what they were doing”. The professor expressed a concern for this growing trend and explained his belief that students need to learn that:

> They have to both rationally and emotionally see that they have to do good work but they don’t have to keep competing unless that small percentage going to graduate school... maybe they have to compete but even there I’m not sure. I think its counterproductive.

Adam’s (1993) discusses a similar phenomena and suggests that this experience of being “repeatedly and systematically pitted in increasingly stiffer competition against the talents of other students” (p. 13) is related to Block’s interpretation of the “one operating assumption” that the
work was much better than „just learning“. One student explained, „and lectures boring. well
should take place. Some teachers just want to lecture and most students (80%) felt that Group
method was not their preferred learning approach. One student explained that „more discussions
General consensus amongst the students and two third party viewers was that the lecture

Lectures and Learning

accompanying passive classroom behaviour may increase this tendency in students
library or the teacher rather than within themselves (Shor, 1992). If this is the case, the
modern classroom may possibly be that students come to see knowledge as stimg within the
contributing to the passive nature of his group. A negative outcome of these reactions is the
explained a desire to avoid the information rendered on the quality of their participation as
which she was marked „held her back from speaking freely in class” and several other students
would be judged. One student actually used these words to describe her experience of a reality in
often held them back from speaking. Students were frequently afraid to speak for fear of how if
need to find „the best answer possible” or not at all and explained that fear of negative evaluations
reflect in their mark in the professor’s eyes and in turn, their grade. Several students indicated a
students said that they were often quiet in class as they were uncertain how speaking would
Students made several references to the impact of marks on their experience. Many
Learning
may have other repercussions. Students become complacent and instrumental in their approach to
academic study” (p. 13). It appears that student competition, although traditionally encouraged,
some, I do overall, I like more involvement even though I don’t get that involved myself’.

Several students identified group work as helping them get involved and one student acknowledged “it’s true that there is some information, we know, that you just have to get across but sometimes … you need something to do, right?” Many student comments indicated a belief that there was an over reliance on the lecture method in university classrooms and suggested that teachers use group work as “a way to make learning meaningful and interesting” One student explained that “I wish [the instructor] had used less lecture format, that’s all. That’s my only beef with teachers” Another student described it as follows:

I think we’re getting spoiled this year … not spoiled, but the professional year, its different I think from every other year in university. We do all these excellent things in other classes and … then … we’re put back in a lecture.

Students clearly identified a learning need for more interaction. Third party viewers also clearly indicated a need for more activity in this classroom experience and each said that they thought this lecture class could have been designed to be more interactive.

As a student, I have generally preferred lectures and have found group activity did not always provide me with meaningful learning. As a trainer, I have developed a style which relies on group work as this is the norm in adult educational theory and practice. However, this research as well as my practice of evaluating my teaching from the learner’s perspective have made me more conscious of the importance of periods of activity for learning. Not only did the lecture method provides limited benefit to students but a graduate teaching student wrote this comment on her own experience of teaching and learning at university:

I had expended so much time and energy rethinking my lecture and came out feeling unappreciated. But that is not why I am there, I told myself, I have yawned and doodled in lectures before. Most of those students were there to fulfill a requirement. The subject being taught, to the vast majority of them, is almost peripheral. I don’t think that I could go through my entire academic teaching career face-face with that situation. I guess that I
am making a case for the future which will involve seeking alternatives to the straight lecture format which is a very practical response to a personal experience.

It appears that the practice of university teaching may be in need of a reality check. Shor (1980) describes a phenomena similar to this *instrumental attitude* mentioned earlier as the tendency for students to be passive and explains that a succession of similar educational experiences have:

Left them [the students] with 'institutional personalities'. They have accumulated injured pride, fear of failure, need for recognition, self doubt, a cagey watchfulness and unpurged anger. This psychology of defensive withdrawal develops over a long period of time through their institutional transactions. No wonder the classes themselves are so lifeless. (p. 34)

He believes that this reality of current adult education practice discourages both the learner and the teacher. Certainly this research suggests a need to explore university teaching methods more extensively and highlights the importance of the Graduate Teaching Pilot Program as a means of training new university professors. Several students in the Graduate Teaching Pilot Program were appreciative of the opportunity to learn about and reflect on university teaching prior to initiating their teaching practice. This research indicates a need to collectively reflect on the type of learner being created through the traditional teaching-learning dynamics used in university classrooms and to explore how well this meets the needs of the modern adult learners.

**Learned Passiveness**

It would appear that the academy’s reliance on the lecture method may be an area worthy of reflection and further exploration. Each perspective in this study identified a passive learner involvement. Although the noon hour of the class certainly factors in here, it appears that there may also be a tendency in students to be passive. One student explained that “most of the time,
apparent learned passiveness in students' an inadvertent outcome of the traditionally used lecture

culture of school. They are even more to dislike disturbances of their passivity. (p. 196) This
demonstrates that elementary and secondary school teachers appear to assume that passivity is what best fits the
phenomena as follows: "Students are largely passive and at least by the time they reach the upper
also learn to be good students to acquire good marks. (Coodland, 1990) Further explains this
children learn in grade school is socialization not academically. (p. 11). This suggests that students
1992) as beginning much earlier than university and suggests that the most important link that
phenomenon of a passive learning orientation was described by Butterfield (Referenced in Shor
many instances is becoming less of an instructional process. (1992). This apparent academic
a student from the Graduate Teaching Program explain the link the university classroom in
way
always...open...well, what's the point? My opinion is meaningless. Sometimes I feel that...
In most cases, being a university student most of us don't speak our minds
university classrooms and one student explained:

students in this study appeared to accept being passive as a common mode of learning in
area may prove very useful.
causes of a result of the passive dynamics observed in this classroom. Further exploration in this
opportunity for interaction and preference to listen rather than speak. The lack of opportunity could be a
In an initial evaluation from this (or any) class and simply not wanting to "go first". The top
regard evaluation for this included fear of being wrong or a top
involvement was no involvement. "Student explanations for this included fear of being wrong or reading a
involvement as very passive, we just sat there and listened and daydreamed and whatever. There
students acknowledged little involvement in the class and one learner described the group's
we were just sleepy and hungry and all that combined...we're just used to being passive."
Many
method, may indicate a need to re-think university teaching practice. Students in this course seemed to embrace this passiveness while at the same time criticizing the lack of opportunities for interaction. It seems they wanted to be involved but needed opportunities for this involvement offered to them. This may be related to their early socialization of responding to what is asked by the teacher rather than directing their own learning.

Several students appreciated the "relaxed" atmosphere and the ease with which they could relax while in this class as a result of this passive involvement. One student explained:

I've had courses like that before and never thought anything of it until recently...like first year university. They just like to talk, talk, talk and you just sit down and listen and take notes.

A second student confirmed this experience and said "yeah I love that too, yeah, you just sit back and be invisible". This exchange was followed by a chorus of agreement attained through group discussion which ended in consensus building. This apparent relief experienced in traditional lecture classrooms lends credence to Goodland's suggestion that students "dislike disturbances of the passivity". The professor explained that this group of students "never got to the point that they were highly interactive, many classes have chatted more, talked more, integrated verbally aloud more". The third party viewers observed the same level of student involvement. Cantor's (1992) suggestion that learning is an active process, but the lecture method tends to foster passivity and dependence on the part of the learner (p. 125) finds support in this research. The learners in this research, both the undergraduate and graduate participants, described their university learning experience(s) as passive.

Theissen (1985) suggests that this passive dimension to university learning may be related to the endoctrination of new learners within the academic ranks. If he, in fact, is accurately
The student group's apparent perception of change was a recurrent theme throughout the

Perception of Change

useful to explore this area of teaching practice. Sooner rather than later
experience and its impact on learning outcomes. Given the outcomes of this research, it may be

What is needed now depends on further research to clearly identify the extent of this learning
from the commodification of learning itself.

If is within this realm that the teacher has responsibility to reverse this movement away
believe that

researchers avoid looking at it. A graduate student in the Graduate Teaching Program
classroom may have created a culture of passive learning which will persist if educators and

passive pupils walking to be told what things mean and what to do. The university

explain that „for him [Dewey] participation was an educational and political means for students
meaningful connection to their needs, interests or community cultures. (p. 12) Short continues to

students learn to be passive or cynical in classes that transfer basic skills or values without

warning (1992) that „the unilateral transmission of knowledge and rules shies consistory... and

his words „An appreciation of this possibility within the halls of learning lends support to Short's
head. This group's apparent passive learning disposition strengthens the explanatory power of

instructing a pattern in university teaching, university educators and administrators should take
explained that she often did not have the time to speak to the professor regarding her concerns and her need for more negotiation in the class, "and, then, you just take on the attitude, well, it’s not going to change anything". Students frequently commented on this in their reflection papers and expressed frustration related to this learning need. One student drew a parallel with her own work as a fitness instructor and the importance of responding to the group’s needs when she explained:

The atmosphere changes. I’m changing for them and they know that. And everyone enjoys it and, like if he comes in and notices us and the troubles we’re having, then, it would make the class more enjoyable for us.

Several students explained that they felt the instructor was “set in his ways” and that he was not open to changing his teaching style. The instructor himself agreed that he had not changed much over the term or even six months after the course had ended; however, he has since adapted the reflection assignment for his teaching practice. During one of the discussion groups the following exchange took place on this issue:

It’s just that they have so much material to get across. I guess they have so much time so that’s probably the best way they can do it is through a lecture. Just stand up there and...

Another student interrupted: ...some just don’t want to change...

