Instructor Support for Self-directed Learning

in Higher Education

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Abstract

This study addressed the problem of instructor support for self-directed learning, specifically, learner-directed program planning, within a classroom setting in higher education. A combination of survey, interview, document analysis, and observation was used to assess and evaluate the attitudes and practices of a sample of full-time faculty at an Ontario university.

Eighty-seven percent of the study sample reported instructional beliefs, values, and expectations that were not supportive of self-directed learning, especially in terms of student participation in program planning. Planning was seen as the responsibility of the instructor. Instructors were least open to student participation in the planning of the evaluation of learning. However, there was considerable stated support for other of the basic principles of adult education.

The remaining 13% of the study sample reported instructional beliefs, values, and expectations that were fully supportive of self-directed learning. Instructional practices were analyzed in relation to the instructors' stated beliefs. Although practices reflected, in many instances, instructors' statements of support, there were

some significant discrepancies between apparent support for the concept of self-directed learning and actual classroom practice. Both beliefs and practice were compared to a research model of self-directed learning. Most instructors did not have a concept of self-directed learning as comprehensive as that described in the research model. Instructor support for self-directed learning was profoundly influenced by the university setting. It was concluded that more strenuous attempts to research, enhance, and promote instructional and institutional support for self-directed learning in higher education are warranted.

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CHAPTER ONE

INTRODUCTION TO THE PROBLEM

The focus of this study is on the teacher's role in learner-directed program planning in the context of higher education. Teacher beliefs, teacher values, and teacher practice concerning the active participation of adult students in course planning were investigated. It was presumed that the process of self-directed learning must incorporate learner access to the planning function; likewise, it was presumed that self-directed learning is feasible and desirable within learning groups as well as through independent study. This research project emphasizes the classroom environment, in which a group of students, along with a teacher, come together to learn about a given topic area. The broader context of the institutional setting is also considered.

Rationale

Teachers can help learners gain control over their learning by designing structures and processes that give them responsibility for learning within an educational program. Many strong arguments have been made for including self-directed elements in adult education programs. More than half a century ago, Dewey proposed that humans are born with an unlimited potential for growth and development; he defined education as the agency that facilitates this

growth. He cautioned that the teacher should be the one who guides but does not interfere with or control the process of learning (Dewey, 1916, 1938). Malcolm Knowles, who undoubtedly has had the strongest influence on practice in adult education over the past few decades, built his andragogical model on the basic assumption that the adult learner is self-directing (Knowles, 1975, 1980). More recently, Brookfield (1986) has extended the concept of self-directed learning to emphasize the learner autonomy that lies at the very heart of the process. Therefore, the first purpose of this research is to discover whether greater student autonomy through the means of self-directed learning is indeed a valued goal for the teachers of adults.

It could be said that the overall purpose of adult education is to help people gain greater power over their own lives, to enable them to take full responsibility for themselves. If teachers want to encourage a sense of personal responsibility for learning among adults, then certainly the teacher as program planner must involve adult learners in decisions related to the planning process. A strong emphasis on mutually negotiated planning, based on the needs of the learner, is found in the adult education literature (Brundage & Mackeracher, 1980). At the same time it is clear that most published planning strategies are designed for use by a teacher who is making planning decisions alone. This situation presents additional motives

for research. Do teachers value self-directed learning, but fail to make the connection between self-directed learning and learner involvement in program planning? Do teachers value the involvement of learners in program planning, but lack practical guidelines and models for transforming these beliefs into reality in the classroom? Is it the learners who lack practical guidelines and models for the effective planning of learning?

When the concept of self-directed learning is placed in the context of higher education, further questions arise. The university may be seen as a traditional institution where the importance of top-down administrative policies for the sake of improved organization might easily lead to the expectation that paid staff (i.e., faculty) would plan learning rather than the students (especially when students are paying for each course). In addition, there is the issue of the overall function of universities as degree granting institutions. Faculty are assumed to have an intellectual authority that enables them to assess what it is that students need to know, how they should go about learning it, and whether, in fact, students have learned the required information and skills by the end of each course (Heron, 1981). Faculty might want to assume a large measure of control over the planning of learning if they feel accountable for the outcome of the educational experience. A third purpose of the study is to determine whether

teachers' support for self-directed learning is affected by institutional expectations, and whether teachers' capacity to involve students in program planning is restricted by institutional constraints. Is lack of support throughout the system seen as a significant stumbling block for teachers who are committed to learner directed program planning?

The literature does not include any studies documenting the overall extent of classroom teaching practice that is supportive of self-directed learning within institutions of higher education. There are a number of case studies reporting on self-directed learning programs (for several examples see Part 2 in Boud, 1981). The fact that these programs are reported in the literature as examples of innovative approaches to university education, along with the anecdotal evidence of adult learners, suggests that the practice is not as common as the adult education literature implies that it could be. It seems clear that there is a need to know more about current teacher practice in this area, as well as the reasons behind these practices, if learner-directed program planning is to be advocated in higher education.

Research Questions

The overall purpose of the study is to describe the extent and nature of teacher support for self-directed

learning in higher education. Specifically, it addresses the problem of learner-directed program planning within a classroom setting. The focus is on the role of the teacher. The questions to be answered are as follows:

Do teachers want adult learners to plan their own learning? (Is student participation in program planning valued?)

What do teachers say?
(What are stated values/beliefs/expectations?)

What is teacher practice within the classroom?
(Do teachers have in place structures/processes that give responsibility for planning to the students?)

Do teachers perceive the university system as reflecting their needs/beliefs?
(Do teachers feel that institutional policies support their preferred practice?)

Definition of Terms

Adult education - any organized, sustained activity engaged in by adult persons for the purpose of changing their knowledge, skills or values. Education is planned learning.

Adult learner/student - a person beyond the age of compulsory school attendance who engages in educational

activities for the purpose of bringing about changes in knowledge, skills, or values.

Instructional development - activities designed to improve the quality of instructional processes.

Learning - a change in behaviour that occurs as a result of experience, and the behaviours used in the process of change.

Program planning/instructional design - a purposeful and deliberate process, using systematic procedures, for designing learning experiences, the net result of which is a plan.

Self-directed learning - a process of learning in which individuals function autonomously, taking the responsibility (with or without the help of others) for planning, initiating, and evaluating their own learning efforts.

Teacher/instructor - a person who assumes the responsibility of assisting another person in the process of learning through educational activities. In adult education, the teacher may play a number of roles, including facilitator, expert, manager, resource person, mentor, or leader. In a classroom situation, there is usually one teacher/instructor per group of learners.

Teacher attitudes - learned predispositions to respond positively or negatively to certain objects, situations, concepts, or persons. An organization of several beliefs around a specific object or situation.

Teacher beliefs - reflect the information that a teacher has about a given topic. The subjective probability that a certain thing is true.

Teacher values - those beliefs that act as criteria by which an estimation of merit or worth can be made, which are used by teachers in making choices or designating preferences. Moral, intellectual, and personal principles that guide teaching practice.

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No doubt the most satisfying educational experience, for learners and educators alike, occurs when the sense of individual control brought on by becoming aware of one's unique style and by negotiating individual curricula and objectives is married to an involvement in an ongoing learning group in which one's ideas, experiences, and achievements are subjected to collective exploration and interpretation by group members.

- Brookfield (1986, p. 63)

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CHAPTER TWO

REVIEW OF THE LITERATURE

In this chapter, the literature will be reviewed in
three broad areas. First, the literature on the theoretical
background and principles of practice in adult education
will be reviewed. Next, an overview of the higher education
literature will be provided to position the research
setting. The third area to be discussed is the literature
on course and program planning, most specifically related to
adult education. A brief review of directly related
research will follow. The chapter will conclude with a
description of the theoretical basis for the research
strategy to be used.

Theories of Adult Learning

The essence of adult education is the
facilitation of adult learning.

- Mezirow (1984, p. 115)

The purpose of this first section is to review the
literature on theories of adult learning and the related
principles of practice in adult education.

As noted in Chapter One, it is important to return to
the work of Dewey (1916, 1938) when beginning a study in

adult education, for much of current thought is grounded in his writings. As a major exponent of progressive education, Dewey proposed a number of basic principles, including the following:

1. Education is a continuous endeavour related to the whole of life.

2. Humans are born with unlimited potential for growth and development; education is the agency that facilitates this growth. A teacher is one who facilitates and guides but does not interfere with or control the process.

3. Experience is at the heart of human living and learning. Dewey advocated the application of the scientific (problem-solving) method to reflective experiences.

4. A social model of education is required, a model emphasizing democratic process. Dewey recommended group investigation as a teaching strategy, a method combining the form and dynamics of democratic process with the process of academic enquiry.

Lindeman (1926) was the first to extend, interpret, and apply Dewey's ideas to adult education, and thereby provided a firm humanistic foundation for further development in the field. He described adult education as "a cooperative venture in non-authoritarian, informal learning the chief purpose of which is to discover the meaning of experience; a quest of the mind which digs down to the roots of the preconceptions which formulate our conduct; a technique of

learning that . . . elevates living itself to the level of an experiment." (Lindeman, cited in Brookfield, 1987, p. 4)

In 1973, UNESCO published the results of a study of educational practice throughout the world (Learning to Be, Report of the Faure Commission, 1973). In this report it was argued that the human activity of learning is more fundamental than education, which is merely a response to that potential, and that it would be wise to enlarge the study of learning if we are to understand the true nature and function of education. It was also suggested that adult education is of equal importance to that of the young.

Since that time, a great deal of work has been done towards providing insight into what adult learning is all about, and what methods are appropriate for the facilitation of learning. Tough (1971) conducted and reported on several studies of the highly deliberate independent learning efforts (learning projects) made by men and women. He demonstrated that when adults learn on their own they tend to sequence the learning steps, pace themselves, use resources, and present and assess their learning in ways that are uniquely their own. The implication was that teachers who wish to facilitate this learning should follow the natural flow of the process, rather than impose a teacher-made structure on the learner.

Malcolm Knowles (1975, 1980, 1984) has had the strongest influence on practice in adult education since the mid 1970s. He is often called the father of "andragogy", which he defined as "the art and science of helping adults learn" (Knowles, 1980, p. 30). Knowles' andragogical model rests on a number of basic assumptions about adult learners:

1. The learner is self-directing. Self-directedness is a developmental characteristic; persons normally move from dependency towards independency as they mature.

2. The learner's experience affects learning.

3. Readiness to learn occurs when there is a desire to perform effectively.

4. The orientation of learning is life-centered, task-centered, problem-centered.

5. The potent motivators to learn are internal ones such as improved self-esteem, self-confidence, or a better quality of life.

Knowles' assumptions have important implications for those who hope to facilitate adult learning. Most notably, it is implied that the main function of the teacher is to foster self-directedness in learners. As others have pointed out, many of his assumptions have now become the basis for commonly accepted practice in adult education.

Knowles centered out the individual in the learning situation and suggested methods for encouraging self-

directedness. Freire (1970, 1973, 1985) situated Knowles' work in a social and political context by emphasizing the social milieu within which learning occurs, and the relationships of power between learner and teacher that must be carefully considered. He proposed a participatory approach that is realized through dialogue and communication.

For Freire, the purpose of education is liberation - it is the method by which learners come to act upon their environment to change it. It is achieved through a permanent critical approach to reality that focuses learners' awareness on the forces that affect their lives. The role of the teacher is to understand the learner's environment, and to stimulate learning through critical reflection, problem-solving, and collaborative action, thereby empowering the individual. "Doing with" is a cornerstone of Freire's approach to adult learning.

Mezirow (1981) has made a unique contribution to the developing field of adult education with a comprehensive theory of adult learning and teaching that ties together several key issues - self-direction, critical reflection, and problem-solving approaches within a social context. He introduced the concept of Perspective Transformation, defined as the uniquely adult learning process by which persons come to recognize, through reflection, their

culturally induced roles/relationships and the reasons for them, and take action to overcome them. Mezirow believes that education for perspective transformation enhances the learner's ability for self-direction by helping adults construe experience in a way that clarifies the reasons for problems and helps them to understand options for change. The learner may then assume responsibility for decision-making.

A critical evaluation of current knowledge and practice in adult education has been provided by Brookfield (1986). He acknowledges the substantial contribution of Knowles' andragogy model, but suggests that self-directed learning may not always be both the goal and the method of adult education. He believes that autonomy is at the heart of self-directed learning and that autonomy is dependent upon an understanding and awareness of a range of alternative possibilities. Learners must come to see their personal and social worlds as contingent and, therefore, open to individual and collective interventions; this motivates them to acquire skills and knowledge to intervene. "When the techniques of self-directed learning are allied with the adult's quest for critical reflection and creation of personal meaning after due consideration of a full range of alternative value frameworks and action possibilities, then the most complete form of self-directed learning is exemplified." (Brookfield, 1985, p. 11)

Brookfield describes the overall purpose of facilitation as assisting individuals to begin to exercise control over their own lives. He suggests four criteria by which to judge the worth of any effort to facilitate learning:

1. It develops a sense of personal power and self-worth. (CONTROL)

2. It develops a willingness to speculate on alternatives. (REFLECTION and CRITICAL ANALYSIS)

3. It develops an awareness of the contextuality of knowledge and beliefs. (VALUES)

4. It develops the capacity to actually recreate personal and social worlds. (ACTION)

Summary

This review has clarified that adult learning theory places experience at the heart of learning, and values a learner-centered approach to adult education. Clearly, theory implies that the effective teacher of adults focuses on learning topics and tasks that learners have identified as meaningful to them, and accepts that the power for growth and development is in the learners' hands.

Though the notion that self-directed learning is a "given" in adult education is not supported by all adult learning theorists, all agree that adult learners should be encouraged to take personal responsibility for their

learning projects. It seems quite clear that the role of the teacher in adult education is, generally speaking, to help adults learn. If self-directed learning is the goal, then this help must include assistance for adults in freeing themselves from externally imposed direction in their learning, and in coming to see themselves as competent, capable learners.

Facilitating Adult Learning

Each individual's aspirations to self-learning must be realized by providing . . . the means, tools, and incentives for making personal studies a fruitful activity.

- Faure Commission

(as cited in Knowles, 1975, p. 66)

The purpose of the next section is to examine a number of recommended processes for facilitating adult learning. This is a very selective review. For a more extensive review of this topic, the reader is referred to Brundage and Mackeracher's report that synthesizes the findings from the literature on adult learning into comprehensive learning principles. This section will attempt to briefly answer the following questions: How can teacher and learners effectively interact with each other as they go about the business of learning together? Which learning processes and

strategies should be used to foster student autonomy?

Teacher-Learner Roles and Relationships

A learner-centered approach to adult education that values learner self-directedness implies a certain set of skills for the teacher as facilitator. Recommendations for practice have been made, and the characteristics of a good facilitator are generally agreed upon. Galbraith (1989) has compiled and categorized a list of essential skills that have been recommended in the literature. Of particular importance when discussing the teacher-learner relationship is the category of "transaction skills". It seems that the quality of the relationship between learner and teacher determines, to a great extent, the nature and impact of the educational experience. Rogers (1969) especially emphasized the interpersonal, relationship-building skills that are characteristic of effective teachers. The teacher who uses the basic helping skills of attending, responding, and understanding fosters communication with learners and facilitates learning process (Brockett, 1983).