Another student interrupted: ...some don’t want you to feel comfortable with it as well...... they just feel comfortable with it

Yes exactly... [group discussion and consensus]

It seems that university learning has been experienced fairly consistently by these learners. The offered university learning did not always address the needs of these students. This theme is confirmed by several other sources of data as well. Third party viewers felt that university education could be more interactive and some voiced a frustration with the lack of instructional changes in this area. The effect of this lack of change seems to be a sense of powerlessness for
students as one student explained:

I guess, what I mean by power...if you feel that if you pass an opinion or whatever, you know they're not going to listen, so...and it's just as well you didn't say anything. Your words are powerless. There is no negotiation, there's no anything. I hear you and I'll think about it and that's it. And when we get the feeling right from the start, there's nothing going to change, this is the way it is. That kind of way.

While this comment was made in relation to university learning in general, this perspective on change may have shaped not only the students' involvement in this class but also their perception of the instructor.

Shor (1992) suggests that mainstream classrooms exist within institutions which are structured against the empowerment of students. In his earlier work, he explained the pressures acting against change within educational institutions as follows:

There are rewards of being on an "academic pedestal": a sense of power, the admiration of an audience, acceptance by other professors for playing within the rules...there are also burdens: alienation from students, a need to appear formidable, a fear of failing to meet expectations of colleagues and students, constant pressure to put on a good show, the defensiveness which accompanies the exercise of power over others. (1980, p. 84).

Smith (1994) agrees with this perception and quotes Beane's view that "The network of educational elites - academic scholars, state departments of education, certification bureaus, text and test publishers - forms an almost intransigent force that makes curriculum reform seem almost impossible" (p. 27). It seems that this perception of powerlessness and 'changelessness' is shared by several theorists and practitioners. Further attitude research would determine the extent of this view within this learning environment. This would confirm and clarify the need to develop practice alternatives.

Although students evidenced a general dissatisfaction with university learning, many indicated that the instructor in this course was more open than other instructors they had had and one student explained:
It was a plus that he had you in his class. He was showing he was flexible. And he was willing to have you there. He knew what the end results would be, that you were going to interviewing students, evaluating his instruction and his methods of teaching, I think that says a lot for his character, so ya’ know, I thought it was a positive thing having you there.

Students commonly spoke of the instructor as being flexible regarding course work and open to providing assistance needed but questioned his openness to changing his teaching habits to accommodate their learning style. My own experience as a student of this professor was positive; in fact, he was known, through the student grapevine, to be one of the better professors in the faculty. It is unclear whether this perception of lack of change at university has grown out of their experience in this class or their experience in university in general. It may be that this research provided a vehicle for voicing concerns which had remained silent due to a lack of opportunity for student voices to enter the teaching dialogue.

The Learners’ Need

This section represents the needs identified by this group as important to their learning. Although these themes are rooted in this group’s experience, there are indications from graduate Education students in this study as well as graduate students from the Graduate Teaching Pilot Program that they may represent a general perception of university education. This section will review the need for practical knowledge evidenced in this group and consider the relevance of both group work and reflection in satisfying these needs. A concluding section discusses a roleshifting which this group seemed to experience during their learning.
Practical Knowledge

Over half of the students in the class indicated that the learning had been useful to them as soon-to-be teachers because it was practical. Students voiced course concerns revolved around the relevance of the knowledge offered and the use of examples that they could relate to. One student explained that “that was what we wanted most, ya’ know, hands on stuff” Another student said “That’s the thing, to use the material” and yet another student explained:

I want all the information I can get to apply to what I’m doing. Cause what you’re doing to you is important to you, it’s your future.

Students had a strong need to learn how to be a good teacher. Developing this kind of knowledge was spoken of again and again as an important learning value of this group of learners. Students were pleased that they were encouraged to apply their learnings as described by this student:

I think we learned to apply a lot of ideas... its like our reflection papers, I think more about what I have learned in the past. I mean, I never thought that it had any relevance back then but now that I’m learning all this stuff in this course, its applicable.

And still other students felt the course to not be practical enough:

Yeah, a lot of it wasn’t practical, like if he explained something I couldn’t sit there and say, ok, this is how it works in the classroom so the way he described it went over my head.

This need to learn to do, to learn at the point of praxis, not just about educational theory but to learn how theory relates to teaching practice was a recurrent theme in this research. Students both enjoyed it when it was present and missed it when it was not.

Group Work and Learning

As mentioned earlier, students appeared to both enjoy and learn from group work in the
enjoy using them (although this task met with significant resistance in the early stages of its use)

different, the majority of the students eventually developed their reflective skills and came to
and used in their assignments. Although initially somewhat resistant to trying something new and
students appeared to both enjoy and learn from the reflection process they were taught

Reflection and Learning

The next chapter will more thoroughly explore this concept.

Experimental function and allowed for a type of classroom learning permitted by the learners in this
praxis learning occurs at this
learning, which was generated through the students' attempts to integrate the theoretical
insight from the point of praxis. This point of praxis appears to have allowed for a type of praxis
vehicle for students to learn practical skills and engage in the experimental action needed to gain
action are basic elements in productive learning. Group work appeared to have provided a
traditional lecture format. Carter and Olin (1996) suggest that "hands on" activity and experimental
earlier sections, indicates that group work allows for a type of learning not permitted in the more
through the group learning activity provided. This, combined with the discussions provided in
students' need for practical knowledge and praxis learning experiences were somewhat satisfied
knowledge gained above 3 on a 5 point Likert and 77% rated above 4. It appears that this student
were asked to rate the knowledge they had gained through the group activity. Again, 91% rated
Likert scale. 82% of students rated their learning above 4. On a separate question, students
responding rated the amount of learning taken from the group work 3 or above on a 5 point
classroom. Of a total of 22 completed feedback sheets on my teaching, 16% of students
At the course’s end, students were asked to complete feedback questionnaires on the reflection assignment, all 26 students completed this feedback sheet. Ninety-six percent (96%) of the students rated the usefulness of the reflection assignments over 3 and 81% rated their usefulness over 4 on a five-point Likert. When asked to rate the assignment’s positive effects on their learning, all students rated over 3 and 85% rated the positive effects over four. The professor indicated that, although time costly, the reflection assignments appeared useful for students overall and he has since used a revised version of this assignment in his teaching practice.

Students generally seemed to benefit from the assignment and not only felt that they had learned a new skill but also that they had learned the material better. One student explained “I would remember . . . the stuff I do remember is the stuff I put in my reflection paper” and several other students made reference to the reflection papers both helping their memory of the material as well as providing a vehicle for studying course material throughout the term. Another student explained:

The reflection papers were different. I mean the best part of the course. I guess its like (a co-student) said, that’s the only way I could relate it to what I was doing in regards to teaching.

The same student explained that the reflection papers helped make the content concrete and other students explained that the assignments “always made us think about how it would affect our teaching” and that the papers “tied it into teaching more than what he did”. Another student explained that the reflection papers helped her integrate the material she was learning. And yet another student explained:

Like, the stuff we did in those reflection paper. Like, I made connections there and I found that benefited me. I felt that that made me really think about situations. Well, it gave me a knowledge, I guess, that there are other ways of thinking about things.

Some students indicated that the reflection papers made them pay more attention in class and another student described a motivating effect as follows:

I know there were some classes that were great. You swear you just wanted to go out and start a reflection paper on it. It was really good what we were talking about.
This assignment also seemed to have provided a means of learning that encourages a praxis orientation as well as critical thinking. It allowed many in this student group to further integrate what they were learning while fostering an understanding of how the ideas presented in class worked. The net result for many students appeared to be an improved recall as they began to view the assignments as part of their study ritual.

Although positive benefits were experienced by most students, there were also some noted problems with the assignments. Many students felt that they were time consuming and that fewer papers would have been nice. Several students would have liked to be able to speak to all their courses rather than just the content of this course and some felt that they didn’t have enough time for them. One student explained that “in your papers, it helped, but it was just credit” and still others felt that once they had their topic for their paper they tuned out of the rest of class indicating a negative impact on classroom learning. For those students who did experience benefits from engaging in the reflective activity demanded by the assignment, their descriptions of the these benefits provide additional evidence for Silcock’s (1994) advocacy of reflective teaching practice which he defines as an “...ubiquitous, cognitive process, not only reworking tacit knowledge into skill but providing, through symbolic transformation, a means for linking social knowledge and context and for translating one sort of experience (ie. academic) into another (ie. practice)” (p. 273). Many students’ described experiences which may be indicative of the beginnings of a reflective teaching orientation which will carry them through their professional lives if practiced. This theme coincides with Shor’s (1992) belief that “empowered students make meaning and act from reflection, instead of memorizing facts and values handed to them” (p. 12). These students certainly found reflective practice useful for their learning.
Roleshifting

Interestingly, many comments from students indicated a kind of roleshifting taking place with how they view themselves as teachers. The students tried to see the situation from the instructor’s perspective and many used the knowledge that they had learned in the class as the tools with which to critique this course as well as their university education in general. One student explained her frustration with university teaching as follows: “cause, I mean, that’s what we are being taught, ya’ know... so, I mean, why shouldn’t professors do that as well”. Another student explained:

A lot of it though could be our expectations. Like we’re in primary. Everything we are being taught is to get the kids involved... and maybe because we are taught to do that, we kind of expect that from others.

Another student explained “we’re doing all these courses on different teaching strategies and I wonder how come we don’t... we don’t see them that much?”. In the process of shifting between student and teacher, the students were able to articulate the instructional inconsistencies between what they were learning and how they were taught. The professor spoke of this as well and described it as part of his job “to encourage them to step over that line” [between student and teacher]. This shifting seemed to stem from the students’ growing knowledge of how this stuff works in reality or at the point of praxis. See next chapter for discussion of praxis learning.