Others have emphasized the role that the teacher must play in relation to the role of the learner in a given learning situation. When learners are expected to be fully involved in the learning process, the nature of the corresponding teacher role is affected. Shuttenberg and Tracy (1987) have proposed that facilitators of adult

learning must be able to take on any one of three teaching roles, depending on the level of learner development in self-directed learning: the leader who directs, the collaborator who coaches, and the colleague who models.

A connection can also be made between teacher role and student and teacher learning styles (Fuhrmann and Grasha, 1983). The social interaction models of learning style are of particular interest with respect to the teacher learner relationship. Both the Fuhrmann Jacobs model and the Grasha Riechmann model identify a number of classroom learning styles such as dependent, collaborative, and independent, and suggest specific teacher roles for each of the learner styles. Both propose that no one style is better than another although one may be more appropriate for a given context. A match between the learner's style preference and the teacher's style is said to lead to the most positive learning outcome.

In studies designed to test the model, it was discovered that the learning style preference of the learners can be influenced by teacher behaviour and classroom structure. "Classroom environments that included group activities, individual projects, and requirements for extensive student participation led to students adopting collaborative, independent and participatory roles, while students in traditional lecture oriented classroom

environments tended to approach the learning situation with competitive, dependent, and avoidant styles" (Fuhrmann and Grasha, 1983, p. 124).

Conti (1978) takes another look at teaching style and the teaching learning transaction from a perspective that values the development of learner autonomy through active participation in the learning process. Conti (1985) is committed to the collaborative mode as the most effective and appropriate style for teaching adults, despite his observation that there is a wide variety of teaching and learning styles, and despite his acknowledgement that adult learners are not always prepared for or interested in such a style of classroom interaction. He clearly describes the collaborative mode as a method of instruction in which authority for curriculum is jointly shared by learner and practitioner. It is process oriented and depends on active student participation in all phases of the learning process: planning, implementation, and evaluation.

In summary, a facilitator of adult learning must be skilled in building positive relationships with and among learners. Though interaction styles will vary depending on the personal characteristics of teachers and learners, collaborative relationships are particularly suited to adult education. A participatory role for learners encourages collaborative relationships and establishes a sense of

ownership over the learning process.

Competencies for Learning

When adult learners are given the opportunity to make
more learning decisions for themselves and to participate
collaboratively in classroom decision making about learning,
they often develop a keen interest in the process of
learning. Learners want to find out more about themselves -
how they like to learn and learn best, and how that differs
from the learning style of others. Self-directed learners
must have at their disposal a variety of skills, strategies,
and competencies that enable them to manage their own
learning projects; by including instructional activities
designed to enhance learner competencies, the capacity for
self-directed learning is increased.

The development of such skills, strategies and
competencies is often termed "learning how to learn".
According to Nisbet and Shucksmith (1986), learning how to
learn involves two aspects: learning strategies, especially
transferable macrostrategies, and metacognition, or
reflection. Learning strategies are required for such
processes as problem-solving, decision-making, and research.
Metacognition involves two primary aspects: knowledge and
control of self and knowledge and control of process
(Marzano, Brandt, Hughes, Jones, Presseisen, Rankin, and
Suhor, 1988). Learning how to learn is best accomplished by

direct training in a variety of levels of skills and
strategies, accompanied by an effort on the part of the
teacher to encourage a degree of self-awareness and self-
monitoring of learning performance. While the research
experiences of Nisbet and Shucksmith have demonstrated that
it is difficult to translate the theory of learning to learn
into classroom practice, they do believe that the capacity
to reflect critically and to respond flexibly in learning
can be developed in adults - if they recognize the need for
it.

The concept of learning how to learn has been described
by Smith (1982) in a manner that is rather more inclusive of
the concept of self-directed learning. He states that in
order to become a skilful director of one's own learning, an
adult requires:
1. an understanding of the assumptions underlying this mode
of learning;
2. an understanding of the processes involved in learning,
such as planning, implementation, and evaluation;
3. a chance to gain facility in implementing these
processes.

In short, it appears that teachers can encourage
learner autonomy through classroom practice. Learning to
learn can include development of a wide variety of abilities
such as how to use teachers and peers as resources, time

management skills, and adapting learning tasks to suit one's personal learning style, as well as creative and critical thinking skills and awareness of self and process through reflection. The overall goal is to improve the learner's capacity for self-direction.

Summary

This review of recommended processes for the facilitation of self-directed learning has revealed several general principles of practice. Learning experiences should:

1. actively involve learners in a process aimed at resolving learner needs and concerns;

2. be characterized by positive and collaborative relationships; and

3. develop students' capacity for managing their learning projects.

Teaching and Learning in Higher Education

The literature in higher education encompasses a diversity of issues, research, and ideas concerning the general educational processes of faculty development, teaching, learning, and the curriculum. Although higher education may be seen as a subset of the broader category of adult education, virtually no connection is made in the literature between the two fields of studies. Boud (1981)

points out that higher education and adult education share a common interest in the goal of developing student responsibility in learning. Cranton (1989) has demonstrated that approaches to planning instruction for adult learners are fully applicable in the university or college setting. Yet, higher education literature makes little reference to the literature of adult education.

Higher education literature focussing on learner characteristics and the learning process is sparse and is mostly related to theories of learner development (as in the work of A.W. Chickering, K.P. Cross, and W.G. Perry). By far the greatest attention is on the teaching function, with a particular emphasis on how it can be improved. This situation may be a consequence of faculty's dual responsibility for teaching and research within the university environment. In a way, teaching is considered a "secondary" role for university faculty, in comparison with their role in research. Prior to appointment on staff, most faculty have spent far more time developing a firm knowledge foundation in an academic discipline and the basics of good research practice than they have in constructing a concept of self as teacher. Much of the literature in higher education aims to develop the instructor's teaching function since formal training has been, in most cases, virtually nonexistent and there is concern that all might not be as it should be in the university classroom. The teacher's role

as a scholar and researcher also seems to have important consequences for the approaches to teaching and learning that are used in higher education. Teaching is seen as a way of sharing one person's extensive knowledge of a particular area with other persons who are less knowledgable. This issue of the relationship between knowing a subject (situated within an academic discipline) and

knowing how to teach it to students is a common one in the literature, as is the relationship between the one who knows (instructor) and the one who does not (student).

Effective Teaching

Teaching Masters. One approach to the problem of defining effective instruction has been to study recognized "teaching masters". For example, in a study of teachers who had been identified as excellent by alumni of Canadian universities, Sheffield concluded that the most important aspect of lecturing was "to stimulate students to become active learners in their own right." The importance of caring for students, love of subject, preparing properly, and conveying principles rather than details were also stressed. However, the most notable conclusion was that there was great variation among effective instructors and that no one way could be advocated as best.

Empirical Research. Extensive research on the effectiveness of instruction in higher education has been

conducted over the years. The primary method for assessing effectiveness has been the evaluation of instruction through student ratings. Ratings are taken on characteristics that are believed to represent good teaching practice. Results from these evaluations are used to define dimensions of effective practice. There seems to be some agreement in the research literature that organization and clarity of presentations, enthusiasm, and abilities to interact with students are desirable teacher attributes (Fuhrmann & Grasha, 1983,). However, comprehensive and critical reviews of this research have identified serious limitations in this approach to measuring effectiveness. One significant problem is that results were dependent on the nature of the evaluation instrument used, and instruments were most often not based on a theory or model of teaching (Abrami, 1985; Cranton & Knoop, 1990). Faculty or student committees would develop forms based on their perceptions of effective teaching. Also, the context in which instruction takes place was rarely taken into account. Cranton and Knoop (1990) propose a model in which effectiveness is conceived of as the product of instructor and learner characteristics, working conditions, course characteristics, and instructional strategies employed in a specific setting. The effective instructor is the one who acts appropriately in terms of the instructional context.

Prescriptive Literature. Most books aimed at the

university or college instructor either state or imply that effective teaching consists of a set of fundamental skills that can be acquired, improved, or extended. These books then proceed to suggest a series of practical hints for improving practice. Examples of such approaches are Gullette (1982), McKeachie (1986), Lowman (1984), Newble & Cannon (1989), Brown & Atkins (1988), Eble (1988), Fuhrmann & Grasha (1983). Texts vary in the degree to which recommended practice is based on evidence obtained through research or on the author(s)'s personal philosophy, experiences, and background. For example, McKeachie's Teaching Tips: A Guidebook for the Beginning College Teacher (1986) is just that - tricks of the trade, which he has found useful in running classes. Research evidence for the validity of his suggestions is provided, but it is clear that McKeachie is recommending these practices because they have worked for him. In Brown & Atkin's Effective Teaching in Higher Education(1988), on the other hand, different strategies are presented in a rather factual way, with supporting research clearly in evidence. The expectation is that an instructor will choose to use those that suit best.

The implication for the instructor reading these books is that by learning "how to" teach, teaching effectiveness will improve. Not all of these authors suggest, however, that acquisition of teaching skills is sufficient in itself to ensure that teaching is as effective as it can be. Most

agree that an instructor's philosophy of teaching determines the broad instructional goals which, in turn, influences the selection of methods for teaching. But they vary in the amount of attention they put on instructor analysis of personal philosophy.

While McKeachie (1986) does not suggest that instructors examine their goals, he does acknowledge that the level of agreement between his own philosophy of teaching and that of the reader will affect the likelihood that they find his advice useful. Therefore, he presents his own philosophy, which can be summarized as:

1. Education should be guided by democratic philosophy.

2. Students are adults.

3. Instructors can occasionally be wrong, and must be prepared to acknowledge this to students.

4. Increasing students' motivation and ability to continue learning after leaving college is an important goal.

5. Most student learning occurs outside of the classroom; the students' education will neither succeed nor fail simply on the basis of the teacher's classroom performance.

Brown and Atkins (1988) state that effectiveness in teaching is best determined in relation to the instructor's own goals, and suggest that what is effective in one context may not be so effective in another. From their perspective, effective teaching is concerned not only with success, but

also with appropriate values, and teaching strategies should be considered in the context of what instructors and students value. They indicate that one of the most important aspects to consider when selecting methods is the desired level of student control and participation over the process. The various methods of teaching are placed on a continuum ranging from methods where student control and participation is minimal (e.g., lecture) to methods where instructor control and participation is minimal (e.g., private study). An instructor who aims for a high level of student control but chooses instructional methods that are at the lecture end of the continuum, will certainly be disappointed in the outcome and will not feel effective.

Fuhrmann and Grasha (1983) propose that instructors must define effectiveness in terms of their own unique circumstances by analyzing what they want to accomplish in the classroom and the methods they believe are best to use. They suggest that a personal definition of effectiveness is based on the assumptions that all instructors have about teaching and learning, some of which are more useful than others. Therefore, the first step is to decide if old assumptions should be kept or if new ones are needed that will enhance effectiveness. Assumptions about teaching that would enhance effectiveness meet the following criteria:
1. They are based on clear educational goals and values that were selected after considering and testing alternative

points of view.

2. They are consistent with university, college, and departmental educational goals and values.

3. Some assumptions relate to information in the literature on teaching and learning. They have a base other than personal bias.

Summary

Certainly it is obvious that instructional practice in higher education cannot be divorced from the university setting. McKeachie warns that the influence of setting should not be underestimated: "Instructors who attempt to revolutionize teaching with new methods or techniques may find they are only frustrating the needs and expectations that their students have developed in the culture of the college" (McKeachie, 1986, p.6). His recommendation is that new approaches must always be adapted to the higher education setting and its concomitant culture.

At the same time, there is an ever-growing emphasis on the provision of effective instruction as defined by the instructor. It is accepted that the instructor has legitimate educational goals and is, therefore, the best person to select instructional methods that will bring about these goals. While there is little information in the literature related to the nature and influence of learner characteristics, there is an expectation that the instructor

will somehow consider learner needs as well as many other factors when planning instruction.

It is apparent that each of the two literatures that have just been reviewed have a different focus: The adult education emphasis is on characteristics of the learner, while the emphasis in higher education is on characteristics of instruction and setting. One begins to wonder to what extent university teachers, who are expected to provide effective instruction within the confines of the higher education setting, consider the self-directed learning needs of their students.

Planning for Learning

The fact that learners' freedom to negotiate their curriculum is usually a sponsored freedom, won for the learner by the efforts (shrewd or reckless) of an unconventional formal teacher, should not detract from the striking impact on learners of entering and taking possession of unaccustomed educational 'space'. To find the role of teacher/manager 'empty', to proceed to fill it in complex and contested ways, to draw on one's own experience and understandings to craft words and terms for doing so, and to reflect on this task and process, is itself a form of adult learning with great potential.   - Millar (1989, p. 161)

It is clear that the adult education literature supports the belief that adult learners should be given responsibility for their own learning, and the idea that the best classrooms promote collaborative learning within a community of peers. The higher education literature supports the notion that the instructor must choose appropriate instructional strategies in relation to their own goals and in the context of the institutional setting. It is when an instructor is engaged in the planning process that decisions must be made concerning the relative importance of all these variables (i.e., goals, learner characteristics, setting). Consequently, program planning provides an area of practice in which teacher commitment to espoused beliefs can be investigated. The purpose of the next section is to review the literature on planning for adult education, and relate it to the context of higher education.

The Design of Education (Houle, 1973) is a classic in the field of curriculum development and as such provides a basic introduction to this topic of planning. Houle proposes a generic model of curriculum design that requires two complimentary actions: first, the examination of the situation in which learning occurs, and second, the application of a basic framework to the situation. He suggests that the best way to categorize different learning situations is according to the source (individual, group,

institution, or mass population) of authority and direction for planning and control. He does not believe that any one category is preferable to another, but that different categories are more or less suited to attainment of different instructional goals. He emphasizes that the differences between situation categories are particularly sharply felt when "a group believes itself to be in one situation and its leader believes himself to be in another."

The second part of Houle's model consists of a series of decision points related to setting up a plan for instruction. It is a variation on the basic Tylerian 5-step model that is commonly referred to in educational planning literature as:

1 - Conduct needs assessment

2 - Set learning objectives

3 - Choose methods and resources

4 - Implement

5 - Evaluate

Brookfield (1986) believes that there is a theory-practice disjunction common in much of adult education, and puts the blame for this problem on the dominance of this institutional (Tylerian) method of program planning. Because the model focuses on the attainment of predetermined objectives, it does not allow for unanticipated learning during the course of a program. Brookfield comments that,

although this model is not unchallenged, it has assumed

dominance as a result of scientific, technological

approaches among educators in the 50's and because of

current pressures to develop cost effective programs.

Brookfield cautions that attempts to develop programs along

different lines will frequently be contradicted by

institutional constraints.