This chapter has created a picture of a group of learners who, although benefiting from this learning experience, felt that it did not meet their practical learning needs. Ironically, this same group of learners had ill-defined learning needs when asked and were noted as being a particularly quiet student group. Interestingly, the professor believed that he was providing practical learning opportunities yet not all students shared his view. Although possible reasons for
this difference were explored earlier in this chapter, the extent and nature of this perceptual
discrepancy between student and teacher requires further research to clarify general implications
for the teaching-learning dynamics itself. The next and final chapter, Final Reflections, will
explore the implications of this thesis research for both educational research and practice.
Chapter Six

Final Reflections

Through a discussion of research strengths and interpretive limitations, this chapter will conclude this thesis. Since I made several conscious decisions throughout my research to increase the quality of the data collected, it seems appropriate to explore the implications of these decisions here. Although often deemed "obsessive" by observers, my intention throughout this research was to develop a mental attitude which reduced bias by constantly checking interpretative categories against the data, findings of other theorists, researchers and practitioners as well as my professional experience. This process was expected to ensure proper grounding of the defined categories of this learning experience. I periodically cross checked the emerging themes with data collected at different times, through different methods and from different perspectives. As a result, I used a practical approach to data verification, focusing on the determination of grounded themes. The initial section, Strengths of Research leads through the areas in which this research finds its strength and is followed by an exploration of the associated Research Limitations. A final discussion of The Teaching-Learning Dynamics observed in this learning environment is followed by a review of the implications for Fostering Lifelong Learning.

Strengths Of Research

There are many strengths to be found in this heuristic inquiry. My primary goal was to search for regularities in the data and to use the data to ground the themes constructed to describe
Direct observations supplemented by immediate interpretation is the ideal course. In most
and reflection and in line with the Anthropological Institute’s (1961) suggestion that:
learning dynamics observed. Themes identified were done so after much review, comparison,
data triangulation produced themes which are sound and reasonable explanations of the teaching.
helped facilitated the trustworthiness of the data (Glasser and Putnam, 1992, p. 24). In this research,

The combination of this qualitative methodology and a multi-data collection approach has

range of research options, one appropriate to the research goals

evaluate the educational world” (p. 8). This research study represents one example within the
be more complete and informative as we increase the range of ways we describe, interpret and
experience and was rooted in an affinity with Eisen’s (1961) belief that educational inquiry will
methodological window, heuristic inquiry, provided a rich snapshot of this group’s learning

The qualitative approach may not have permitted (Fielding and Fielding, 1982, p. 46).
method itself. Within this context, I have remained true to the data in a manner which a more
process of learning as well as the process of understanding that learning through the research
research” (p. 6). This research was a very process oriented - it focused on capturing glimpses of the

one in relation to the data during the course of research. Generalizing theory involves a process of
that most hypotheses and concepts not only come from the data, but are simultaneously worked
understanding that learning through the research

predictable conclusions in the data. For as they explain “Generalizing a theory from the data means
be found in generalizing themes, categories from the data rather than seeking verification for a
descriptions provided in Chapter Five because, as Glasser and Strutte (1967) suggest a strength is

scientific attitude to guide my activity. This process has strengthened my confidence in the
the capacity to doubt, to seek stronger proofs was integral to the development of a critical

this learning experience I embraced the attitude espoused by Fielding and Fielding (1982) that
satisfactory to begin an investigation into any particular subject by way of direct
observation of some event and follow up by questions as to the details, variations, similar
events, etc. This may not always be possible. (cited in Kirk and Miller, 1986, p. 61).

Thanks to the Graduate Teaching Pilot Program as well as the professor and students
participating in this research, this access, to an otherwise silent domain, was possible.

Because all participants were involved in Education, these experiences were identified and
articulated by an informed audience. As a result, all participants shared a common set of terms to
understand and describe their experience. In particular, this meant that participants were able to
recognize, articulate and critique the educational experience they were offered by the
instructor(s). This study has allowed a detailed look at classroom life in undergraduate education.
It has allowed for an exploration of “what makes classrooms tick” (Eisner, 1991) which,
although limited to the experiences of Education students, may describe a general experience
shared by many university learners. This research has identified new areas of inquiry and has
generated research outcomes which are in line with those of other researchers, theorists,
practitioners and government publications. The results of this research clearly speaks to Roberts
et al.’s (1992) call for a focus on classroom processes to enhance current understanding of
learning.

Kirk and Miller (1986) suggest that the main validity issue with qualitative research is
whether the researcher calls what is measured (or in this case observed, noted and interpreted) by
the right name. The contribution of other perspectives, the recursive approach to data processing
and analysis, the generation of themes from triangulated data and my efforts to “clean my lens”
all heighten the likelihood that this error has been reduced. Several writers acknowledge the
impact that chosen procedures can have on the type of data researchers find and the
interpretations they in turn make (Fielding and Fielding, 1986; Kirk and Miller, 1986). As Kirk and Miller explain “the field observations of qualitative research are intrinsically linked to the observer” and in turn agree with Hirsch’s contention that “there is no such thing as raw data in the purest sense” (p. 51). The reality of this type of work is that I was the vehicle through which these findings have been articulated, to that end, my interpretations are limited. However, as discussed throughout this report sufficient safeguards were in place to balance these limitations. And while this limit may pose a limitation, it also added a richness to this research.

To assess this data through the “reliability lens”, the focus is on the extent to which the procedures used yield the same observations over time and space. Kirk and Miller (1986) suggest that reliability, in qualitative work, is derived from detailed documentation of the procedures used and the decisions made. I have provided information on the data collection, processing and analysis phases of this heuristic inquiry and described many procedures designed to enhance the strength of the data. In response to this anticipated source of error, I intentionally designed a study that would yield results at different times, from different perspectives and through different methods. I believe the data to be strong and hold a sufficient level of internal reliability. As a means of assessing external validity, I compared the results of this research to the writings of other researchers; however, the degree to which the findings of this research will attain a sufficient level of external reliability to confirm these findings will depend on additional research evidence taken from a broader sample of learners and learning institutions. Research using in depth case studies of learning experienced by individual learners, teaching practitioners as well learning groups could confirm, contradict or clarify the dynamics observed in this study.
Interpretive Limitations

As discussed earlier, my approach to theme identification and verification involved the technique of triangulation or a multi-strategy approach. The rationale for this decision stemmed from the belief that “in research, when diverse kinds of data support the same conclusion, confidence in it is increased and the link between social reality and social theory is better forged... other threats to validity can be handled” (Fielding and Fielding, 1986, p 24, 7 and 23 respectively). The section to follow will deal with some “other threats to validity”. I explore potential sources of error associated with this particular thesis research and my efforts to minimize their impact where possible.

Kirk and Miller (1986) outline three additional types of error for qualitative research. Type 1 errors occur when the researcher accepts something as true when, in fact, it is false. The multi-perspective approach significantly reduces interference due to this source. Type 2 errors involve rejecting something as false when it is true. I believe this to be a concern in this research. Due to the multitude of data decisions which had to be made. I decided to report those themes that recurred in the data rather than simply reporting curious findings. It is possible that I rejected something which was actually true but not well evidenced. Only those themes which were fairly consistent across perspectives, time periods and data type were considered grounded in the data.

My greatest concern stems from the third error source suggested by Kirk and Miller (1986) which occurs when the wrong question is posed. Although I was guided by a protocol based on the ideas of Knowles (1973) to guide the discussion groups (see Appendix B-2), there were occasions when I “went with the flow”. This flow on occasion stemmed from questions generated through the research process and within the discussions themselves. Although this
could be seen as a strength of this thesis research, and is certainly in line with the heuristic approach, it may have contributed to the risk that the research findings were unduly shaped. I accept that different questions may have produced different answers. However, given the nature of the inquiry, this error source does not necessarily limit the confidence in themes found but may shed doubt on the exclusive descriptive power of the themes constructed.

When placing the "validity lens" on this research some additional issues emerge. The extent to which interpretations made are descriptive of the site under investigation and not other factors is a real concern. I believe that this problem is partially addressed by the previously noted multi-perspective and multi-data approach to data collection as well as careful attention to data processing and verification protocols. For as Hammersley and Atkinson (1983) point out: “Data are not taken at face value, but treated as a field of inferences in which hypothetical patterns can be identified and their validity tested out” (p. 18). I have taken several precautions in this area, and in the end, must accept that experience will often defy categorization regardless of my attempts to manage the associated interpretive risks discussed in this section.

Some specific problems noted in this study included concerns that the students may have confused my teaching with the instructor’s style. While it is questionable, the degree of influence this may have on the aim of the study (to understand the learning experience in general), this reality of data collection is noteworthy. Another source of concern was the lack of feedback sheets left after the instructor’s teaching. As a matter of course, I asked students to complete feedback sheets on my instructional style. This was not done for the instructor, an oversight that I now regret. A final return to both the student group and the professor, with this thesis report would have also strengthened the themes.
More discussion with the third party viewers would have added to the richness of the data and provided more of a balance for potential researcher bias. Additional input from faculty as well as the graduate students would also have strengthened this perspective. A “better” video as a means of discussion would have been nice. All participants who watched the video noted its limitations with respect to capturing the students’ facial expressions. This would have enhanced third party insight into the classroom dynamics as well as strengthening my interpretations. I reviewed the video tapes regularly as these classroom snapshots anchored my interpretations to the social reality under investigation. Tapings that were spread across the term instead of occurring only near the end of term would have increased reliability of the themes identified. The limitations to only one class of thirty students restricts interpretive license even further.