Geis (1987) disagrees with Brookfield's accusation that

instructional design approaches are to blame for

institutional climates that are not supportive of

alternative program designs. He points out that

instructional design, which is an approach to education

revolving around the development of instructional systems,

in fact is not often used in practice. Geis examined the

similarities and differences between adult education and

instructional design, and concluded that the two fields may

learn from each other. He suggests that planning in adult

education and in institutions could both be improved with a

greater emphasis on principles of instructional design.

However, the question of who has control over the

instructional design process must be reconsidered. He

concludes that the adult learner needs to develop the skills

of the systematic instructional designer.

Knowles (1980) did make significant improvements to the

basic 5-step model of planning by contributing two important

additions to the procedure: First, involve learners in the learning process, and second, as a means of encouraging this involvement, establish a learning climate that is supportive of learners and conductive to developing mutual respect and trust among learners and teacher.

Knowles (1975, 1980) advocated the use of learning contracts as an important format for learner-directed program planning. He suggested that a learning contract would help learners to structure their own learning, thereby developing learner capacity to be self-directing. Contracts make visible the mutual responsibilities of learner, institution, and teacher.

There are difficulties with Knowles' learning contract approach to program planning. As he proposes it, it is quite a structured and formal approach. And it retains the Tylerian emphasis on objectives, posing problems for learners who enter learning situations with quite vague ideas of what they hope to accomplish. These drawbacks put limits on the use of contracts as a flexible "learning how to learn" strategy, and may contradict the establishment of a supportive climate. The strength of contracts lies in the fact that the learner maintains ownership of the learning process, while responsibility is shared between learner and facilitator. There is some evidence in the research literature that the use of learning contracts in graduate

level courses can have some impact on developing students'
competencies for self-directed learning (Caffarella, 1983;
Caffarella & Caffarella, 1986).

As a result of Knowles' work, learning contracts have
been used in a wide variety of settings, including higher
education (Avakian, 1974; Buzzell and Roman, 1981; Bauer,
1985). Unfortunately, it seems that they are most often
used as an administrative tool to ensure that institutional
requirements are met while learners proceed with independent
study, and have very little to do with adult education
principles in practice.

Others have built on the work of Knowles, proposing
that the involvement of learners in the planning process
does not necessarily include the use of learning contracts.
Brundage and Macharacher (1980), as part of an extensive
review of the literature on adult education and effective
planning, made recommendations and observations concerning
practice. They point out that planning implicitly involves
a set of values about learners and learning and that an
important step in program planning is to make these values
explicit to the learners. They describe good planning for
adult group learning as a collaborative effort between
learner and teacher. And they conclude that planning is an
evolutionary process characterized by instability; good
plans are emergent, highly flexible, responsive to feedback,

and changeable at any time.

Millar (1989), approaching the problem from the perspective of critical theory, calls for a process of "curriculum negotiation". If the principle of learner autonomy is to have an emphatic influence on the practice of adult education, change must be implemented at a most basic level: The class must construct the terms of its educational practice. Learners take responsibility for and shape the course in which they have agreed to participate, through a process of critical reflection and committed action. Millar, Morphet, and Saddington (1986) report on the use of this process in the university classroom and make it quite clear that the task is difficult, but worthwhile. Both learner and teacher must engage in an open ended and continually evolving process that can bring with it a whole new set of problems to be resolved.

It seems that a teacher must be quite clear about what the intended outcomes are when encouraging learners to participate in the planning process. There is little evidence in the literature to support the idea that learner satisfaction and/or achievement will necessarily be greater when learners participate in planning (Cole and Glass, 1977; Rosenblum and Darkenwald, 1983). There IS evidence that it places additional demands on both learner and teacher (Boud and Prosser, 1980; Millar et al., 1986). Kowalski (1988)

suggests that participation, if properly managed, will do no harm, and is therefore a practice to be recommended in light of its potential benefits to the learner. However, given the inadequacy of currently available planning models and the reported inherent difficulties in this approach, it seems that the rationale for the process can only be found in a belief system that places a very high value on learner autonomy in a social context. Only then will a teacher be prepared to search for and experiment with methods for making the process work in the classroom; only then will a teacher be able to defend the practice, and only then are the learners likely to feel the true benefits of directing their own learning.

Related Research

The purpose of this section is to report on those studies in the literature that are directly related to the research question.

Very little empirical research has been conducted to validate the general principles of adult education. Starting from the learner's perspective, Lam (1985) studied the discrepancies between expected and real learning experiences of university and community college students from an andragogical perspective. Results indicated that faculty tended not to apply the principles of adult education, although the majority of learners expressed a

desire for more partership in the planning, organizing, delivering, and evaluating of courses. The conclusion was that the principles of andragogy remain valid as instructional guidelines for postsecondary institutions.

Two studies are reported on that were designed to investigate the differences between teaching adults and pre-adults. Beder and Darkenwald (1982) concluded that teachers' reported adult teaching practices are in agreement with andragogical principles. Teachers were responsive and learner-centered when teaching adults to the extent that they perceived adults to be motivated, pragmatic, self-directed, and task-oriented. In another look at the same problem, Gorham (1985) included analysis of observed as well as reported teaching practices. While teachers in this study reported teaching adults in accordance with adult learning principles, there was in actual practice little evidence of a student-centered and responsive approach.

There is very little data available about the course planning processes used by college instructors. A review of the research literature by Stark & Lowther (1986) showed that instructors have seldom been asked how they plan their courses or what influences them in doing so. These researchers have undertaken a series of studies in this area. They have reported that course planning typically is completely individual and often informal (Stark, Lowther,

Ryan, Bomotti, Genthon, Haven, and Martens, 1988). Their latest reported research examined influences on course planning of over 2,000 faculty teaching introductory courses at 97 American colleges (Stark, Lowther, Bentley, and Martens, 1990). Faculty were asked to judge how strongly each of 80 survey items influenced them in course planning. It was concluded that context or situation was far less influential in course planning than content or discipline. Faculty drew heavily upon their background and expertise in their academic field to make planning decisions. The researchers seemed surprised by the strong reported influence of students on course planning; many faculty reported that plans were adapted to suit certain student characteristics.

Strategy for Research

A great many people think they are thinking, when they are actually rearranging their prejudices.

- Edward R. Murrow

There have been many critiques of the present state of research in adult education. By and large they decry the lack of a research base for recommended practices and the lack of a theoretical base for research designs. Usher and Bryant (1989) have taken a comprehensive look at the relationship between theory, practice, and research in adult

education. They suggest that a view of adult education as a "socio-practical" field of inquiry may lead to a more realistic concept of research. In a socio-practical field of enquiry, considerations of welfare and contextual constraints are paramount, and theory is instrumental to taking effective action to resolve acknowledged practical problems. The role of the practitioner is crucial - they are in the best position to define and resolve problems since they have the knowledge and understanding of the specific context, immediate problems, and the limitations and possibilities of action.

It has always been assumed that the study of adult education begins with consideration of the knowledge contained in formal theory (mainly psychological theory). However, it is not clear whether the theoretical body of knowledge that has developed in adult education actually relates to practice in adult education. Usher and Bryant believe that the best way for adult education to generate its own theory is to start from the practical knowledge and informal theories of practitioners. Theories developed in this manner will be useful to practitioners who want to act in the world in an informed and committed way.

Usher and Bryant point out that informal theory of practitioners may not always be guiding practice in a most productive way. Practice may also be routine and

habitualized. Thus, informal theories of practice cannot be the sole basis for a formal theory of practice. They suggest that informal theories and practice be "reviewed" through formal theory. Formal theory can be used to bring critical analysis to bear on a problem of practice, a way to view the problem differently that may lead to a solution in practice, and ultimately to improved theories of practice. Theory comes from practice, informed by formal theory.

A comparable approach to resolving the theory-practice dilemma has been proposed by Novak (1988, 1990). In an argument for the adoption of a constructivist theory of educative practice, Novak points out the connection between Dewey and George Kelly. "Both (Kelly and Dewey) emphasized the process by which theories develop within the dynamics of individual and social practices, are put into more abstract form for analysis and refinement, yet need to be continually returned to practice for validation and extension" (Novak, 1990, p.236). Kelly, as a constructivist, reminded us that all our perceptions of events are open to question and reconsideration, and that any event may appear utterly transformed if it is simply construed differently (Bannister and Fransella, 1980). Alternative constructions are set up not as ideals, but as hypotheses to test, and may be particularly helpful when current constructions are not serving us well. A construct system is theory being put to the test, and as such holds promise of being a useful

approach to educational practice, theory, and research.

These recommended strategies for research in education seem particularly suited to the research questions posed in this study. They both emphasize respect for the informal theories of the instructor engaged in practice, and acknowledge the importance of educational context. Yet they allow that the mundane may sometimes cloud practice and that it can be helpful to review practice through different eyes. It is proposed that a review of practice in higher education from the perspective of an adult education model may shed some light on problems of practice, and may also advance the development of theories about self-directed learning.

CHAPTER THREE

METHODOLOGY

In this chapter, a brief method overview will first be provided. The research model which guided the development and implementation of the methodology will then be described. Next, instrumentation, selection of subjects, procedures used, and data collection and analysis methods will be discussed. The chapter will conclude with a look at the potential weaknesses and limitations of the study.

Method Overview

A descriptive research design was used to assess and evaluate the attitudes and practices of a sample of university instructors concerning self-directed learning. A combination of survey, interview, document analysis, and observation was used to delineate attitudes and practices and clarify relationships between them.

All full-time faculty at an Ontario university were asked to complete a survey concerning instructional orientation in order to determine whether or not self-directed learning, particularly learner-directed program planning, was a valued approach to learning and instruction within that setting. Of the total number of faculty who returned surveys, the majority were classified, on the basis of their responses, as not supportive of self-directed

learning. The remaining number, classified as supportive of the self-directed approach, became the study group. To assess the extent to which the study group's stated support for self-directed learning was put into practice in the classroom, three approaches to collecting data concerning instructional practice were taken:

1. The study group completed a second survey, in which they described instructional practice.

2. The study group was observed engaged in instructional practice within the classroom setting.

3. Course materials, used by the study group to describe course structure, methods, and expectations to students, were collected and reviewed.

Practice was analyzed in relation to stated beliefs. Both beliefs and practice were compared to a research model of self-directed learning. Finally, interviews were conducted with members of the study group, and also with several instructors who had been identified by the Orientation Survey as not supportive of self-directed learning. The result was a description of the extent and nature of instructional support for self-directed learning, particularly learner-directed program planning, at this university.

Research Model

The overall purpose of this research study was to

describe the attitudes and practices of university instructors in relation to an approach to education that has been identified in the literature as self-directed learning. This same literature has identified the self-directed approach as a valuable approach to education for adults. However, it is not the assumption of this study that the self-directed approach to learning and instruction has greater value than other approaches in the university setting. Nor is it assumed that the self-directed approach will result in improved student learning. The purpose is simply to review university instruction from a perspective which does value the self-directed approach to learning. To this end, it was necessary to have a clear operational framework of self-directed learning within which recorded attitudes and practices could be placed for the purposes of comparison.

Based on the review of the literature in adult education, a working model of a learner-directed approach to education within a group setting was defined (see Figure 1). The model describes the conditions that are present in a learning experience that is truly a self-directed one. The four major categories of the model are Structure, Climate, Learner Engagement, and Learner Competencies. Key indicators within each of the categories describe the specific learning conditions. It must be noted that the conditions described by the indicators in the Structure

Figure 1. Research Model for Self-directed Learning


```
************
MODEL FOR SDL
************
```


1. STRUCTURE

    a) Flexible emergent plan, responsive to learner needs

    b) Options for choices, ie. learner control over:
        -participation
        -objectives
        -content
        -methods
        -materials
        -pace
        -evaluation

2. CLIMATE

    a) Supportive

    b) Collaborative

3. LEARNERS ARE "ENGAGED"

    a) Focus on problems of learners

    b) Learners are actively involved

4. LEARNER COMPETENCIES

    a) Awareness of learning processes

    b) Reflection on personal meaning

    c) Enhancement of learning skills and strategies

category are considered to be the most necessary and essential conditions of self-directed learning. That is, if these conditions are not met at least to some degree, the experience can not be labelled as a self-directed one. The conditions described by the indicators in the other three categories are considered as facilitative of self-directed learning. If they are not met, self-directed learning in a given situation is a much more difficult process. It is unlikely, but not impossible, that it will occur. It should be noted that not all learners within a self-directed learning environment will necessarily be self-directed learners. This model was used to guide the development of instruments used in the study.

For the purposes of data analysis, each of the indicators was put on a continuum (see Figure 2). At one end of each continuum were conditions that described an absence or a negation of the indicator. At the other end were conditions that described full presence of the indicator. The midpoint described partial presence of the indicator.

Instrumentation

Orientation Survey

A screening instrument was required that could be administered to the entire sample of full-time faculty at the university in order to find a subsample of faculty who

Figure 2. Indicators for Self-directed Learning

STRUCTURE:

I---I
Predetermined   Flexible,
                                                      Emergent
                          PLAN

I---I
No choice   Full choice

                          OPTIONS
Participation:
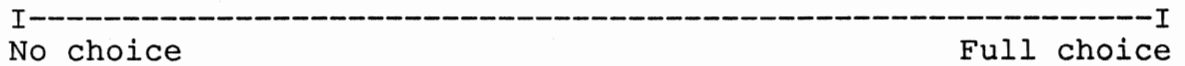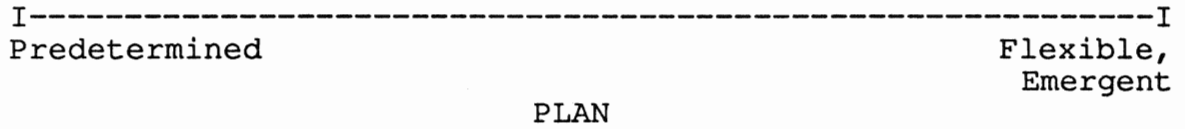
Objectives:

Content:

Methods:

Pace:

Materials:

Evaluation:

Other:

                                          (Figure continues)

Figure 2.

CLIMATE:

```
I------------------------------------------------------------I
Hinder                                                 Support
Reject                                                  Accept
Ridicule                    ATTITUDES                    Affirm
```

```
I------------------------------------------------------------I
Compete                                            Collaborate
Isolate                                              Cooperate
Separate                   RELATIONSHIPS               Include
```

Figure 2.