Eisner (1991) explains that “the forms through which humans represent their conceptions of the world have a major influence on what they are able to say about it” (p. 7). The reader is encouraged to bear in mind that “new forms of representations, when acceptable, will require new competencies” (Eisner, 1991, p. 8). Although the particular study may be flawed, the form of inquiry has merit when properly prepared for the task. Kirk and Miller (1986) describe another procedural concern for field workers which may have influenced the outcome of this research: “...knowing how to determine if one is discovering or interpreting or inventing or explaining. Plainly ethnographers operate in all these modes while in the field” (p. 61). At times, my novice status as a researcher was quite apparent. As a result of this, I sought ever stronger proofs in the name of developing a more critical, scientific attitude. The extent to which these safeguards

---

41 As I have worked closely with the professor in this course, I bring preconceptions of the instructor’s style and knowledge. I felt the instructor’s style to be very entertaining and enjoyed learning in his classes. For this reason, additional perspectives and data source triangulation were used to verify themes.
The Teaching Learning Dynamics

Through a combination of factors, the teaching-learning dynamics emerges as the
interactive, recursive process that simultaneously uses and influences the learner's situation
(Smith, 1990). It is this process which becomes the vehicle through which educators accomplish
their educational goals. For this reason, it has been the focus of this educational inquiry. This
research points to a need to look at the learners creating through the teaching-learning dynamics
created in an Education classroom. Comments made from several sources indicated that this
trend may be descriptive of university learning in general. Although further research is needed to
clarify this finding, it may point to a need to explore the truth behind the words of a graduate
teaching Education student.

Sometimes we take ourselves so seriously, I think it's important to 'lighten up' Students
may have different reasons for being at university
It may be time to start asking what it is that students want and need to learn in university
classrooms. Researchers and educators alike may need to look at how they are currently
meeting (or not meeting) these needs. A graduate student in history, involved in the Graduate
Teaching Pilot Program, shares her perception of this.

I am implying a dichotomous relationship between knowledge and experience - the subject
matter of a course and the university experience. Education is not just what you come
away knowing. University education is more than that, it is the learning how to listen, to
speak, to draw on other people's ideas, to make friends etc.
Such a broadened view of the university classroom experience opens the window on what it is that students want in classrooms. Although additional research and discussion is required to answer this broader question, one need identified in this research is the desire for practical opportunities to apply the learning and knowledge being taught - *praxis learning*.

**Praxis Learning**

The majority of the students in this study indicated a preference for group work as a means of learning. This student group seemed to be particularly sensitive to the implications of their classroom learning on their teaching practice. As mentioned earlier, this student group were very professional, serious and dedicated to becoming good teachers. To this end, their learning preference was at that point where theory meets practice - *praxis learning*. This apparent need for *praxis* learning opportunities reflects a valuing of the process of learning as well as the products. *Praxis* learning demands interactive opportunities which are designed to enhance the application of theory for the learner. The student learns through engaging with or enacting the idea(s) or content under review.

When asked to give the researcher feedback on the usefulness of a group learning activity demonstrating assertive versus aggressive teaching styles, one student explained: "...it showed how teaching techniques can affect both students and learning...the exercise was very effective in showing two types of teaching". Another student explained that:

It [group work] can make you see that how you react will influence students actions*. And still another student felt that “situations like this role play exercise may happen in any class...classroom management cannot be fully understood unless you experience it first hand. Even though this was a role play, I still feel I benefited from it.
Comments similar to these were made throughout the reflection papers and can be found in the various types of data collected. The students appear to want to learn how thinking relates to doing. Roberts et al. (1992, p. 32) discovered a similar preference in her study of four college classes in England. The students’ comments also lend support to Cantor’s (1992) claim that information has been learned when it has been transformed into action (p. 46).

A praxis orientation toward learning requires both students and teachers to reflect on their experience as a means of building bridges between their theoretical understanding and their professional practice. Learners and teachers must develop an orientation that encourages both the accumulation of knowledge and the transformation of that knowledge into their daily practice.

This view of learning was echoed loudly by the students in this research as well as the American Council on Education (1997) and Human Resources Development Canada (1994) - there appears to be a need to bridge the gap between purely theory based learning and more hands on experience. Increasingly, there is a need to look at methods of educational endocrination and the skills fostered in adult learners through current practice. Smith (1994) explains:

As the passive conformer disappears in today’s empowered workforce, he or she is being replaced by active learners who see work and life as a learning experience which combines thinking and doing. The new definition of education must encompass this reality and bridge the gap. It is no longer acceptable to have separate education for the thinkers and the doers. The worker of the future will need both. (p. 16).

Modern work demands require that learners in the information age gain practical skills as well as usable knowledge. The university as a site of adult learning, will need to assess its role in promoting this lifelong learning agenda.
Fostering Lifelong Learning

The themes emerging from this research appear to coincide with an industry and government need for application-oriented learning while, at the same time, demonstrating the value of bringing student perceptions into the growing dialogue on the teaching-learning dynamics. A recent government report, Post-Secondary Indicators (Division of Evaluation, Research and Planning, 1995), outlines several goals for post-secondary educational institutions: (1) to increase participation; and, (2) to improve effectiveness, cost efficiency and accountability (p. 77). The authors introduce this document by suggesting that:

Educational organizations, whether public or private, need to periodically step back and take a look at whether their goals are being achieved and indeed whether they are appropriate to today’s changing needs. (p. vii).

Students in this study clearly ask for more active learning opportunities and appear to have an alarming perception of change for a post-secondary institution in the information age. Such clear demands may warrant further exploration in light of Stoffman and Foote’s (1996) warning that:

One of the biggest issues as lifelong learning becomes essential to the functioning of the Canadian economy is whether traditional educational institutions can meet these challenges (p. 68)…. "Educational institutions will need to understand their new clientele… the old ways of doing things are not where the marketplace is in the 1990’s, and the marketplace for re-education and training is no different from any other marketplace - it demands quality and service. (p. 67).

This research highlights several points of praxis which provide a reference point from to view teaching practice.

The growing need to address student needs and industry demands driven by the information age is a new force in modern educational planning which may warrant new responses to learners. Shor (1990) explains that "public schooling was driven forward by the force and
cycles of industrial growth. A wildly growing and uncontrollable machine-economy rushes across the land transforming everything thing it touched” (p. 2). These early demands are transforming as society and its institutions approach the 21st Century. The information age, with its demands for increasing skill repertoires and practical knowledge stores, is the force with which learners and educators must now contend. While further research is required to more clearly understand these new demands on the teaching-learning dynamic itself, this study has contributed to this dialogue from the learners perspective. Its outcomes provide further evidence to suggest that there is a growing need for a re-orientation in university learning (Adams, 1993).

In spite of this apparent need for change, it appears that bodies of literature still remain separate in spite of the significant benefit to teaching practice which would be garnered from bringing them together. Cranton (1992) highlights the divide which exists between the research activity in higher education (college and university) and the study of adult education practice. The current study can be conceived as laying some bricks in this androgogical bridge, constructing a solid foundation (rooted in different perspectives each with a vested interest in the learning process) from which to continue building an understanding of how adults learn and how educators must teach. This research provides evidence for the need to close this gap in higher education studies through additional research attention. In particular, this research highlights the importance of providing opportunities for students to exercise their voice in learning (both in research practice and classroom contribution).

The themes identified in this thesis offer a new angle from which to view education - the students’ - tempered by the views of others involved in the process. These research outcomes provide fertile ground for future research efforts. The findings in this research may represent a need to look at both the type of learner “produced” through university training in the Education
Faculty and to explore the medium through which this process of enculturation (Theissen, 1985) occurs at university in general. "Education", Theissen explains, "involves the study of mind and does so within a social dimension which can be described as initiating students into the academic world...indoctrination...is unavoidable in the process of initiating individuals into the forms of knowledge" (p. 243). If we extend this suggestion to the current economic reality that, for many students, education is initiation into the work world as well, the importance of studying the learners created in classrooms becomes very clear. It may be time for the university - as a place of learning - to re-explore the purpose of its educational offerings and make any identifiable adjustments.

Smith (1994) warns that "inflexible program design and rigid learning systems cannot serve the educational requirement of a world where innovation and change are the order of the day" (p. 15). The academics who participated in the American Council on Education's survey (1997) suggests that "we're training and educating people for economic participation and the sooner we (educators) realize this the better we'll do the job" (p. 3). Given this emerging reality and the predominant finding in this study - that learners recognized a pattern of passive involvement in this class and university learning in general, it would seem appropriate to both explore this experience further and to consider changes which could take place within the classroom to foster active learning dispositions in students. Shor (1992) highlights the importance of this when he explains:

Politics reside not only in the subject matter but in the discourse of the classroom, the way teachers and students speak to each other" (p. 14)...something is wrong with education when it suppresses instead of develops their (students') skills and intellectual abilities. (p. 9).

There is a growing recognition of the importance of encouraging active and meaningful student
engagement rather than the passive, instrumental approach to learning observed here. Further exploration of the connection between what happens in the classroom and the type of learners being shaped would help the continued development of effective teaching-learning dynamics.

**Change in the Halls of Learning**

Smith’s (1994) writes “the pressure is on to make education a lifelong undertaking where routine adaptation to the changing needs of learners is an expectation of the system” (p. 9). This position seems to have gained some support through this research study. A consistent finding across student perspectives (including the students in this class, the third party graduate students and some graduate students of the Graduate Teaching Pilot Program) was that university education needs to change. A student perception of lack of change is significant given the current need for ongoing change in work life and points to an area worthy of further exploration.