LEARNER ENGAGEMENT:

```
I--------------------------------------------------------------I
Subject-centered                                Problem-centered
Teacher-centered                                Learner-centered
                          FOCUS
```

```
I--------------------------------------------------------------I
Passive receptors                                  Active agents
Reactors                                               Initiators
Onlookers                 INVOLVEMENT               Participators
```
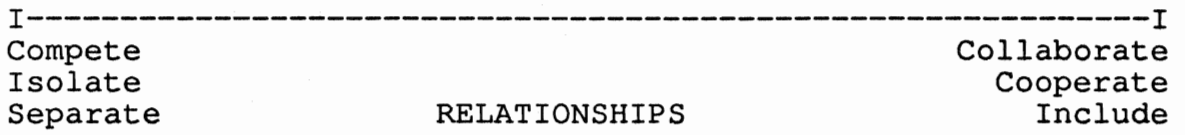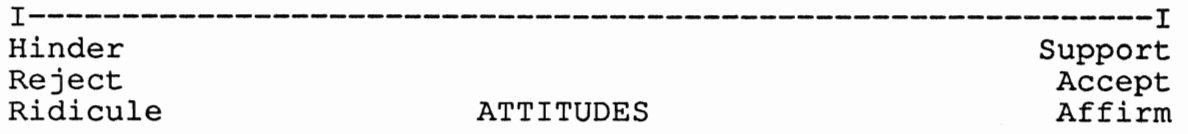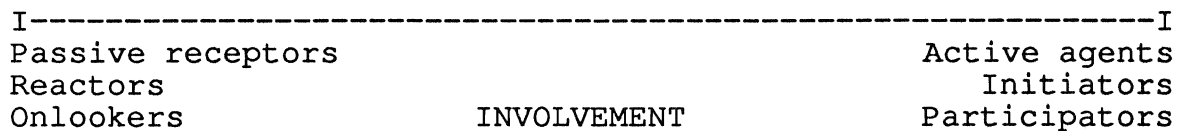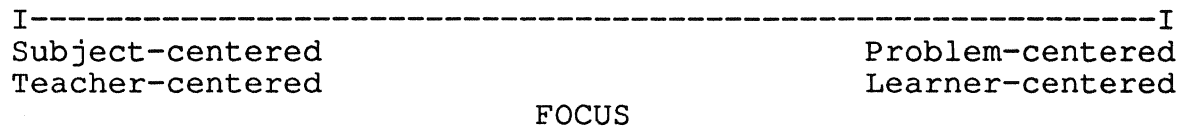
(Figure continues)

Figure 2.

LEARNER COMPETENCIES:

I--I
Ignorance   Awareness

                TEACHING/LEARNING PROCESS

I--I
Ignore/Devalue   Reflect on

            PERSONAL MEANING IN KNOWLEDGE

I--I
Avoid?/Expect?   Augment/Enhance

                SKILLS AND STRATEGIES

Thinking:

Problem-solving:

Planning:

Managing:

Other:

were committed to student participation in program planning.
No standard instrument has been reported in the literature
which focuses on instructional attitudes rather than
specific practices and which is designed to differentiate
between an instructor who supports self-directed learning
and one who does not. The Principles of Adult Learning
Scale (PALS) (Conti, 1983) was considered unsuitable because
it is designed as a self-report on instructional behavior.
For this study, an instrument that primarily measured
instructional orientation was needed. Practice was to be
reported on in a second survey, and orientation was then to
be compared with practice. Also, PALS did not have enough
emphasis on the planning function as was required for the
purposes of this study. Therefore, the first step in the
methodology was to design such an instrument for this study.

Development. A Likert-type scale was constructed to
elicit instructor opinions and attitudes about students, the
teaching/learning process, and the role of the instructor.
Sixty-seven statements were written describing possible
opinions and attitudes. Respondents were to indicate the
extent to which they agreed or disagreed with each
statement, using a 5-point scale. The research model of
self-directed learning guided the content of these
statements. For each of the nine indicators in the four
categories of the model, between five and eight favourable
statements were developed. These statements, if agreed

with, indicated instructor support for self-directed
learning. In addition, 16 unfavourable statements were
developed. These statements, if agreed with, indicated a
lack of instructor support for self-directed learning.

Pilot-testing. The test version of the survey was
administered to a sample of 33 university or community
college instructors or graduate students in education who
were also employed as educators of adults. Correlations
between all items were analyzed and only those items that
correlated with other items in the same category were
retained. In this way, statements that were too ambiguous
or that were not of the same type as other statements in
each category were eliminated. Also eliminated were any
statements for which the variance was very low, since the
primary purpose of the instrument was to select a subsample
of instructors who differed in their responses from the
total sample. The 5-point scale was changed to a 6-point
scale. The midpoint, neither agree or disagree, was
eliminated in order to discourage "fence-sitting" - again,
to simplify sample selection.

Administration to study sample. After revision the
Orientation Survey consisted of 37 statements. (Two of the
statements were actually identical items, simply worded
slightly differently, as the researcher was uncertain of the
most appropriate wording. After correlations were reviewed,

one of the statements was eliminated, leaving 36 actual items analyzed and reported on in this study.) Eleven statements were related to the Structure category of the research model, which was, as previously mentioned, the most essential category of the model. Fifteen statements were related to the other three non-essential categories of Climate, Learner Engagement, and Learner Competency. The remaining 10 items were unfavourable statements which indicated a lack of support for self-directed learning. (see Appendix B)

The revised version of the Orientation Survey was completed by 139 full-time university faculty. Correlations within each cluster of statements for the indicator categories of the research model were analyzed as they were in the pilot-test procedure (correlation tables are included in Appendix C). Reliability analysis of the clusters is presented in Table 1. The coefficients of reliability were especially good for the Structure category (.90) and the Not Self-directed category (.81) and acceptable for all other categories.

Practice Survey

A second survey instrument was required to elicit information about instructional practice, specifically instructional planning practice. It was to be administered to the study group of instructors who were selected on the

Table 1

Orientation Survey: Reliability Analysis of Clusters

Indicator Category	Survey Item Nos.	Alpha Coefficient	
Self-Directed Learning Indicator Clusters			
Structure	2,3,10,16,18,22, 29,31,34,35,37	.90	
Climate	1,4,9,25,27	.73	.79
Learner Engagement	6,11,13,19	.56	
Learner Competencies	7,8,21,23,33,36	.62	
Not Self-Directed Learning Indicator Cluster			
All Other	5,12,15,17,20,24, 26,28,30,32	.81	

basis of their responses to the Orientation Survey, which indicated support for student participation in planning.

A series of statements were written describing alternative forms of practice for each stage in the usual process of instructional design: assessing learner characteristics, defining course content, setting learning objectives, structuring and sequencing the learning activities, selecting instructional methods, planning the evaluation of learning, and planning the evaluation of instruction. The 79 statements indicated varying degrees of student participation in the planning process. Respondents were asked to indicate with a check mark any statement that described their usual approach to instructional planning. As it was recognized that practice might vary, depending on course level, class size, or other variables, respondents were advised to keep in mind their preferred teaching situation as they completed the survey. In addition, plenty of space was allowed for comments, so that respondents could describe their usual practice if it was not reflected in any of the provided statements. (see Appendix D)

Selection of Subjects

Figure 3 describes the selection of subjects for the study. The study population consisted of all full-time faculty in all academic programs and departments at an Ontario university. A research protocol was submitted to

Figure 3. Selection of sample.

305

Full-time Faculty

139   Orientation Survey

121   18

No Self-directed   Yes Self-directed

3   14 Practice Survey

Interview

6   9   11

Observation   Materials   Interview
               Analysis

the university's ethics committee prior to distribution of the study surveys and was approved (Appendix A).

The initial Orientation Survey was distributed with a covering letter to all full-time faculty (305 persons) through the inter-departmental mail system in March 1990. One-hundred and forty-six surveys were returned, of which 139 contained usable data, while seven were returned with comments but insufficient responses to allow them to be included for analysis. This was a 46 (48) % response rate.

A group of 18 instructors was selected as the focus for further study on the basis of their responses to the Orientation Survey. To select the study sample, responses to items in the Structure category were compared to responses to the Not Self-directed items. The average scores for the 11 Structure items and the average scores for the Not Self-directed items were calculated for each respondent. Respondents were selected for further study if the difference between the average scores for each category was at least .5, with the higher average score being in the Structure category. The average scores for each of the 18 members of the Study group subsample selected in this manner are presented in Table 2.

Table 3 presents descriptive information about the sample, including number of years teaching experience,

Table 2

Study Group Responses to the Orientation Survey:

Average Scores of Structure Items Compared to Average Scores

of Not Self-directed Items

Respondent	Structure*	Not Self-directed*
1.	4.0	3.5
2.	4.4	3.9
3.	4.4	3.9
4.	4.6	4.1
5.	3.7	3.1
6.	4.0	3.3
7.	4.5	3.8
8.	4.5	3.4
9.	4.6	3.5
10.	4.6	3.4
11.	4.7	3.5
12.	4.5	3.2
13.	5.1	3.7
14.	5.1	3.3
15.	4.7	3.7
16.	5.3	2.9
17.	4.7	3.7
18.	3.7	2.6

*Scored on a scale of 1 to 6.

Table 3

Orientation Survey: Description of the Sample

Characteristic	All Univ. Faculty n = 305	Total Respondents n = 139	Study Group n = 18
Years teaching			
1 - 5		20	17
6 - 10		19	22
11 - 20		36	34
21 -		24	28
Level			
undergraduate		92	87
graduate		8	13
Faculty			
Business	11	9	0
Education	10	13	27
Humanities	27	23	24
Math & Sciences	21	20	6
Phys.Ed. & Recreation	6	10	21
Social Sciences	25	25	22

* All data recorded in percentages.

course level taught, and academic faculty. The mean number of years teaching experience was 15 for both the total sample who completed the Orientation Survey, and the smaller study group who supported self-directed learning. The overwhelming majority of instructors in both groups taught primarily at the undergraduate level. As Table 2 indicates, faculty makeup of the total sample who responded to the survey corresponded closely with faculty representation of the university as a whole. However, the study group had a larger proportion of instructors from the Faculty of Education and the School of Physical Education and Recreational Studies, and a smaller proportion of instructors from the Faculties of Mathematics and Sciences and of Business than did the university as a whole.

The 18 instructors selected for further study were contacted by phone and asked to complete a second survey, the Practice Survey. Fourteen of the 18 agreed to complete this survey. The four instructors who did not complete the survey were not included in any further procedures, as the data collected from the Practice Survey were to form the foundation for a description of instructional practice.

Because it was necessary to contact respondents to the two surveys for subsequent phases of the study, responses had to be identifiable. To maintain confidentiality, the survey forms were coded (respondents were advised of this).

The master list of faculty names and codes was accessible only to the researcher, was filed separately from the survey responses, and was disposed of by the researcher after all data were collected and analyzed.

In late March, the researcher began to contact, in person, the 14 respondents to the Practice Survey to request permission to observe them in the classroom. Full details about the research project were provided to these instructors at this time, including the purpose of research and the research questions. A copy of the research proposal was provided for any instructor who requested it. Six of the first seven instructors who were contacted agreed to observation. No attempt was made to contact the remaining seven respondents and request their permission for observation since first, it was very close to the end of the term, and second, these six observations provided sufficient data for analysis.

In mid-April, the 14 respondents were contacted one more time, by mail, to request copies of their course materials. Nine of the instructors subsequently submitted a collection of course materials for analysis.

At one time or another during the data collection period, 11 of the 14 respondents to the Practice Survey expressed an interest in discussing their approach to

teaching, and brief interviews were conducted.

Finally, out of the 121 respondents to the Orientation Survey who had been identified as not supportive of self-directed learning, a convenience sample of three was selected by the researcher for a brief interview. All three agreed to be interviewed. Full details about the research project were provided to these instructors prior to the interview.

Procedures

Observation

Each instructor observation consisted of a single period of time ranging from a minimum of one hour to a maximum of two hours. The instructor chose the class that was to be observed. The researcher kept extensive descriptive written notes during the observation process. While the researcher kept in mind the research model of self-directed learning, no attempt at editing was made during the observation process. The researcher tried to report in as much detail as possible the events that took place in each classroom, with an emphasis on interactions among all students and the instructor.

Materials Collection

All respondents to the Practice Survey were asked in writing to submit for analysis copies of written materials

relevant to course planning procedures. It was suggested
that they include such things as course outlines,
objectives, evaluation procedures, handouts, exercises, etc.
Follow-up phone calls were made two weeks later to all who
had not yet submitted materials. Nine instructors
eventually submitted, in person or through the university's
interdepartmental mail service, materials for at least one
course and for a maximum of four courses. No instructor
indicated that the reason for failure to submit materials
was that written course materials were not used. All
submitted materials were included with the exception of
forms used for student evaluation of courses.

Interview

Self-directed study group. It was not the original
intent of the researcher to interview any of the instructors
who had been identified as supportive of self-directed
learning. However, when respondents started to talk
informally about their reaction to the Orientation and
Practice Surveys and their approach to teaching, the
researcher sensed that they had important things to say, and
written notes were kept. Very few attempts were made by the
researcher to guide the course of the discussion. The
interview was more of a process of listening and recording,
with questions posed primarily to clarify instructor
statements. Interview length was, on average, about 15
minutes, with some as short as five minutes, and two lasting

about 3/4 of an hour.

Not Self-directed. The researcher contacted three of the 121 instructors who had been identified as not supportive of self-directed learning to request a brief interview. Two of these instructors were selected because they were known to the researcher as instructors who were keenly interested in university teaching practice. One of these two had made extensive thoughtful comments on the Orientation Survey. The third instructor was randomly selected from the large number of instructors from the Faculty of Maths and Sciences whose responses to the Orientation Survey indicated that they felt the self-directed approach was inappropriate for their subject area. All three agreed to the interview. A somewhat structured, but open-ended interview format was followed, with the researcher posing three key questions: Is it in fact true that you do not believe that the self-directed approach is a valuable one? Why not? What is a better approach? Interview length was between 30 and 45 minutes.

Data Analysis

A descriptive statistical model was followed, in keeping with the descriptive research design.

Orientation and Practice Surveys

The data were analyzed using: (a) frequency responses

to each item, (b) means and standard deviations for each item, and (c) Pearson correlation coefficients between orientation items and practice items. All data were analyzed using the Statistical Package for the Social Sciences (SPSS X). Items in both surveys were classified according to the four categories of the research model: Structure, Climate, Learner Engagement, and Learner Competencies, to facilitate analysis. Results were organized in tables and will be presented in Chapter Four.

The pilot test and the final version of the Orientation Survey were analyzed for internal consistency and reliability using (a) frequency of responses, (b) Pearson correlation coefficients, and (c) Alpha coefficients of reliability.

Classroom Observation

The typed observation notes were cut into separate, single incident, observation records. Records from all six observations were compiled and then classified according to the four main categories of the research model: Structure, Climate, Learner Engagement, and Learner Competencies. The frequency of observations within each category was calculated. Within each category, the observation records were further divided according to each specific indicator. Finally, each observation was placed on the 3-point continuum that ranges from (-) Instructor behavior that is

not indicative of self-directed learning, through (0)
Behavior that is partially indicative of self-directed
learning, to (+) Instructor behavior that is strongly
indicative of self-directed learning. The frequency of
behavior at each point of the continuum was calculated for
each indicator. Results were organized into tables and are
presented in Chapter Four.

Course Materials

The general and specific conditions described in each
of the submitted documents were noted and then categorized
according to each of the indicators for self-directed
learning as presented in the research model. Each condition
was the placed on the 3-point continuum that ranges from (-)
A condition that is not indicative of self-directed
learning, through (0) A condition that is partially
indicative, to (+) A condition that is strongly indicative
of self-directed learning. The frequency of conditions at
each point of the continuum was calculated for each
indicator. Results were organized into a table and are
presented in Chapter Four.

Interview

Written records of the interviews were analyzed to
identify specific key points as well as similarities and
underlying themes. This information is presented in Chapter
Four. Full interview notes are in Appendices E and F.

Assumptions

The researcher made the following assumptions in establishing the research methodology:

1. Self-directed learning is a worthwhile approach to education for adult students. A related assumption is that undergraduate and graduate students are adults.

2. In a classroom (group) setting, students can only fully direct their own learning if instructor support is provided through certain specific classroom processes and structures.

3. An essential component of student-directed learning is student participation in the course planning process.

4. It is necessary to check both instructor beliefs and instructor practice in order to determine the full extent of instructor support for self-directed learning.

5. The three research methods (survey, materials analysis, and observation) when used in combination are an appropriate means of establishing an accurate description of instructional practice.

6. The Orientation Survey is an appropriate instrument for measuring instructor attitudes and beliefs, and selecting a sample of instructors who agree there is value in the self-directed approach to learning.

Limitations

The research design limitations of this study are as follows:

1. Generalizability is limited since the sample was not randomly selected. It cannot be assumed that the instructors in this study are representative of all university instructors. Results do provide information on a specific university setting, which could be transferable to a similar population in a comparable setting.

2. Instructors normally vary specific aspects of their practice depending upon a wide variety of situational variables, such as class size, subject area, length of course or of class session, level of students, etc. This fact may have confounded the process of responding to the two surveys, particularly the Orientation Survey. Some respondents seemed particularly upset by the general nature of the statements, since it is nearly always necessary to adapt a teaching approach to the specific situation at hand. However, the purpose of the survey was to elicit information about the instructor's overall approach to teaching such as opinions about the role of the student and that of the instructor, and broad expectations concerning the process of teaching and learning. General statements that reflected general attitudes with which an instructor could either agree or disagree were, therefore, required.

3. Correlations between responses to the Orientation Survey and responses to the Practice Survey must be viewed with caution. With such a small sample size ($\underline{n}$ = 14), correlations are likely to be unstable.

4. All those who responded to the Orientation Survey were,

in effect, volunteers and as such may represent a biased sample. However, while the overall level of stated instructor support for self-directed learning at the university was certainly of interest, the primary purpose of the study was to assess the nature of instructor support and the extent to which stated beliefs of support were put into practice.

5. The Orientation Survey did not have an established reliability. The pilot testing that was done, followed by statistical analysis and revision, could not completely offset this limitation.

6. It is possible that researcher bias may have affected the classroom observation, course materials analysis, and interview procedures. However, it was probably preferable to have a single person complete these procedures, a person who was familiar with the context of the research question and with all aspects of the research model, than to attempt the training of additional persons. In order to standardize these procedures as much as possible, and limit the effects of bias, the research model served as the reference point for all data analysis and was referred to extensively.

CHAPTER FOUR

RESULTS

In this chapter the results of the study will be reported in
four sections. First, the results from the Orientation
Survey are presented, and are related to the research model.
In the second section all of the findings related to
instructional practice are reported in two parts: First,
the overall results of the Practice Survey are presented,
and then all of the instructional practice findings from
each of the three sources (Practice Survey, classroom
observation, and course materials analysis) are reviewed in
terms of the research model. Third, correlations between
responses to the Orientation Survey and responses to the
Practice Survey are presented. And fourth, the results from
the interviews are summarized.

Orientation Survey Results

The results of the orientation survey are presented in
Table 4: Means and Standard Deviations, and Table 5:
Frequency of Responses. To facilitate interpretation,
survey items were clustered according to the four major
indicators of the Self-directed learning research model:
Structure, Climate, Learner Engagement, and Learner
Competencies. A fifth category includes all items which
indicate an approach that is Not Self-directed. Results are
shown for the total sample, as well as the subsample (Study

Table 4

Orientation Survey: Means and Standard Deviations of
Responses

Item No.	Item	Group*	M	SD
		Structure		
2	Suggestions influence			
		Total	4.2	1.2
		Study	5.2	.7
		Not	4.1	1.1
16	Abandon plans			
		Total	3.0	1.3
		Study	4.3	1.0
		Not	2.8	1.1
34	Emerging structure			
		Total	2.7	1.4
		Study	4.0	1.2
		Not	2.5	1.3
31	Share planning			
		Total	3.5	1.2
		Study	4.8	.9
		Not	3.3	1.2
3	Choice in topics			
		Total	3.9	1.4
		Study	4.9	.8
		Not	3.7	1.4
10	Choice in activities			
		Total	3.7	1.1
		Study	4.6	.6

(table continues)

Table 4

		Not	3.5	1.1
18	Choose objectives			
		Total	3.2	1.1
		Study	4.1	.8
		Not	3.1	1.0
22	Students in control			
		Total	3.5	1.2
		Study	4.4	.9
		Not	3.4	1.2
29	Students set pace			
		Total	3.3	1.1
		Study	4.4	.7
		Not	3.2	1.1
35	Students set evaluation criteria			
		Total	2.7	1.2
		Study	3.8	1.0
		Not	2.5	1.1
37	Consultation re content			
		Total	3.1	1.3
		Study	4.9	.9
		Not	2.9	1.1

Climate

1	Regard for student abilities			
		Total	4.9	1.0
		Study	5.3	.6
		Not	4.8	1.0
9	Appreciate student efforts			
		Total	5.1	.8

(table continues)

Table 4

		Study	5.2	1.0
		Not	5.1	.8
27	Attention to meaning			
		Total	4.5	1.0
		Study	4.8	1.2
		Not	4.5	1.0
4	Learn from students			
		Total	5.1	.9
		Study	5.6	.7
		Not	5.0	.9
25	Students are resources			
		Total	5.3	.8
		Study	5.8	.4
		Not	5.3	.8

Learner Engagement

11	Immediate concerns a priority			
		Total	3.9	1.2
		Study	4.2	.9
		Not	3.9	1.2
19	Resolve student problems			
		Total	3.8	1.2
		Study	5.6	.6
		Not	3.7	1.2
6	Students involved in class			
		Total	5.2	.9
		Study	5.6	.6
		Not	5.2	1.0

(table continues)

Table 4

13	Participation enhances learning			
		Total	5.6	.7
		Study	5.9	.3
		Not	5.5	.7

Learner Competencies

33	Understand learning style			
		Total	4.6	.9
		Study	5.2	.9
		Not	4.6	.9
8	Personal learning strategies			
		Total	4.5	1.2
		Study	5.1	.7
		Not	4.4	1.2
23	Opportunities to reflect			
		Total	5.1	.8
		Study	5.2	.8
		Not	5.1	.8
7	Independent thinking			
		Total	5.7	.5
		Study	5.8	.4
		Not	5.7	.5
21	Challenge assumptions			
		Total	5.2	.9
		Study	5.2	.8
		Not	5.2	.9
36	Problem-solving skills			
		Total	4.4	1.3
		Study	4.9	1.0
		Not	4.3	1.3

(table continues)

Table 4

Not Self-directed

15	Structure around subject			
		Total	5.0	1.0
		Study	3.9	1.4
		Not	5.2	.8
32	Stay with outline			
		Total	2.9	1.3
		Study	2.1	1.3
		Not	3.0	1.2
20	Instructor sets content			
		Total	4.9	.8
		Study	3.8	.7
		Not	5.1	.7
30	Instructor maintains control			
		Total	4.0	1.1
		Study	3.1	1.1
		Not	4.1	1.0
17	Instructor set apart			
		Total	4.0	1.2
		Study	3.3	1.3
		Not	4.1	1.2
26	Instructor judges learning			
		Total	4.4	1.2
		Study	3.5	.7
		Not	4.5	1.1
24	Maintain standards			
		Total	5.2	.9
		Study	4.5	1.0
		Not	5.4	.8

(table continues)

Table 4

28	Advising what to learn			
		Total	4.6	1.0
		Study	4.1	1.0
		Not	4.7	1.0
12	Instructor sets direction			
		Total	4.7	.9
		Study	3.9	.9
		Not	4.8	.8
5	Role to deliver content			
		Total	3.2	1.3
		Study	2.6	.9
		Not	3.3	1.3

Note. Items have been clustered according to the research model.
*N = 139 in total sample; n = 18 in Study group; n = 121 in Not group.

Table 5

Orientation Survey: Frequency of Responses

Item No.	Item	Group*	SD	D	TD	TA	A	SA
						Response**		

Structure

2	Suggestions influence							
		Total	1	10	12	33	34	10
		Study	–	–	–	11	56	33
		Not	1	12	13	36	31	7
16	Abandon plans							
		Total	10	31	24	22	11	2
		Study	–	6	17	22	50	6
		Not	12	35	25	22	5	1
34	Emerging structure							
		Total	23	27	24	16	8	3
		Study	–	11	22	33	22	11
		Not	27	29	24	13	6	2
31	Share planning							
		Total	6	18	23	36	11	6
		Study	–	–	6	28	44	22
		Not	7	21	26	37	6	3
3	Choice in topics							
		Total	4	13	22	25	22	14
		Study	–	–	6	17	56	22
		Not	5	15	24	26	17	12
10	Choice in activities							
		Total	3	12	25	36	19	4

(table continues)

Table 5

		Study	–	–	6	29	65	–
		Not	4	14	29	37	11	5
18	Choose objectives							
		Total	5	21	36	27	11	1
		Study	–	–	28	39	33	–
		Not	5	25	37	25	7	1
22	Students in control							
		Total	5	14	30	30	15	6
		Study	–	–	18	41	29	12
		Not	6	17	32	29	12	5
29	Students set pace							
		Total	4	20	29	35	10	2
		Study	–	–	6	56	33	6
		Not	4	24	32	31	7	2
35	Students set eval. criteria							
		Total	17	29	32	14	7	2
		Study	6	–	28	39	28	–
		Not	19	33	33	10	3	2
37	Consultation re content							
		Total	10	24	30	22	7	7
		Study	–	–	6	28	33	33
		Not	11	28	35	20	3	3

Climate

1	Regard for student abilities							
		Total	–	3	6	19	45	27
		Study	–	–	–	6	61	33
		Not	–	4	7	21	43	25

(table continues)

Table 5

9	Appreciate student efforts							
		Total	–	1	2	18	43	37
		Study	–	6	–	6	50	39
		Not	–	–	2	20	42	36
27	Attention to meaning							
		Total	1	4	8	37	34	17
		Study	–	6	11	11	39	33
		Not	1	4	6	41	34	14
4	Learn from students							
		Total	–	1	4	15	44	35
		Study	–	–	–	11	22	67
		Not	–	2	5	16	48	29
25	Students are resources							
		Total	1	–	–	11	39	49
		Study	–	–	–	–	17	83
		Not	1	–	–	13	43	44

Learner Engagement

11	Immediate concerns priority							
		Total	2	9	22	34	25	8
		Study	–	6	11	44	33	6
		Not	3	10	24	33	23	7
19	Resolve student problems							
		Total	5	8	19	42	21	5
		Study	–	6	17	39	39	–
		Not	6	9	19	42	18	5
6	Students involved in class							
		Total	1	1	1	15	33	49
		Study	–	–	–	6	33	61

(table continues)

Table 5

			1	2	3	4	5	6
		Not	1	2	2	16	33	46
13	Participation enhances learning							
		Total	–	–	–	9	26	65
		Study	–	–	–	–	11	89
		Not	–	–	–	10	29	61

Learner Competencies

			1	2	3	4	5	6
33	Understand learning style							
		Total	–	1	9	34	39	17
		Study	–	–	6	17	33	44
		Not	–	1	9	37	40	13
8	Personal learning strategies							
		Total	2	4	10	35	29	20
		Study	–	–	–	17	56	28
		Not	3	4	11	38	24	20
23	Opportunities to reflect							
		Total	–	1	2	18	47	33
		Study	–	–	–	22	33	44
		Not	–	1	2	18	49	31
7	Independent thinking							
		Total	–	–	1	1	28	71
		Study	–	–	–	–	17	83
		Not	–	–	1	1	30	69
21	Challenge assumptions							
		Total	–	1	6	12	37	44
		Study	–	–	6	6	50	39
		Not	–	1	5	13	35	45
36	Problem-solving skills							
		Total	2	5	14	32	23	24

Table 5

Study	-	-	11	22	33	33
Not	3	6	14	33	21	23

Not Self-Directed

24 Maintain standards

Total	-	2	2	12	39	45
Study	-	6	6	33	44	11
Not	-	1	2	9	39	50

28 Advising what to learn

Total	-	5	6	32	42	16
Study	-	11	6	56	22	6
Not	-	4	5	28	45	18

12 Instructor sets direction

Total	-	2	5	33	43	17
Study	-	11	22	44	11	11
Not	-	1	2	31	48	18

 5 Role to deliver content

Total	7	30	18	33	7	6
Study	6	50	28	17	-	-
Not	8	26	17	35	8	7

17 Instructor set apart

Total	5	9	15	34	30	8
Study	6	22	33	22	11	6
Not	3	7	12	36	33	9

26 Instructor judges learning

Total	2	5	10	33	35	15
Study	-	6	44	44	6	-
Not	2	5	5	31	40	17

Table 5

15	Structure around subject						
		Total	1	2	5	12	49	31
		Study	6	11	17	33	17	17
		Not	–	1	3	8	55	33
32	Stay with outline						
		Total	13	25	33	18	7	4
		Study	39	28	28	–	–	6
		Not	9	25	35	21	8	3
20	Instructor sets content						
		Total	–	1	3	27	43	27
		Study	–	6	22	61	11	–
		Not	–	–	–	21	48	31
30	Instructor maintains control						
		Total	2	7	18	37	33.	2
		Study	6	22	39	22	11	–
		Not	2	5	15	39	37	3

Note.Items have been clustered according to the research model.
** All data recorded in percentages. SD: Strongly Disagree; D: Disagree; TD: Tend to Disagree; TA Tend to Agree; A: Agree; SA: Strongly Agree.
* n = 139 in total sample; n = 18 in Study group; n = 121 in Not group.

group) who were selected for further study as instructors oriented towards a self-directed learning approach, and the subsample (Not Self-directed group) who did not support the self-directed learning approach (comments in Appendix G).

Total Sample

The mean responses were less than 4.0 for 10 out of the 11 Structure items. The means were 4.0 or greater for 8 out of the 10 Non Self-directed items. The means were greater than 4.0 for all of the Climate and Learner Competencies items. The means of the Learner Engagement items ranged from 3.8 to 5.6; the means of the items related to the value of student participation were greater than 5.0 while the means of the items related to the value of focusing on student concerns were less than 4.0 (see Table 4).