Bliotniky (1997) suggests that students, as the consumers of university education, need to be consulted on how education happens and what change may be in order for the coming century. Dewey (1938) warns that “it is the failure to adapt educational materials to the needs and capacities of individuals that causes an experience to be non-educative” Chickering (1977) agrees with this and explains that:

Higher education can do more than develop verbal skills and deposit information in these storage tanks between the ears. It can contribute to more complex kinds of intellectual development required for effective citizenship. It can help students cope with shifting developmental tasks imposed by the life cycle and rapid change.

Students are facing different realities beyond their accumulation of information and university may have a role in helping them navigate their experiences. To do this, educators and researchers will
need to continue to look at the outcomes of educational offerings and align them with the desire to understand student needs, which in this study have been clearly identified as active learning opportunities.

An obstacle to enhancing the educational offerings at university indicated through this research is the perception that an elite status has been attributed to research as compared to the practice of university teaching. One student from the Graduate Teaching Pilot Program wrote:

I wonder if the real reason is that teaching at the university is not (or at least has not in the past been) considered as holding the same level of prestige as research and writing. (1995, p. 31).

In fact, one graduate student spoke of the practice of teaching as involving some "secret knowledge that she was let in on" (a perception which Thiessen (1985) suggests is part of the endocritination process itself) and believed that the Graduate Teaching Pilot Program "provided graduate students with the opportunity to increase our awareness and understanding of the importance of thinking about the role of the professor in the wider arena of academic institutions" (1995, p. 36). It seems that professors may need to turn their thinking power toward their own practice for a while.

In his book, *Education and its Discontents* (1989), Cremin confirms this perception of academia and suggests that those universities which focus on teaching over research are attributed lower status within the academic world. This reality may contribute to the limited attention given to research on our own teaching practice. Kronquist and Soini. (1997) agree that teaching is considered a marginal activity at university and questions the reasonableness of suggesting that a student within this kind of learning situation could avoid taking on an instrumental attitude towards knowledge and studies. Certainly this suggests a relationship between current university teaching practice and the development of instrumental attitudes toward learning. Could it be that
teachers are modeling this same instrumental attitude toward teaching? That, perhaps, students live that which they learn. Although a fuller explanation of this is beyond the scope of this research, the data found here suggests a need to further explore just what educators are teaching learners in university classrooms.

Recommendations For Practice

This research identified a learned passiveness in students when not given opportunities to interact with the learning materials. It may be worthwhile to explore the nature of learners created in the university classrooms as well as the extent and implications of the learned passiveness observed in this classroom. A learner need for more opportunities to actively participate in classroom learning was clearly identified. For this reason, university teaching practitioners as well as other adult educators may want to consider the appropriateness of the traditional lecture method to their own teaching objectives as well as the goals of students. This research demonstrates the effectiveness of qualitative methodologies in accessing the “richness of the discourse of everyday life” (Shor, 1992) in the classroom. Continued research efforts using the heuristic approach as well as other qualitative designs may provide a more comprehensive understanding of the adult learning experience. A final note on the significant contributions which students can make when given the opportunity both in the classroom and in research on the classroom must not be overlooked. Continued research activity encouraging student input is crucial for the continued development of teachers in institutions of learning.
Recommendations For Research

This research demonstrates the utility of the heuristic approach as well as triangulation as a research tool for exploring the nuances of learning. The heuristic method gains its strength in getting close to the phenomena under investigation. The open ended nature of this method allowed for a contemplation, exploration and reflection on the themes identified here. The adherence to the practice of triangulation further strengthened the foundation from which I speak. Although strength can be found in these considerations, there is a need to engage in additional research activities to determine the reliability of these themes over student groups, departments and educational setting.

Specific research initiatives could include survey research which seeks to determine how these themes hold up against a cross section of other disciplines, students, professors and other practitioners. This research design could be strengthened through the use of focus groups or case studies. An alternative project could be to look more closely at the dynamics of individual students rather than learning groups. A look at the classroom teaching-learning dynamics more closely to determine factors contributing to or reducing “true learning” experiences may provide worthy results. A final research project could use survey research and focus groups to encourage students to assess the “descriptive power” of the themes identified here as they relate it to their learning. A cross-section of learning environments could be sampled including students from, University, College programs, private training offerings, High School Education, Adult Basic Education, as well as personal and professional learning groups.

There is some evidence to suggest a need to direct more research attention toward the practice and development of university teaching practice. Although the classroom has not been
seen as an arena of complex learning (Shor, 1992, p. 178), this study demonstrates the richness and nuances of the data to be found in a university classroom. More recognition of the importance of research on university teaching practice and allowance of time to carry it out (Shor, 1992, p. 171) would contribute to ongoing educational development. Shor (1992) explains that:

This traditional universe of research is what Boomer (1987) called the ‘elsewhereness of scholarship’ - it happens everywhere else except everyday in the classroom, where it is needed. Research is isolated from day to day teaching. For the most part scholarly work does not help the classroom...classroom teaching is the low-status work of education. (p. 172).

Shor’s (1980) call for “the designers of an empowering pedagogy...to study the shape of disempowering forces” is confirmed in the results of this research, and several of the research projects outlined could shed more light on this area.
Reference List


http://www.ACENET.EDU/programs/DGR/Recomm.HTML


Blotniky, K. (1997) lecture on “Business Administration”, Mount Saint Allison, Distance Education Division, Cable 9


Cantor, J. (1992) Delivering Instruction to Adult Learners (Toronto: Wall and Emerson)


Toronto


Conference Board of Canada (1992) “Employability Skills Profile” (Ottawa: National Business and Education Centre)

Cranton, P. (1992) Working with Adult Learners (Toronto: Wall and Emerson)


Department of Secretary of State (1992) Higher Education in Canada (Ottawa: Queen’s printer) p. 6

Dewey, J. (1938) Experience and Education (New York: Collier Books)


Eisner, E. (1986) "A Secretary In The Classroom" Teaching and Teacher Education, 2, p. 325


Economic Council of Canada, A Lot to Learn: Education and Training in Canada (Ottawa: Supply and Services, 1992)


Graduate Teaching Pilot Program (1995) *Journal Sampler* (St. John’s: MUN)


Maquet, J. (1964) “Objectivity in Anthropology” in Current Anthropology, v. 5 P. 44


Mezirow, J. (1985) "Concept and Action in Adult Education" Adult Education Quarterly, 35(3)


O’Connor, P. (1994) "The needs of adult university students: A case study" College and University, LXIX (2), p. 84-86


Appendix A

The Study

Contents

A-1 Graduate Teaching Pilot Program information
A-2 Course Description
A-3 General Consent Forms
   a Professor
   b Students
   c Third Party Viewers
Week 6. Responding and Cultivating Students' Work: This session will focus on designing and conducting assessments at the beginning of the class, such topics will be introduced as part of the activity.

Week 5. Dealing with Diversities: At least two guest speakers with expertise in dealing with issues of race, gender, class, academic preparation, and other kinds of diversity will give presentations on strategies for dealing with (or forestalling) difficult interactions that can occur in classes and online forums.

Week 4. Technology: This session will introduce students to innovative ways of using technology on specific classroom practices that seem most relevant to the kinds of teaching they expect to do.

Week 3. Hands-on Classes: Part of this session will deal with general teaching strategies, methods, and evaluation systems that are consistent with those aims.

Week 2. Planning Courses: The session will focus on the kinds of teaching needed for teachers to carry their aims in a course, and to choose course content, teaching methods and evaluation systems that are consistent with these aims.

Week 1. Theories of Teaching and Learning: An introductory lecture will be given examining pedagogical challenges, rewarding enterprise and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.

Preliminary Syllabus for General Sessions (Fall 1994)


Challenges, Rewards, Enterprise, and to provide opportunities for discussion and research in support undercurrents at WILN, to make students aware that learning is an interdisciplinary skill.

The aims of the programme are to help prepare Graduate students for future academic careers.
of writing as a learning strategy. For the remainder of the class student will divide into groups each led by a faculty member from their own or related discipline, to work with actual undergraduate assignments.

**Week 7. Preparation of Teaching Dossiers:** All graduate students enrolled in the Programme will be given instruction and assistance in preparing their own dossiers.

**Weeks 8 and 9. Videotaped Teaching:** Each student will have the opportunity to be videotaped while giving a class presentation (either in a genuine teaching situation or in a mock one) and these sessions will be used to view and critique these tapes with peers. For students not teaching in the fall semester, such taping could be postponed till the winter semester. Tapes would be seen by faculty members only at the student’s request.

**WINTER SEMESTER** See attached documents:

1. Responsibilities of Teaching Supervisors
2. Responsibilities of Students

A reading list and more detailed syllabus will be circulated before the beginning of the fall semester to all those involved in the programme.
Appendix A-2

1. Instructor: remains unnamed
   Co-Teaching Assistant: Ms. Heather White

2. Office: Education 4029 (Office hours to be Posted)

   Boston, Allyn and Bacon
   Additional Readings will be Assigned

4. General Description:

   a. This course provides an introduction to the nature of learning and cognition and to
      selected concepts and theories underlying our understanding of these processes in
      students. Particular attention will be paid to the use of course information in
      classroom settings. The course will familiarize you with the concepts and
      vocabulary used to describe children’s learning and learning related behaviour. You
      will study the “learning” based explanation and justifications for many
      educational and instructional activities. The application of this knowledge to
      instruction and the offering of educational experience are also key objectives of
      this course.