For the total sample group, the lowest mean response was 2.7, for "I prefer to let the course structure emerge as the course progresses," and "I want my students to set the criteria for their evaluation." The highest mean responses were 5.7 for "I try to foster independent thinking in my students," and 5.6 for "Learning is enhanced when my students actively participate in the learning process" (see Table 4).

The frequency results presented in Table 5 provide some interesting insights about the respondents' orientation to

teaching and the perceived realities of the university

setting. Eighty percent of the total sample agreed or

strongly agreed that they structure learning around subject

matter, but only 11% agreed or strongly agreed that learning

suffers when they depart from the course outline. While 70%

agreed or strongly agreed that it is the instructor's

responsibility to determine course content, only 13% agreed

that their primary role is to deliver content. Ninety-nine

percent agreed or strongly agreed that they try to foster

independent thinking, 81% agreed or strongly agreed that

they like to challenge student assumptions, and 80% agreed

or strongly agreed that they try to provide opportunities

for students to reflect upon learning. Eighty-eight percent

agreed or strongly agreed that students can be important

resources for one another, and 82% agreed or strongly agreed

that they want students to be involved in all class

sessions. Eighty-four percent agreed or strongly agreed

that it is important to maintain standards in evaluating

students. Thirty-five percent agreed or strongly agreed

that they try to maintain control of the learning situation

as much as possible, compared to 21% who agreed or strongly

agreed that students should be in control (see Table 5).

The Study Group in Comparison with the Not Self-directed Group

Thirteen percent (18 of the 139 total) of respondents

to the Orientation Survey were identified as instructors

oriented towards a self-directed learning approach, while the remaining 87% of respondents did not appear to support self-directed learning.

The mean responses for the Structure items ranged from 3.8 to 5.2 for the Study group, compared to a range of 2.5 to 4.1 for the Not Self-directed group. The mean responses for the Climate items ranged from 4.8 to 5.8 for the Study group, compared to a range of 4.5 to 5.3 for the Not Self-directed group. The mean responses for the Learner Engagement items ranged from 4.2 to 5.9 for the Study group, compared to a range of 3.7 to 5.5 for the Not Self-directed group. The mean responses for the Learner Competencies items ranged from 4.8 to 5.8 for the Study group, compared to a range of 4.3 to 5.7 for the Not Self-directed group. The mean responses for the Non Self-directed items ranged from 2.1 to 4.5 for the Study group, compared to a range of 3.0 to 5.4 for the Not Self-directed group (see Table 4).

The mean responses for the Study group were lower than the mean responses of the Not Self-directed group for all Not Self-directed items. The mean responses of the Study group were higher than the mean responses of the Not Self-directed group for all of the Self-directed learning indicator items except Item 21: "I like to challenge students' assumptions," for which the mean for both groups was the same (see Table 4).

The frequency of responses to individual survey items, as presented in Table 5, further emphasizes the differences in instructional orientation between the Study group and the Not Self-directed group. The most notable differences are found within the Structure category. Sixty-seven percent of the Study group, in comparison with 6% of the Not Self-directed group, agreed or strongly agreed that course content is best determined in consultation with students. Sixty-six percent of the Study group, in comparison with 9% of the Not Self-directed group, agreed or strongly agreed that they like to share the course planning process with students. Finally, 89% of the Study group, in comparison with 38% of the Not Self-directed group, agreed or strongly agreed that they allow the course structure to be influenced by student suggestions.

Differences are less noticeable within the cluster of Climate items and are related to the degree of agreement. Sixty-seven percent of the Study group strongly agreed that they learn from their students, in comparison with 29% of the Not Self-directed group. Similarly, in the Learner Engagement category, 89% of the Study group strongly agreed that learning is enhanced when students actively participate, in comparison with 61% of the Not Self-directed group.

In the Learner Competencies category 77% of the Study

group agreed or strongly agreed that students need to understand their personal learning style, in comparison with 53% of the Not Self-directed group. And 84% agreed or strongly agreed that they help students develop personal strategies for learning, in comparison with 44% of the Not Self-directed group (see Table 5).

Looking at responses in the Not Self-directed category, Table 5 indicates that only 6% of the Study group agreed that the instructor is in the best position to judge student efforts, in comparison with the 57% agreement or strong agreement of the Not Self-directed group. Fifty-five percent of the Study group agreed or strongly agreed that it is important to maintain standards in evaluation, in comparison with 89% of the Not Self-directed group. Finally, only 11% of the Study group agreed that it is the instructor's responsibility to determine course content, in comparison with 79% of the Not Self-directed group.

Practice Results

As previously indicated, 18 of the 139 respondents to the Orientation Survey were identified as instructors oriented towards a self-directed learning approach. Fourteen of these 18 agreed to complete a second survey designed to elicit information about instructional practice. Six of the 14 were observed in the classroom, and nine provided materials for analysis. Results from all of these sources

are presented in this section.

Practice Survey: Summary of Practices

Results from the Practice Survey are presented in Table 6. The comments of respondents are in Appendix H. The characteristic practices of instructors within each stage of the instructional design model, as reported by the respondents, can be summarized as follows:

Assessing learner characteristics. More than 3/4 of the respondents assess what students want/need to know, the prior relevant experiences and the course expectations of students. The majority of respondents (64%) adjust the course to suit the characteristics of students.

Course content. The majority of respondents either define content themselves, based on their knowledge of student needs, or define content through a process of student-instructor negotiation. Students very frequently are expected to adapt content to meet their needs by choosing assignment topics and seminar or laboratory topics. They less frequently adapt content to meet their needs by choosing their own reading materials.

Objectives. Seventy-one percent of the respondents set course objectives before the first class session. Most ask that students suggest changes, additions, or deletions to

Table 6

Practice Survey: Frequency of Responses (n = 14)

Item	Response*	
	No	Yes

Learner Characteristics

Instructor assesses/considers:

Item	No	Yes
1.what students need to know	14	86
2.prior student experiences	21	79
3.expectations	21	79
5.entrance abilities	36	64
8.student need for guidance vs. autonomy	36	64
6.personality characteristics	43	57
4.learning style	64	36
7.previous academic records	93	7
9.other student characteristics (specific student interests)	71	29
10.students consider personal characteristics	93	7
11.adjust course to suit characteristics	36	64

Course Content

Item	No	Yes
13.I define content based on student needs	43	57
12.content prescribed by department/program	54	46
17.content defined through negotiation	43	57

(table continues)

Table 6

15. students choose assignment topics	0	100
14. students choose seminar/laboratory topics	21	79
16. students choose reading materials	43	57

Objectives

19. I set objectives before first class	29	71
20. I set objectives after meeting with class	64	36
25. the class sets course objectives	86	14
21. I explain set objectives to class	43	57
22. I hand out set objectives, then request input	43	57
23. I request input, then distribute objectives	86	14
18. course objectives not explicitly stated	93	7
24. course objectives not shared with students	100	0
26. each student sets personal objectives	36	64
27. students modify objectives to meet needs	50	50
28. students set extra objectives to meet needs	57	43
29. if objectives do not meet needs, drop course	57	43

Structure/Sequence

32. students advised to see me with concerns	21	79

(table continues)

Table 6

30.address student concerns at start of sessions	43	57
31.address student concerns at end of sessions	79	21
33.I set assignment due dates	14	86
34.students set assignment due dates	71	29
36.sequence evolves from changing student needs	31	69
35.sequence determined by course content	57	43
37.students set topic priorities; I sequence them	64	36
38.students to modify plans as course progresses	50	50
39.students to follow through with initial plans	86	14

I finalize plans:

40.by 1st/2nd session	57	43
41.by course midpoint	71	29
42.each week	71	29

Instructional Methods

I normally use these methods of instruction:

45.inviting questions	0	100
43.lecture	7	93
46.class discussion	7	93
47.discussion groups	7	93
54.presentations by students	7	93

Table 6

44. questioning	14	86
51. independent student projects	14	86
48. group exercises/projects	29	71
53. peer teaching	29	71
49. demonstration	36	64
61. journal writing	57	43
55. role playing	57	43
56. simulations/games	57	43
50. laboratory experiences	64	36
52. learning partners	64	36
58. computerized instruction	79	21
57. drill and practice	93	7
60. modularized instruction	93	7
59. programmed instruction	100	0
62. other methods (interviews, presentations by students to instructor only, fill-in-the-blank lecture worksheets, debates, guest lectures, case studies, videotape analysis of student performance, video and slide presentations, interactive lectures)	79	21
63. students select some instructional methods	57	43

Evaluating Learning

65. students assign weights	50	50
64. students evaluate some of their own work	57	43
71. students decide who evaluates activities	100	0

Table 6

66.students suggest evaluation activities	71	29
67.students select evaluation activities from list	93	7
68.evaluation activities done in pairs/groups	57	43
69.group may negotiate grading scheme**	79	21
70.all in group receive same grade**	93	7

Grades assigned on basis of:

74.attainment of set objectives	43	57
73.demonstrated improvement	50	50
72.relative value	71	29
75.contracts	71	29

Evaluating Instruction

77.students evaluate course when over	7	93
76.students evaluate course while in progress	36	64
79.I change course based on evaluation results	14	86
78.course evaluations discussed in class	65	35

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* All data recorded in percentages.
** Yes responses out of a total of 43%, rather than 100%.

these objectives. Only 14% report that course objectives
are set by the class. The majority of respondents suggest
that students set personal learning objectives.

Sequence/structure. More than 3/4 of the respondents
advise students to see them personally with course related
concerns. Over one-half address student concerns at the
beginning of each class session. Due dates for assignments
are most frequently set by the instructor rather than the
students. Fifty percent expect/allow students to modify
their learning plans as the course progresses. And while
respondents most frequently finalize their course plans by
the first or second session, more than a quarter of
respondents only finalize plans each week.

Instructional methods. It appears that respondents
normally use a wide variety of instructional methods. As
would be expected in this setting, every respondent
indicated that they invite questions from students, and over
85% make use of lecture, questioning, class and group
discussions, presentations by students, and independent
student projects. In addition, peer teaching, journal
writing, role-playing, simulations and games, and learning
partners are used by a substantial number of respondents.
The only option not selected from the survey list was
programmed instruction, while 21% of the study group added
items to the list of methods normally used, including

interviews, case studies, debates, and videotape analysis of student performances. Students of 43% of respondents select some of the instructional methods.

Evaluating learning. None of the respondents reported that students decide who is to evaluate their learning activities. Fifty percent reported that students evaluate some of their own work. Less than a third indicated that students suggest or design their own evaluation activities in their courses. Respondents most frequently assign grades on the basis of attainment of set objectives, but 29% assign grades on the basis of relative value within the class.

Evaluating instruction. Nearly all respondents ask students to evaluate courses when they are over, and 86% make changes in the course based on these evaluations. A smaller number reported that students evaluate the course while in progress and a minority indicated that course evaluations are discussed in class.

Instructional Practice: Reported Practice, Observation, Course Materials

As already noted, instructional practices of the Study group were assessed by classroom observation and course materials analysis, as well as by the Practice Survey. The purpose of the following subsection is to report on and compare the results of each of these sources in light of the

research model. It begins with a description of how the results from each source were organized for analysis.

Practice survey. To facilitate interpretation of the survey results, and to ease comparison with results from the classroom observation and materials analysis, many (but not all) of the items in the Practice Survey were clustered according to the four main indicators of the research model of self-directed learning (see Table 7).

Classroom observation. Six of the 14 instructors who completed the Practice Survey agreed to be observed within the classroom situation. Each of these instructors was observed on a single occasion for a minimum one hour and maximum two hour period. Class size ranged from three to over 100 students, with the majority consisting of 25-35 students. All courses were at the undergraduate level. The observation notes yielded a total of 146 observation records, which were then classified according to the four indicator categories of the Self-directed learning research model: Structure, Climate, Learner Engagement, and Learner Competencies. Thirteen percent of the observations fell into the Structure category, 32% into Climate, 39% into Learner Engagement, and 11% into Learner Competencies. Five percent were classified as mixtures of all four categories. Within each of the four categories, the observation records were further divided according to each of the indicators

Table 7

Practice Survey: Key Items Related to Research Model

Item	% YES
Structure	
Plan	
Adjust course to suit student characteristics	64
Course evaluated while in progress	64
Change on basis of course evaluation	86
Options	
Content defined through negotiation	57
Course objectives set by students	14
Students set personal learning objectives	64
Students set assignment due dates	29
Sequence around student priorities	36
Students select instructional methods	43
Students weight evaluation activities	29
Students decide who is to evaluate	0
Grades assigned on basis of contracts	29
Climate	
Attitudes	
Assess students' need for guidance/autonomy	64
Course objectives not shared*	0
Instructor sees students personally re concerns	79
Students may modify plans	50
Methods: Inviting questions	100

(table continues)

Table 7

Relationships

Methods: Group exercises/projects	71
Learning partners	36
Peer teaching	71
Discussion groups	93
Evaluation activities in pairs/groups	43
Content defined through negotiation	57
Some grades set through negotiation	21
Grades assigned on basis of contract	29

Learner Engagement

Focus

Assess: What students want/need to know	86
Prior relevant experiences	79
Student expectations	79
Entrance abilities	64
Personality characteristics	57
Content prescribed*	46
Instructor sets objectives first*	71
Concerns addressed at start of session	57
Sequence evolves from changing needs	69
Grading on basis of relative value*	29

Involvement

Methods: Inviting questions	100
Questioning	86
Discussion	93

Table 7

Independent student projects	86
Presentations by students	93
Role play/simulations/games	43
Lab experiences	36
Drill and practice	7

Learner Competencies

Process

Assess: Learning style	36
Personality characteristics	57
Students consider personal characteristics	7
Objectives not explicitly stated*	7
Course evaluation discussed in class	35

Personal Meaning

Methods: Role playing/simulations/games	43
Journal writing	43
Students evaluate own activities	43

Skills and Strategies

Students set due dates	29
Methods: Questioning	86
Independent student projects	86
Demonstration	64
Students set personal learning objectives	64
Students set course objectives	14
Grades assigned on basis of contracts	29

*Negative item.

within that category. Finally, each observation was placed
on a 3-point continuum ranging from (-) Instructor behavior
that is not indicative of self-directed learning, to (+)
Instructor behavior that is strongly indicative of self-
directed learning. The midpoint (0) was reserved for those
behaviors that were partially indicative of self-directed
learning. The results from this process are presented in
Table 8, which shows the frequency of behaviors, and Table
9, which provides examples of observed behaviors within each
category.

Course materials analysis. Nine of the 14 instructors
who completed the Practice Survey submitted course materials
for analysis. Documents for a total of 21 courses were
examined. Course level ranged from first year introductory
to graduate level seminars. Several instructors submitted a
sampling of materials from different levels as evidence for
the effect of level upon their instructional approach.

Most of the materials were course outlines, with the
length ranging from one page to almost 40 pages. The longer
of these documents gave extensive details about assignments,
evaluation methods, general expectations for the course, as
well as study tips. All provided information about content
and objectives.