B. You will study, from an educational perspective,

   - the nature of theory and how learning theory relates to classroom practice
   - basic models of learning (i.e. classical, operant, and social and motivation)
   - the role of objectives relative to learning
   - cognitive and memory concepts and models applicable to the classroom and
   - practical applications of “learning” theory and research (i.e. discipline, drill,
     practice and review techniques, memory aids, teaching styles, classroom
     organization, instructional design etc.)

5. Teaching Style:

   A largely lecture and focused group discussion will be used. Students will be encouraged
   to express their own points of view and to raise issues and concerns about the learning
   and instruction activities experienced and observed in their placements. No student
   presentations are planned. Lectures will largely discuss assigned materials. Considerable
   independent reading and study can be anticipated.

6. Assignments and Tests:
Course Outline

1. Lecture/Topic Materials and Sequence

   Note: not all the material you are required to study will be discussed directly in class.

   a. Materials and Activities for Block #1

   1. Read Materials In the Following Sequence:
      Chapter 1 Teachers, Teaching and Educational Psychology and
      Chapter 12 Teachers and Teaching
      Chapter 6 Behavioural Views of Learning
      Chapter 11 Creating Learning Environments
      Chapter 9 Motivation Issues and Explanations

   2. Key Dates:
      January 19 - Library Visit (Rm 1016)
      Feb 2 - Library Assignment Quiz (15 min)
      Feb 28 or Mar 2 - Test 1 (Approximately)
      March 13-15 - Mid Term Break

   b. Materials and Activities for Block #2

   1. Chapter 7 Cognitive Views of Learning
   2. Chapter 8 Concept Learning, Problem Solving, Creativity and Thinking
   3. Chapter 10 Motivations, Teaching and Learning
   4. Chapter 13 Rediscovering Student Teaching
   5. Key Dates:
      March 23 - Review Paper Due
      March 30 - Due Date for last reflection paper
      April 12 - Last Lecture
      April 17-26 - Exam Period

2. Summary of Key Dates

   January 12 - Lectures begin
   January 19 - Library Visit (Rm 1016)
   Feb 2 - Library Assignment Quiz
   Feb 28 or Mar 2 - Test 1 (Approximately)
   Mar 11-15 - Mid Term Break
   March 23 - Review Paper Due
   March 30 - Due Date for last reflection paper
   April 12 - Last Lecture
   April 17-26 - Exam Period
Assignment scores will make up 50% of the final grade. At this time, three assignments are being considered. Within two weeks of the beginnings of the course a final decision will be made. Proposed assignments include:

a. Library Study and Quiz (10%):

Students will have a one hour library visit which, in about 2 weeks will be followed by independent completion of study questions that will be given out. (YOU WILL NOT BE REQUIRED SUBMIT THE ANSWERS TO THESE QUESTIONS.) You will then have a brief quiz based the information studied.

B. Reflection Papers (30%):

You are required to submit four (4) papers for evaluation (plus one for practice). Each paper will focus on a different section (i.e. 2 consecutive classes) of the course. You may choose the sections for which papers are submitted. The first paper you submit will be marked but will not be counted in your term grade. Each paper will be about 3 pages (600-900 words) in length. Guidelines and suggestions for these papers will be available shortly.

C. Review Paper: (10%):

Students will be required to complete a brief (i.e. 5 to 7 pages) descriptive paper based on a review of journal articles related to the course. You will need find and study 2 to 4 articles. The paper will describe what was learned from the articles and state the relevance or application of that material for teaching. A list of possible topics will be provided. Topics suggested all relate to some aspect of teaching, classroom management or child learning.

D. Tests (50%):

In addition to the above, students will write one in-class test (25%) and a final exam (25%). The final will concentrate on the materials covered after the mid-term test and will include general questions covering the whole course (i.e. about 5 questions out of 50). In all cases, an objective (i.e. multiple-choice type) test format can be anticipated. A few short answer questions may be considered for the final.

7. **NOTES**

a. As instructor, I reserve the right to adjust anyone’s final grade by up to a maximum of 5 points based on my personal evaluation of that person’s performance. In most cases such grade adjustments will not be made. Adjustments might based on: illness, personal problems, poor attendance, late assignments, unprofessional behaviour, outstanding performance or effort, etc.
b. Normally a student must earn grade in order to be granted that grade. Grades are not automatically ‘rounded up’. A mathematical grade of 48, will NOT automatically be ‘rounded up’ to 50. Your course performance will be reviewed and a decision will be made.

c. While consultation on dates will take place, once a date has been set, it is expected that it will be honoured. If a date is missed and no special arrangements were made, a verifiable medical or other acceptable document legitimizing the occurrence must be offered. Without this, a “0” grade will be assigned.
I __________________ agree to participate in this research study on the experience of learning from the perspective of educators and student educators. I understand that I may withdraw at any point as my involvement is voluntary. All information is strictly confidential and no individual's name will be released.

Date __________________ Signature __________________
Dear professor,

I am a graduate student in educational psychology at Memorial. My research is in the area of human learning. I am exploring the teaching-learning dynamics. My focus is on the experiences of those involved in this dynamic.

My research involves interviews with yourself as professor of this course as well as your own personal reflections on experiences in this class (Educational Psychology - 3615). A video tape of the chosen classes will be shown to three other professors within the Education Department. They will be asked to complete the same questionnaire as both yourself and the students of the Educational Psychology class. Each source of information will provide the data for my thesis research.

My aim will be to look for patterns in the information collected. I will be looking at the differences in experiences of each group and comparing the different perspectives on the same class.

I am seeking your involvement as a participant in this research. As a participant, you will be asked to fill out a questionnaire at the end of three classes over the term. You will also be interviewed as the end of each of these classes. Your involvement in this study is your choice. Non-participation will have no ramifications for you within the Department.

If you decide that you do not want to participate, an explanation for this decision may provide useful information for me as the primary researcher.

My thesis will represent both the views of professors and teachers-in-training. Both yourself and the group of students have been chosen because it is assumed that you would experience a heightened degree of insight into the teaching-learning process.

Your participation is completely voluntary. If you choose to get involved in this process, your name will in no way be associated with my final report. Your anonymity is guaranteed. Results of the study will be made available to you upon request.

For your convenience, I can be reached at 739-0303. My supervisor for this research, Clar Doyle, will also answer any questions you may have. He can be reached at 737-7556.

Thank you for considering this request.

Kindly,

Heather G. White
Dear student,

I am a graduate student in educational psychology at Memorial. My research is in the area of human learning. I am exploring the teaching-learning dynamics. My focus is on the experiences of those involved in this dynamic.

My research involves interviews with the professor of this course as well as your own personal reflections on experiences in this class (Educational Psychology - 3615). A video tape of the chosen classes will be shown to three other professors within the Education Department and they will be asked to complete the same questionnaire as both yourself and your professor. Each source of information will provide the data for my thesis research.

My aim will be to look for patterns in the information collected. I will be looking at the differences in experiences of each group and comparing the different perspectives on the same class.

I am seeking your involvement as participants in this research. As a participant, you will be asked to fill out a questionnaire at the end of three classes over the term. You will also be invited back to discuss your class experience in a group. Your involvement in this study is your choice.

If you decide that you do not want to participate, an explanation for this decision may provide useful information for me as the primary researcher.

My thesis will represent both the views of professors and teachers-in-training. Both your group and that of the professors have been chosen because it is assumed that you would experience a heightened degree of insight into the teaching-learning process.

Your participation is completely voluntary. Non-participation in this study will in no way affect your grading in this course. If you choose to get involved in this process, your name will in no way be associated with my final report. Your anonymity is guaranteed. Results of the study will be made available to you upon request.

For your convenience, I can be reached at 739-0303. My supervisor for this research, Clarr Doyle, will also answer any questions you may have. He can be reached at 737-7556.

Thank you for considering this request.

Kindly,

Heather G. White
Dear graduate student,

I am a graduate student in educational psychology at Memorial. My research is in the area of human learning. I am exploring the teaching-learning dynamics. My focus is on the experiences of those involved in this dynamic.

My research involves interviews with a professor of an Educational Psychology course, students in this course as well as your own personal reflections on experiences in this class.

A video tape of the chosen classes will be shown to you as well as two of your colleagues within the Education Department. You will be asked to complete the same questionnaire as both the professor and the students the Educational Psychology class. You will also be asked to participate in a short discussion group following the viewing of each video. Each source of information will provide the data for my thesis research.

My aim will be to look for patterns in the information collected. I will be looking at the differences in experiences of each group and comparing the different perspectives on the same class.

I am seeking your involvement as a participant in this research. As a participant, you will be asked to fill out a questionnaire at the end of each video viewing and to participate in a short group discussion of the video tapes. Your involvement in this study is your choice. Non participation will have no ramifications for you within the Department.

If you decide that you do not want to participate, an explanation for this decision may provide useful information for me as the primary researcher.

My thesis will represent both the views of professors and teachers-in-training. The group of students and the professors within the Education Department have been chosen because it is assumed that you would experience a heightened degree of insight into the teaching-learning process.

Your participation is completely voluntary. If you choose to get involved in this process, your name will in no way be associated with my final report. Your anonymity is guaranteed. Results of the study will be made available to you upon request.

For your convenience, I can be reached at 739-0303. My supervisor for this research, Clar Doyle, will also answer any questions you may have. He can be reached at 737-7556.

Thank you for considering this request.

Kindly,

Heather G. White
Appendix B

Data Collection

Contents

B-1  Survey Questions
B-2  Interview Protocol
Self-reflection

1. To what extent did you contribute to class? Explain reasons.

2-3. Is your participation in this class similar to your participation in other classes? Explain. If different, what might be the reason for this?

4-5. How did you feel before this class started? Did this feeling change when class was over?

7-8. How interested in this class are you? How motivated are you in this class? How do you explain this?

Teacher Assessment


10. From you perspective, did your instructor create an “effective learning environment”? How was this done? What may have improved it?

11. To what degree is your relationship with your professor helpful and supportive of your learning efforts? Explain.


Assessment of Learning Environment

13-14. Estimate the amount of learning you have taken from this class? How useful was the information covered to you as a soon-to-be teacher? Explain.

15. To what extent has this class transformed or changed your understanding of the content covered? If it has, how has this class changed your understanding?

16. How does your learning in this class compare to learning you have experienced in other classes? Explain.

17-18. What are some positive attributes of this processes for you? What are some negative attributes of this positive for you?

19. Do you have other insights to share with regard to the teaching-learning dynamics you have experienced in this class?
The heuristic approach encourages the use of an open-ended interview format. Although this will be the preferred style in this research, this list was used to generate responses when discussion was not forthcoming naturally. The following list of adult learner areas of interest, derived from the work of Knowles (1973) served as a guide for all participant interviews.

1. The learner's (or teacher's) recognition of a need to learn
2. The nature of the learning environment or atmosphere
3. The agreement between the learner's goals and the teacher's goals
4. The learners' sense of contribution or commitment to the learning experience
5. The degree of active interaction between learner and teacher
6. The degree to which the learner's prior experience is integrated into the teaching process
7. The sense of progress towards goals experienced by learners and teacher
Appendix C

Reflection Training

Contents

C-1 Critical Reflection Class Handout
C-2 Reflection Assignment
C-3 Evaluation of Reflection Papers
C-4 Example Reflection Paper
Mizirow’s perspective: Modernization has created the opportunity and provided the means to question “old sources” of authority and knowledge. These social changes reflect our need to examine the paradigms through which humans have been taught, via enculturation processes, to view the world and our experience. Adults are freed from the “inevitable dependency” imposed by the socialization process. Consequently, they can make dramatic gains in self-direction.

THINKING/REFLECTION ----> CRITICAL THINKING/REFLECTION*

* reflection on and assessment of the assumptions underlying your problem definitions, consideration for the effect this has on your own “worldview”, recognition of their sources and consequences in a social context and an active engagement with them to allow for a more inclusive, discrimination and integrative understanding of your own experience.

Individual process of change: unchecked meaning/action cycle:

Experience ----> Interpretation ----> Action ----> Experience

Unless critical reflection enters into this cycle, there is no guarantee of growth/learning. Mizirow is interested in breaking this cycle by teaching a process of learning through critical reflection.

Experience ----> Interpretation ----> Action ----> Altered Experience

Reflection* <----- Correct Distortions

* Element of reflection prevents mindless reproduction of distorted interpretations based on invalid assumptions. Invalid assumptions are defined as those beliefs which as no longer appropriate, not taking into considering all evidence or simply false.

Mizirow recognises that the individual makes sense of the situation by integrating new ideas with previous knowledge and experience (1990). He suggests that individuals need to act on this newly created perspective and share our understanding with others through dialogical communications (1985).

CRITICAL THINKING ----> REFLECTION + COLLABORATION

(private world) (shared world)

Process:

Interaction \ Through Group Activity

Self <----- Others /

Benefits of group work:
* helps identify present and alternative perspectives
* provides emotional support for participants
* provides new and diverse perspectives
* encourages the recognition of the shared and negotiable nature of individual interpretations of experience
* facilitates the development of new models of seeing and acting

Sources for further reading:


Appendix C-2

Reflection Training

Winter 1995 - Education 3615
Reflection Assignment

Value: 30% (Based on a maximum of 4 papers)

Due: To be accepted, a paper must be submitted no later than one week after the period on which it is based.

Task: You must submit four (4) papers for evaluation (plus one for practice), each on a different section (2 consecutive classes) of the course. You may choose the weeks for which a paper is submitted. The first you submit will be marked but will not be counted. Each paper will be about 3 pages (600-900 words) in length.

General Description:

This assignment is intended to help you integrate, understand and better learn how to apply course material by thinking critically about it while linking it to your own ideas and practice. It should aid your mastery of the required content while allowing you the freedom to explore the implications of the materials for you and your practice. The activity should also aid you to understand better the practices of others. The assumption is that be “reflecting” on course content you will learn from it in a more personal and professional way than is provided in the class context alone.

More specifically, completion of this assignment will help you:

1. learn about the nature and value of self-reflection;
2. develop skills in self-directed, integrated learning;
3. develop a “praxis orientation” toward teaching-learning. (“Praxis orientation” involves both reflection about and personal integration of course content and practical experience);
4. develop critical, analytical and reflective skills;
5. directly experience an integrative, generative learning process (reflection);
6. make explicit the nature of the learning process and
7. allow your progress throughout the term to be more closely monitored.
Specific Activities

Throughout the course you will be required to keep a journal of your thoughts and ideas as they relate to this course and your anticipated professional practice. It is recommended that you make at least weekly entries. Your anticipated professional practice. It is recommended that you submit your journal entries covering a one week period. The guidelines for the content of this journal are as follows:

1. Each journal entry is expected to reflect your thoughtful engagement with the material covered over the preceding week. You are encouraged to explore and question yourself and others in a manner which will help you further define your position on the content being covered.

NOTE: It is useful after each class and study period to make a brief note of activities and reflections. However, these notes are kept in a personal journal. It is not expected that these individual entries be submitted.

2. Each entry to be submitted will be between 600-900 words (i.e., two to three typewritten or hand-written pages of text). Any submission exceeding this limit will not be expected.

3. In your journal (in approximately one paragraph each):
   a. State briefly the content or topics covered in this section (i.e., chapter title, main topic, key issues). Keep this part very short!
   b. Describe any ideas you had stemming from classes, both current and past, the text content and/or any other personal or educational experiences.
   c. Describe any reactions or thoughts you had stemming from classes, both current and past, the text content and/or any other personal or educational experiences.
   d. Outline any links between the perspectives presented in the textbook and any other experiences you had in this course. Include a brief statement of your own perspective (views, understandings, insights) on these matters.
   e. Seek to identify and make explicit any assumptions you are making and the possible implications of these on your teaching.
   f. Seek to link between your previous journal entries and the current entry.

Describe these links. (i.e., Do any aspects of past entries relate to what you commented about relating to recent classes, reading, or thoughts about this...
course? (optional)

g. Consider and state any implications of the course might have for your present or future practice.

h. Although it is not a requirement, if you have a particular issue (i.e. gender, time, discipline or value related) which you would like to carry over several journal entries, this continued dialogue is welcomed. (optional)

Attached is a copy of the evaluation scheme for this assignment. You will be required to maintain high standards in the areas indicated in this guide. These areas will be discussed in class. If you have concerns about what is expected in a category, get clarification before completing this assignment. If there are concerns about writing efforts, these will be discussed directly with you.

Although this may initially appear to be very cumbersome and perhaps time consuming project, it is expected that by course end its value will be obvious and you will have further developed your reflective capacity as an educator and better learned the content required. The journal entries, in many ways, may be viewed as a tool for study.

Be assured that any specific comments about the nature of the instruction or any other aspect of the course, whether positive or negative, will in no way reflect either positively or negatively on the grade earned by an individual paper or the course.

A Closing Thought About Reflection

This activity demands that you give serious consideration to your practice as an educator. You are expected to use this exercise as a means of exploring your perspective and defining your evolving style. Through a process of thinking-reflecting-rethinking about the course content and how it related to your professional practice and through journal writing you will gain a deeper understanding of the dynamics of teaching-learning process. You are being encouraged to consider how your thoughts relate to your past, present or future practice.

As with any new skill, this one may initially be difficult to learn. Some people “naturally” engage in self-reflection. For others, the process may feel awkward, forced and possibly even false. Some difficulties are to be expected. Do not let possible early problems interfere with your continued efforts to understand the content and process of your own learning in this class.

When in doubt about how to approach this task ask yourself...So What? So ...What relevance does this idea, technique, perspective, or theory have to my own practice? What does it offer to my understanding of this course? How does it fit into my present perspective on the issue?

If you have concerns feel free to contact either Ms. White (daytime - 729-4107) or your professor. Remember that questions are most effective when answered.
Your submissions was judged in each of the categories listed above. A rating of “Good” (3), “Acceptable” (2), or “Poor” (1) will be assigned. The assigned score is based on the pattern (not any mathematical total) of the ratings made.

**Presentation Criteria**

<table>
<thead>
<tr>
<th>Paper Length</th>
<th>Legibility/Ease of Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Content Accuracy</td>
</tr>
<tr>
<td>Language/Grammar</td>
<td>Apparent Effort Expended</td>
</tr>
</tbody>
</table>

**Comments:**

---

**Process Content Crisis**

| Statement of Content Covered in Section (Brief) |   |
| Recognition/Identification of Issues/Dilemma |   |
| Evidence of Integration |   |
| Comparison of Perspectives |   |
| Quality (Depth) of Critical Reflection on Perspectives, Theory, Technique, Ideas, Issues or Dilemma Explored |   |
| Reflection on Personal Learning Process |   |
| Insights about Child/Student Learning |   |
| Consideration re Application/Utility of Materials (Personal and/or Professional) |   |
| Statement of Personal Relevance |   |
| Estimated (by Marker) Difficulty of Material (Considered when assigning paper grade) |   |

**Comments:**
QUESTION 1 - State briefly the content or topics covered in this section (i.e. chapter title, main topic, key ideas).