A smaller number of instructors submitted examples of

Table 8

Classroom Observation: Frequency of Behaviors

Indicator	n	Behavior*		
		−	0	+
Structure				
Plan (flexible, emergent)	2	0	0	100
Options (full choice)	18	39	11	50
Climate				
Attitudes (support, accept, affirm)	19	16	16	68
Relationships (cooperative)	28	18	18	64
Learner Engagement				
Focus (problem/learner-centered)	25	28	20	52
Involvement (participate, initiate)	33	15	18	67
Learner Competencies				
Teaching/Learning Process (awareness)	4	0	0	100
Personal Meaning (reflect on)	4	0	25	75
Skills and Strategies (enhance)	8	0	0	100

*All data recorded in percentages.

Table 9

Classroom Observation: Examples of Behaviors

Indicator	Point	Behavior Observed

Structure

Indicator	Point	Behavior Observed
Plan	(+)	*At the last class session, the instructor gives the class a revised course outline, which summarizes what was actually covered in the course.
Options	(−)	*For the next hour, the instructor directs the class through a series of exercises. *Instructor: "Okay, guys, you can only talk so long, then you have to do."
	(+)	*The instructor has asked the class's permission for me to observe them. *Instructor: "Should we take a break?" Student presenter: "I just thought we'd cover...." So the class continues.

Climate

Indicator	Point	Behavior Observed
Attitudes	(−)	*Instructor to a student: "Are you doing what I asked you to do?" The instructor looks at the work, then comments: "I'd like it ten times more detailed than that."
	(+)	*A student shares with the class the fact that she never felt she would be attacked for a wrong answer in this course, and this has given her the confidence to participate and respond. *A student suggests an answer very tentatively. Instructor: "Be unsure with confidence. You're speaking very quietly." The student repeats her comments. Instructor: "You've got it!", and continues to involve the student in a discussion of the topic.

(table continues)

Table 9

Relationships	(-)	*The students (~30) sit in rows facing the instructor, who stands at the front of the class for the duration of the session. *It seems that the students talk more to the instructor (in a seminar) than to each other.
	(+)	*The instructor does not interfere, even when there is a brief period of chaos and disagreement over procedures. He stands at the back of the class so that he can properly see the faces of the students involved and says nothing. He smiles and appears quite confident that the students will resolve the problem. They do. *The instructor helps the two students to understand each other. He rewords some of their questions/answers/statements so that the meaning is clear and they are able to carry on their discussion.

Learner Engagement

Focus	(-)	*The instructor's comments to the class are frequently interspersed with "I strongly urge you to..." or "I recommend that you...". *Instructor to entire class: " Any questions?" It appears that the question is a rhetorical one, since very little time is allowed for responses before the instructor moves on to something else. *The instructor quickly processes a question about what will be on the exam. It seems he doesn't want students to "waste" time worrying about the exam.
	(+)	*Instructor to a student: "Frank, you had an idea about...", and gives the floor to the student. *The greatest part of the class time is devoted to answering student questions about course material in preparation for the exam. *The instructor summarizes students' comments without adding anything.

Table 9

Involvement	(-)	*This query brings a long, long response from the instructor. The instructor is now explaining the topic, rather than the presenter.
	(+)	*Within a couple of minutes, the instructor turns everything over to a student who is to lead the discussion tonight based on a course reading. *The entire class session is run as a debate. The instructor is seated at the back of the class, obviously attending to the presentations, without interfering in the process. All students are involved, either as debaters or as members of the audience who must decide upon which side wins. When it is time for the audience to ask questions the level of participation is high.

Learner Competencies

Process	(+)	*Students take turns sharing objectives they wrote at the beginning of the course and assessing whether or not they have been met. *The last part of the class is spent in informal evaluation of the course as a whole.
Personal Meaning	(+)	*Instructor: "Let's stop and think this through." He proceeds to give examples related to personal experiences of students. The students reflect out loud on what the real meaning of the author might be. *Instructor: "Please take a few moments to think through your own interpretation of this principle so that you can share it with the class."
Skills	(+)	*It seems the students are to identify and discuss the strategic elements in the paper ie. how the authors were able to build the experiment and the accompanying argument.

learning activities/exercises used in classes, all of which were included in the analysis. Course evaluation forms, submitted by some instructors, were not included.

The general and specific conditions described in the course materials were categorized according to the indicators for self-directed learning as presented in the research model. Each of the observed conditions, for each of the 21 documents, was placed on a 3-point continuum ranging from (-) A condition that is not indicative of self-directed learning, to (+) A condition that is strongly indicative of self-directed learning. The midpoint (0) was reserved for conditions that were partially indicative of self-directed learning. Table 10 presents the frequencies of the conditions for each of the indicators.

A brief review of the instructional practice findings in relation to Structure, Climate, Learner Engagement, and Learner Competencies will now be presented for each source of information: the Practice Survey, classroom observation, and course materials analysis.

<u>Structure</u>.

1. Practice Survey. Table 7 includes 12 items from the Practice Survey that are indicative of course structure. Please note that all of the items in the survey are connected to the process of course design, and as such will

Table 10

Course Materials Analysis: Frequency of Conditions ($\underline{n}$ = 21)

Indicator	Condition*			
	−	0	+	NC**
Structure				
Plan	48	48	5	
Options				
Content				
Lectures	86	14	0	
Seminars/Labs	57	43	0	
Assignments	14	43	43	
Methods				
Class	81	19	0	
Assignment	48	28	24	
Pace	28	48	5	5
Materials	29	71	0	
Evaluation	86	14	0	
Objectives	86	14	0	
Climate				
Attitudes				
Re late work	52	0	48	
Other	0	0	38	62
Relationships				
Grading	81	19	0	
Activities/methods	57	0	43	
Other instructor − student	0	0	14	86
Other student − student	0	0	38	62

(table continues)

Table 10

Learner Engagement

Focus				
Overall	14	0	86	
Other specific	0	0	33	67

Involvement				
Course overall				
Instructional methods	0	100	0	
Seminars/labs				
Leadership of	48	48	5	
Instructional methods	0	0	52	48

Learner Competencies

Teaching/Learning Process				
Rationale for approach	19	81	0	
Other	0	0	19	81
Personal Meaning	0	0	33	67
Skills and Strategies				
Thinking/Problem-solving	43	0	57	
Planning/Managing	0	24	9	67
Group	0	0	28	72
Other	0	0	14	86

* All data recorded in percentages.
** No evidence of this condition could be seen in course materials.

influence the course structure. The Structure items presented in Table 7 were selected because they are most indicative of a self-directed approach to teaching and learning, in which students would be actively involved in most aspects of the course planning process.

Responses indicate that most instructors in the study group try to be responsive to students and are somewhat flexible in their course plans. Sixty-four percent reported that courses are adjusted to suit student characteristics and that students evaluate courses while in progress. Eighty-six percent make changes on the basis of the evaluations. However, instructors far less frequently allow or expect students to make choices at each phase of the planning process. For example, none of the respondents reported that students decide who is to evaluate them, and only 29% reported that students set due dates. The majority of respondents did report that student-instructor negotiation characterized the process of defining content. It is also worth noting that 64% of respondents suggest that students set personal learning objectives, but only 14% report that course objectives may be set by students (see Table 7).

2. Observation. As shown in Table 8, there were only two observations made with respect to course plan, both of which strongly indicated a flexible, emergent plan. Fifty

percent of 18 observations about options strongly indicated
that students had full choice about course structure options
compared to 39% of observations indicating that students had
no choice. It should be noted that observation records
indicated that most of the options were related to pacing
and topics for learning (see Table 9 for examples).

3. Course Materials. Table 10 shows that 48% of the
materials described a predetermined course structure, 48% a
partially emergent structure, and five percent a fully
emergent, flexible structure. Over 80% of materials
indicated that students had no choice about course
objectives, the methods used in classes, the content in
lectures and the methods to be used for evaluation. Over
40% of materials indicated that students had some choices
about content in seminars and labs, the topics for
assignments, and the pace at which the course proceeded.
Seventy-one percent of materials showed that students had
some choice about (reading) materials. The only options
over which the students in some courses had full control, as
indicated by course materials, were assignment topics (43%),
assignment methods (24%), and pace (five percent).

Climate.

1. Practice Survey. According to selected practices
reported on the survey, most respondents appear to act in a
way that is supportive of students. Sixty-four percent

assess students' needs for guidance, 79% suggest that students see them personally with concerns, and 100% invite questions from students (see Table 7).

There seems to be a fairly strong emphasis on developing collaborative relationships, particularly among students. Use of peer teaching and group exercises/projects was reported by 71% of respondents, and 43% allow evaluation activities to be completed in pairs or groups. There is less evidence of a collaborative relationship between students and instructors, at least in the planning aspects of the learning process. Only 29% negotiate learning contracts with students. Ninety-three percent do report the use of discussion, which one might expect would foster both student-student and student-instructor collaboration (see Table 7).

2. Observation. As is seen in Table 8, 68% of observations concerning attitude strongly indicated a supporting, affirming instructor attitude. However, this figure does not accurately reflect what was sensed by the researcher in many of the classrooms, which was an overall atmosphere of mutual respect.

Sixty-four percent of observations concerning relationships strongly indicated cooperative, collaborative relationships. Most of the observations made were

indicative of instructor support for collaborative relationships among students (see Table 9 for examples). Also seen were frequent instances of the instructor giving control of the session to one or more students, with the instructor assuming the stance of a general member of the class. Also observed were times when instructors would maintain their position of control, but would model instances of collaborative behavior for students.

Less than 20% of all observations in this category were not indicative of a climate suited to self-directed learning.

3. Course Materials. Table 10 shows that statements concerning the degree of instructor acceptance for late work from students indicated a noticeably unsupportive climate in 52% of the documents. A variety of other comments in 38% of documents did indicate a supportive instructor attitude towards students.

Eighty-one percent of the documents indicated that the instructor grades all assignments, a condition that is likely to isolate instructors from students. Looking at the methods used, 57% of documents indicated that all projects were completed by individual students, while 43% indicated the use of group work, either as in-class exercises or for assignments (see Table 10).

<u>Learner engagement</u>.

1. Practice Survey. As indicated by responses to
Learner Engagement items in Table 7, there seems to be a
deliberate attempt by the respondents to focus on the
learners. Less than one half of the respondents indicated
that content is prescribed by departmental guidelines, more
than one half reported that student concerns are addressed
at the beginning of class sessions. Eighty-six percent ask
students what they want to know and 69% said that course
sequence evolves from changing student needs.

The active involvement of students would normally be
demanded by a number of the instructional methods reported
by the respondents. Ninety-three percent use student
presentations, 86% ask students to complete independent
projects, and 43% use role play, simulations and games. It
should be noted that the relative frequency of use of
instructional methods by respondents is unknown. For
example, while an equal number of respondents (93%) reported
the use of lecture and the use of discussion, the
respondents were not asked to indicate how much of class
time was spent in lecture in comparison with time spent in
discussion (see Table 7).

2. Observation. Fifty-eight percent of the
observations concerning focus strongly indicated that the
learner and the learner's problems were the focus of the

session, while 28% of observations indicated a focus on the instructor or the subject matter (see Table 8). The researcher noted, in observing the classes, a natural tendency for the instructor to be the center of attention. Instructors often had to take deliberate action to return the focus to students (example in Table 9).

Sixty-seven percent of the observations of involvement strongly indicated that the students were actively involved in the learning process (see Table 8). No lectures were observed. Actually, no observed instructor spoke uninterrupted for longer than five minutes.

It should be noted that many of the classes observed were the last class of the term, and that answering student questions was a popular format.

3. Course Materials. Eighty-six percent of the materials described courses that were focused on the immediate or anticipated (generic) needs of the (generic) learner (see Table 10). It was clear that the instructors put an emphasis on course work that would be useful to students either in their present roles as students or in their anticipated roles as professionals. Many exercises focused on bridging the gap between the two roles.

All of the documents described courses in which at

least one half of the overall class time was spent in
lecture. Looking specifically at seminars/lab sessions, 48%
indicated that students made presentations during some
sessions, and five percent indicated that all sessions were
student-led. Fifty-two percent of materials listed
instructional methods, in addition to discussion, in which
students would be expected to actively participate, such as
role play and debate (see Table 10).

Learner competencies.

1. Practice Survey. There is little evidence in the
Practice Survey to indicate that the respondents focus on
developing the student's capacity for managing the learning
process. More than one half do assess personality
characteristics and more than one third do assess learning
style, but only seven percent suggest that students consider
these or other characteristics when planning their learning.
By discussing course evaluations in class, one can draw
attention to the process of learning within that class, but
only 35% of respondents reported this practice (see Table
7).

Forty-three percent of respondents indicated they use
instructional methods (role playing, simulations, journals)
and practices (student evaluation of activities) that are
likely to encourage students to reflect on the personal
meaning of knowledge (see Table 7).

There is conflicting evidence regarding opportunities provided by these instructors for students to enhance their skills in planning learning episodes. As reported earlier, only 14% reported that students set course objectives, yet 64% suggest that students set personal learning objectives. While frequencies for the structure items show that there is rather low student involvement in many aspects of course planning, Table 7 also shows that 86% of respondents ask students to complete independent projects. In carrying out these projects, it could be assumed that skills and strategies for planning and implementing learning would be developed.

2. Observation. All of the observations concerning Learning Competencies were indicative, at least mildly, of a positive instructor focus on developing students' capacities for learning. It should be noted that the negative point for all three indicators in this category was described as an absence, avoidance, or ignorance of the desired focus or behavior. Since it was only possible to describe and quantify behavior that was actually observed, the percentage frequency of positive indications that is reported is probably an exaggerated one. Also note that several observations were made of class discussions concerning the learning approach taken in the course, presumably since this was the last class of the term. Finally, note that most of the observations made regarding Skills and Strategies for

Learning were thinking and problem-solving skills rather than skills directly related to the managing of the learning process (see frequencies in Table 8, examples in Table 9).

3. Course Materials. As reported in Table 10, 81% of documents stated some rationale for certain aspects of the approach to learning taken in that particular course. Nineteen percent of materials mentioned other practices that would accentuate student awareness of the learning process, including peer evaluation, self-evaluation, and self-assessment of learning style.

Thirty-three percent of documents mentioned the use of methods (primarily some form of journal keeping) that might encourage student reflection on personal meaning in knowledge (see Table 10).

Fifty-seven percent of materials mentioned exercises that were designed to enhance thinking and problem-solving skills. Twenty-four percent included tips regarding effective management of certain learning activities, primarily the independent projects (see Table 10).

It should be noted that, within this category, rating of many of the documents could not be effectively done because there was no evidence of the condition noted in the materials. It was unclear whether this absence indicated a

lack of instructor emphasis on development of student capacity for planning learning, or simply a lack of evidence for this instructional emphasis in the course materials.