This paper will cover the material found in chapter one of the textbook. This section discusses the nature of good teaching particularly novice versus expert teacher styles. Teaching is debated as an art or a science. The role of technique is compared with that of reflection for ongoing teaching practice. This section concludes with a discussion of the role of theory and research in educational psychology.

QUESTION 2 - State any reactions or thoughts you have stemming from classes (both current and past), the text content and or any other personal or educational experience.

The term “expert” may imply the possession of knowledge superior to that of the nonexpert as well as the student. This type of categorizing, while useful for understanding the process of teacher development, may inadvertently reinforce counterproductive power arrangements within the classroom or the school environment.

Teaching is both an art (creating effective learning environments, monitoring the learning process to ensure optimal learning by as many students as possible as well as creatively interpreting and presenting the material to be learned) as well as a science (grounded in research and theory which inform our practice, growing from our ongoing efforts to do our job well as well as a working knowledge of various teaching techniques which may be used within the classroom).

Effective teaching assumes a balance between technique and artistry. It requires the teacher to become aware of their own teaching style and open to receiving feedback from the class which may indicate that a chosen approach to teaching a lesson is not working as well as anticipated. The process of reflection is integral to achieving this balance and can inform a teachers’ technical development as well as their understanding of their students’ and the learning process.

QUESTION 3 - Outline any ways in which the perspectives presented in the textbook and any other experiences you had in this course are linked or related. Include a brief statement of your own perspective (views, understandings, opinions or insights) on these matters.

The author’s recognition that balance is a necessary element in practice (i.e. balance between technique and reflection as a means of developing an “expert” perspective) is a position I agree with. However, I feel that, in general, teacher training often focuses more on technique than reflection. If this is to become a valid instrument of teacher development, it must be integrated into teacher training programs. Research has shown that the perception of “expertness” is a necessary ingredient in effective teaching or counselling. A more humanist perspective would argue that this focus will divide the
teacher-student relationship and therefore hinder learning. A more student centered approach is considered most effective by members of this school of thought. A feminist might add that such a division also increases the power differential between the student and teacher. From this perspective power can have a negative effect on classroom dynamics and act to thwart learning.

The truth lay somewhere in between. It is important to have a store of expert knowledge; however, it is equally important to be aware of how this knowledge can most effectively be imparted. As indicated in this chapter, balance is the guiding force here as well.

**QUESTION 4 - Seek to identify and make explicit any assumptions you are making and the possible implications of these on your teaching (past present or future).**

Underlying my interpretation of this material is the assumption that teaching and learning cannot be separated. They are two sides of the same coin. As a result, I perceive teaching within the context of the teaching-learning dynamics. I believe effective learning goes beyond the presentation of content to include such factors as the interpersonal style of the instructor, the nature of the particular class and the group flow dynamic that is created.

As a result of this perspective on learning, I frequently seek to obtain feedback on the group or class I am working with am often observing persons within the group to see how they are following the discussion. I frequently check in with members to ensure that they are following the flow of the class or workshop.

At the same time, I habitually question my own actions and consider alternatives. This is particularly useful when I have chose to take a class or workshop in a direction which proved to be fruitless. Reflecting on what may have gone wrong (feedback to the member of the group or class is very useful here) and what may provide a better choice for next time is often when most of my learning occurs. As Piaget would suggest, mistakes provide important data for future planning.

**QUESTION 5 (optional) - How did you use this text?**

I began by browsing the organization of the textbook. Once I had an understanding of how the content was organized, I read the text and made notes in the margins. I then re-read text and considered how content was relevant for this course. I developed model reflection paper based on this reading. Revised it. Discuss this with teaching mentor and finalized model for class presentation.
Appendix D

Data Analysis

Contents

D-1 Analysis Codes
D-2 Analysis Questions
D-3 Comparative Survey Data
Appendix D-1

This list of codes were generated from a code list provided by Patton (1990, p. 381). These codes were used to analyze the interview transcripts. The transcript segments were labeled using these codes. This component of the data analysis was done using the Ethnograph software package. The code used for the student and professor transcripts are listed below.

The student predetermined codes were:

- **P x Prog**: Participant’s reaction to program
- **P x C**: Participants reaction to course
- **P x P**: Participant reaction to other participants
- **P x I**: Participants reaction to the instructor
- **P x R**: Participants reaction to the researcher
- **P x L**: Participants reaction to learning
- **P x TS**: Participants reaction to the instructors teaching style
- **P x EI**: Participants educational ideology
- **P x Out**: Participant’s reaction to outcomes
- **GP**: Group Process
- **SR**: Self Reflection

The instructor predetermined codes were the same as follows:

- **I x Prog**: Instructor’s reaction to program
- **I x C**: Instructor’s reaction to course
- **I x P**: Instructor’s reaction to other participants
- **I x I**: Instructor’s reaction to the instructor
- **I x R**: Instructor’s reaction to the researcher
- **I x L**: Instructor’s reaction to learning
- **I x TS**: Instructor’s reaction to the instructors teaching style
- **I x EI**: Instructor’s educational ideology
- **I x Out**: Instructor’s reaction to outcomes
The questions which follow guided my “mental work” at each level of analysis and, in turn, shaped the themes identified and the interpretations made. Each level included a re-visit to the previous level(s) and was accompanied by many intermittent reviews of the data. This was done in accordance with Harvey’s (1990) assertion that “constant review of recorded material of all data helps reflexivity” (p. 10). The process of reflection was importance for each phase of this thesis research.

The questions posed at each level of data analysis are as follows:

1. What are the emergent codes in the student transcripts?
2. What are the emergent codes in the predetermined code categories?
3. What are the frequency of these codes?
4. How do these emergent codes (1 & 2) compare to student questionnaire data?

Establish student perspective summary
5. What are the emergent codes in the instructor transcripts?
6. How do these codes compare to the questionnaire data? Other data?

Establish instructor perspective summary
7. How does instructor perspective compare to the student perspective?

Establish researcher perspective summary
8. How does the researcher data relate to the “reliable themes”

Establish third party perspective summary
9. How does third party data fit into this picture?

Generate other perspectives from report feedback
10. What is instructor’s reaction to the final report?
    What is committee’s reaction to final report?
    What are preliminary readers reactions to final report? Which themes still stand strong?
The information presented here represents the quantitative measures taken from the survey data from all participants. Chapters Four and Five provide further discussion of this information within the context of other data collected throughout the research.

### Student Perspective

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar to other classes</td>
<td>42%</td>
<td>35%</td>
</tr>
<tr>
<td>Changed feelings after class</td>
<td>23%</td>
<td>40%</td>
</tr>
<tr>
<td>Instructor created effective learning environment</td>
<td>56%</td>
<td>33%</td>
</tr>
<tr>
<td>Indication of useful learning</td>
<td>60%</td>
<td>14%</td>
</tr>
</tbody>
</table>

### Student Responses

Note: Responses taken from a 5 point Likert scale

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Class Average</th>
<th>% Ratings Above 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived student contribution</td>
<td>2.3</td>
<td>29%</td>
</tr>
<tr>
<td>Student interest in class</td>
<td>3.2</td>
<td>71%</td>
</tr>
<tr>
<td>Student motivation</td>
<td>3.0</td>
<td>52%</td>
</tr>
<tr>
<td>Perceived instructor motivated learning</td>
<td>3.0</td>
<td>67%</td>
</tr>
<tr>
<td>Helpful relationship with instructor</td>
<td>2.9</td>
<td>65%</td>
</tr>
<tr>
<td>Estimated amount of student learning</td>
<td>3.0</td>
<td>73%</td>
</tr>
<tr>
<td>Degree of transformative learning</td>
<td>2.6</td>
<td>48%</td>
</tr>
</tbody>
</table>

42 Scores averaged over classes
Instructor and Researcher Perspective

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Instructor</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar to other classes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Changed feelings after class</td>
<td>a little</td>
<td>no</td>
</tr>
<tr>
<td>Instructor created effective learning environment</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Indication of useful learning</td>
<td>yes</td>
<td>very</td>
</tr>
</tbody>
</table>

Third Party Perspective

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Viewer 1</th>
<th>Viewer 2</th>
<th>Viewer 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar to other classes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Changed feelings after class</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Instructor created effective learning environment</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

Additional Responses

Note: Includes averaged responses from instructor, third party viewers and researcher

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Instructor</th>
<th>Third Party Viewers</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived student contribution</td>
<td>3.2</td>
<td>2.7</td>
<td>4</td>
</tr>
<tr>
<td>Student interest in class</td>
<td>n/a</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Student motivation</td>
<td>3.5</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Perceived instructor motivated learning</td>
<td>3.3</td>
<td>n/a</td>
<td>4</td>
</tr>
<tr>
<td>Helpful relationship with instructor</td>
<td>4.3</td>
<td>3.7</td>
<td>4.5</td>
</tr>
<tr>
<td>Estimated amount of student learning</td>
<td>3.3</td>
<td>2.3</td>
<td>4</td>
</tr>
<tr>
<td>Degree of transformative learning</td>
<td>2.75</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Perceived instructor interest</td>
<td>4.3</td>
<td>4.3</td>
<td>3</td>
</tr>
</tbody>
</table>

Bibliography

43 Scores averaged over both classes
44 Scores averaged over third party responses