Orientation Results Correlated with Practice Results

The correlations between the Study group's responses to the Practice Survey and to the Orientation Survey were examined using Pearson Correlation Coefficients. Again, results were clustered according to the four main indicators of the Self-directed learning research model: Structure, Climate, Learner Engagement, and Learner Competencies. The correlations are presented in Tables 11 to 21.

Structure

Table 11 shows the correlations between all 11 structure items in the Orientation Survey and the 12 key items selected from the Practice Survey as most indicative of a course structure that is supportive of self-directed learning.

Some of the correlations seen in Table 11 are much as one would expect in a group that is oriented to self-derected learning. For example, "I allow the course structure to be influenced by students' suggestions" is positively correlated ($r = .42$) with the practice of defining content through negotiation. And "I prefer to let the course structure emerge as the course progresses" is highly correlated with two practices related to student

Table 11

Correlations Between Orientation and Practice: Structure

Practice	Orientation Item*										
Item*	2	3	10	16	18	22	29	31	34	35	37
11.	.11	0	−.21	.38	.39	−.02	.09	.11	.26	.52	.68
17.	.42	.66	.33	.11	.38	.04	.15	.05	−.31	.04	.47
25.	−.20	0	−.05	−.55	.54	−.14	−.17	−.37	.56	.51	.29
26.	.11	−.23	−.51	−.24	.39	−.26	.30	−.27	.56	.52	.12
34.	.23	.48	.18	−.19	.21	.02	.42	.03	.07	.33	.26
37.	.40	.23	.03	.24	.39	.04	.35	.08	.34	.21	.44
63.	.32	0	−.10	.19	−.19	−.04	−.15	−.23	−.42	−.32	−.28
65.	−.49	.22	.23	−.45	.38	.31	0	−.36	.14	.27	.45
71.	−	−	−	−	−	−	−	−	−	−	−
75.	.23	.24	−.07	−.02	.21	.26	.19	−.37	−.09	.02	.26
76.	.11	.23	.45	.07	.20	.22	.09	.12	−.04	.52	.49
79.	−.15	−.31	−.28	.34	0	−.17	−.13	−.40	.06	−.11	.22

*Orientation items are identified in Table 4 and/or Table 5; Practice items are identified in Table 6.

influence on structure: course objectives being set by students (r = .56), and students setting personal learning objectives (r = .56).

However, many other items do not correlate positively. "I want my students to be in control of the learning situation" is negatively correlated with the practice of suggesting that students set personal learning objectives (r = -.26). And "I like to share the course planning process with my students" does not correlate with the related practice of defining course content through student-instructor negotiation (r = .05). Actually, it can be seen from Table 11 that these very two orientation items, which express views that characterize the self-directed approach, do not correlate positively with any of the structure items selected from the practice survey. Because this seemed so difficult to explain, the correlations between these two orientation items and all the items in the practice survey were examined. It was discovered that sharing the course planning process with students is moderately correlated with five items in the practice survey (see Table 12). Wanting students to be in control is moderately to highly correlated with 13 reported practices (see Table 13). A review of these two tables provides important clues to the respondents' concept of self-directed learning. This issue will be discussed further in Chapter Five.

Table 12

Correlations Between Orientation and Practice: Planning

Practice Item	Orientation Item 31:share course planning with students
1. assess student needs	.62
2. consider prior experiences	.47
23. student input modifies course objectives	.40
41. finalize plans by course mid-point	.43
77. change on basis of course evaluations	.60

Table 13

Correlations Between Orientation and Practice: Students in Control

Practice Item	Orientation Item 22: want students in control of learning
1. assess student needs	.75
2. consider prior experiences	.45
3. consider student expectations	.45
12. content prescribed by program guidelines	.81
27. students modify objectives to meet needs	.58
28. students set extra objectives to meet needs	.42
32. students see instructor re concerns	.44
39. students to follow through with plans	.47
51. independent student projects	.45
52. learning partners	.42
54. presentations by students	.51
66. students suggest evaluation activities	.50
77. students evaluate course when over	.51

One must remember that the practice items listed in Table 11 were selected as rather extreme indicators of a self-directed approach to instruction. To get a better idea of the relationship between attitudes expressed in the Orientation Survey and instructional practice as reported in the Practice Survey, a number of items specifically related to setting the course structure were looked at more closely.

Table 14 presents the correlations between two orientation items related to course content and all of the practice items related to course content. In actual fact, it turns out that the practice of defining course content through a process of student-instructor negotiation is the practice most highly correlated with "I try to offer my students a choice of topics to be covered" (r = .66) and "Course content is best determined in consultation with my students" (r = .47).

Table 15 presents the correlations between the single orientation item directly related to objectives and all of the practice items related to objectives. The practice most highly correlated with "I want my students to choose their own learning objectives" is that of setting course objectives after meeting the class (r = .59). Moderate correlations are seen between this attitude towards learning objectives and the practice of explaining course objectives to students (r = .38) and, more to the point, recommending

Table 14

Correlations Between Orientation and Practice: Content

Practice Item	Orientation Item	
	3: choice of topics	37: content consultation
12. content prescribed	.12	0
13. instructor defines content	.22	.10
14. students adapt content by choosing seminar/lab topics	-.27	.17
15. adapt content by choosing assignment topics	-	-
16. adapt content by choosing reading materials	-.22	.10
17. negotiation re content	.66	.47

Table 15

Correlations Between Orientation and Practice: Objectives

Practice Item	Orientation Item 18: students to choose learning objectives
19. set objectives before 1st session	-.63
20. set objectives after meeting class	.59
21. hand out objectives and explain	.38
22. ask for changes to distributed objectives	-.19
23. ask for input, then distribute and modify	0
26. recommend use of personal objectives	.39
27. may adapt objectives to meet learning needs	0
28. set additional objectives to meet needs	-.19
29. drop out if objectives don't meet needs	-.38

that students set personal learning objectives (r = .39).

Table 16 presents the correlations between the single orientation item related to pacing and all of the practice items related to pacing. Correlations are much as one would expect to see for most items. "I want the students to set the pace for learning" moderately correlates with the practices of addressing student concerns at the start of class sessions (r = 56), allowing students to set due dates (r = .42), sequencing instruction around student-set priorities (r = .34), and finalizing instruction plans each week (r = .42). The negative correlation (r = -.20) with the practice of allowing students to modify their plans as the course progresses is unexpected, and will be explored further in Chapter Five.

Table 17 presents the correlations between the orientation item "I want my students to choose the activities for learning" and all of the practice items related to instructional methods. The correlation with the practice of allowing students to choose some of the instructional methods is a negative one (r = -.10). However, there is a moderate correlation with the use of independent student projects (r = .38) and a high correlation with presentations by students (r = .70).

Table 18 presents the correlations between the single

Table 16

Correlations Between Orientation and Practice: Pace

Practice Item	Orientation Item 29: students set pace
30. concerns addressed beginning of class	.56
31. concerns addressed end of class	-.21
32. see students personally re concerns	-.04
33. instructor sets due dates	.17
34. students set due dates	.42
35. sequence determined by content	.06
36. sequence evolves from student needs	.22
37. sequence around student-set priorities	.34
38. students may modify learning plans	-.20
39. students to follow through with plans	-.17
40. instructor finalizes plans by 2nd session	-.15
41. instructor finalizes plans by mid-course	-.03
42. instructor finalizes plans each week	.42

Table 17

Correlations Between Orientation and Practice: Activities

Practice Item	Orientation Item 10: students choose activities
63.students select instructional methods	−.10
66.students design evaluation activities	.18

Methods:

43.lecture	.26	53.peer teaching	.07
44.questioning	−.28	54.presentations	.70
45.inviting questions	−	55.role playing	−.10
46.class discussions	.26	56.simulations/games	.13
47.discussion groups	−.19	57.drill/practice	.19
48.group exercises	.07	58.computerized	.08
49.demonstration	−.27	59.programmed	−
50.lab experiences	.03	60.modularized	.19
51.independent projects	.38	61.journal writing	−.10
52.learning partners	.03	62.other	.08

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Table 18

Correlations Between Orientation and Practice: Evaluation

Practice Item	Orientation Item 35:students set criteria for evaluation
64. students evaluate some of own work	.10
65. students assign weights to activities	.42
Grades assigned on basis of:	
72. relative value in class	.18
73. improvement demonstrated	.28
74. attainment of set objectives	.46
75. learning contracts	.02

orientation item related to evaluation of learning and all of the practice items related to evaluation of learning. There are moderate correlations between "I want my students to choose the criteria for their evaluation" and the practices of expecting students to assign the weights to evaluation activities (r = .42) and assigning grades based on the degree of attainment of objectives (r = .46). It is interesting that there was little correlation with the practice of letting students evaluate some of their own work.

Climate

Table 19 shows the correlations between the five climate items in the Orientation Survey and the 14 items selected from the Practice Survey as indicative of a climate that is supportive of self-directed learning.

As is seen in Table 19, there is not a large number of significant correlations between the orientation items and the practice items. But the observed relationships are meaningful. Most noteworthy is the fact that "I have a high regard for my students' abilities" is positively correlated with the practices of defining content through negotiation (r = .33), allowing students to modify plans (r = .64), peer teaching (r = .53), and learning contracts (r = .33), and negatively correlated with seeing students personally about their concerns (r = -.42). The orientation item "I pay

Table 19

Correlations Between Orientation and Practice: Climate

Practice Item	Orientation Item				
	1	4	9	25	27
8.assess need for autonomy	.02	-.27	-.09	-.30	-.36
17.content negotiated	.33	.56	.20	.06	.42
24.share objectives with students	-	-	-	-	-
32.see instructor personally	-.42	-.08	.04	.28	-.10
38.students may modify plans	.64	0	.21	0	.28
45.inviting questions	-	-	-	-	-
47.discussion groups	.11	-.19	.02	-.11	-.27
48.group exercises/projects	-.04	.07	.35	.19	.39
52.learning partners	-.02	.03	.24	.30	.60
53.peer teaching	.53	-.18	.35	-.26	.14
64.students evaluate own work	.19	-.33	-.06	-.06	.03
68.evaluation activities in groups	-.07	.13	.22	.35	.38
75.contracts	.33	.18	.11	-.19	.23

Legend: Orientation Items

    1. Regard for student abilities

    4. Learn from students

    9. Appreciate student efforts

    25. Students are resources

    27. Attention to meaning

attention to the personal meaning that students attach to knowledge" correlates highly with the use of learning partners ($r = .60$). It is significant that the belief "I learn from my students" correlates highly with the use of negotiation to define content ($r = .56$). However, this particular correlation between belief and practice does not extend to the practice of setting grades - there is a negative correlation between learning from students and allowing students to negotiate grades ($r = -.33$).

Learner Engagement

Table 20 shows the correlations between the four learner engagement items in the Orientation Survey and the 17 items selected from the Practice Survey as indicative of the degree to which learners are engaged in the learning situation.

Items 11 and 19 from the Orientation Survey relate to the instructor's focus on the concerns of the student. Looking at Item 11, "The immediate concerns of my students are a priority in my classes," one sees that it correlates positively with all four practices related to the assessment of learner characteristics, especially prior relevant experiences and student expectations ($r = .68$). Item 11 also positively correlates with the practice item "Content is prescribed by departmental/program guidelines," ($r = .36$) a contradictory situation which is modified by the strong

Table 20

Correlations Between Orientation and Practice: Learner
Engagement

Practice Items	Orientation Items			
	6	11	13	19
Instructor assesses:				
1.students want/need to know	.33	43	-.11	.20
2.prior experiences	.42	.68	-.15	.35
3.expectations	.42	.68	-.15	.55
5.entrance abilities	.12	.24	-.21	.28
12.content prescribed	.30	.36	.27	.25
19.set objectives before 1st class	-.25	-.50	-.24	-.59
30.address concerns start of sessions	.46	-.15	-.24	.09
36.sequence evolves from needs	.22	.22	-.19	.13
44.questioning	-.33	-.48	-.11	-.26
45.inviting questions	-	-	-	-
46.class discussion	.22	.09	-.08	.29
47.discussion groups	-.22	-.32	-.08	-.34
50.laboratory experiences	-.36	-.46	.21	-.11
51.independent projects	0	.13	-.11	-.03
54.student presentations	.22	.50	-.08	.29
57.drill and practice	.22	-.09	.08	.34
72.grading on basis of relative value	.25	-.20	-.44	.05

Legend: Orientation Items

6.Students involved in class   13.Participation enhances

11.Immediate concerns priority   19.Resolve student problems

negative correlation between this same orientation item and the practice of setting course objectives before the first class session ($r = -.50$). Of the instructional methods listed, only presentations by students correlates positively with a focus on immediate concerns ($r = .50$).

Items 6 and 13 relate to the active participation of students in the learning process. "I want my students to be actively involved in all class sessions" correlates positively with the practice of addressing student concerns at the beginning of class sessions ($r = .46$). "Learning is enhanced when my students actively participate in the learning process" does not correlate with any practice except for a small correlation with the use of lab experiences ($r = .21$). It is interesting that the use of questioning and discussion groups do not correlate positively with any of the learner engagement items. Class discussion and independent student projects do not correlate highly, either.

Learner Competencies

Table 21 shows the correlations between the seven learning process items in the Orientation Survey and the 15 items selected from the Practice Survey as indicative of a focus on developing students' capacities for managing learning.

Table 21

Correlations Between Orientation and Practice: Learner
Competencies

Practice	Orientation Item						
Item	7	8	21	23	27	33	36
4.assess learning style	-.12	-.40	0	.05	.36	-.16	.24
6.assess personality	.06	.65	.29	.32	.08	.03	.29
10.students consider self	.11	-.06	-.28	-.05	-.61	-.14	.30
18.no course objectives	.11	-.06	-.28	.29	.05	.25	-.22
26.personal objectives	-.30	-.07	.15	.13	-.01	-.25	.32
34.student-set due dates	.26	.60	.32	.08	.11	.13	.24
44.questioning	-.17	.09	.41	-.42	-.23	-.37	.14
49.demonstration	-.30	-.30	.15	-.05	.11	-.05	-.52
51.independent projects	-.17	.41	0	-.18	.09	-.37	-.06
55.role playing	-.47	-.19	0	-.15	-.08	-.43	-.29
56.simulations/games	-.06	-.19	-.29	-.67	.03	-.43	-.29
61.journal writing	-.47	-.19	0	.37	.38	-.23	-.02
64.students evaluate work	-.47	-.19	-.29	-.32	.04	-.43	-.43
75.learning contracts	-.20	.11	.32	.46	.23	-.09	-.06
78.discuss evaluations	.30	.07	-.15	.23	.13	.05	.10

Legend: Orientation Items

7.Independent thinking   27.Personal meaning important

8.Learning strategies   33.Understand learning style

21.Challenge assumptions   36.Problem-solving skills

23.Opportunities to reflect

"I help my students develop personal strategies for learning" is a key item within this category. Note that there is a negative correlation between this item and the practice of assessing learning styles ($r = -.40$). It is, however, highly correlated with students setting due dates ($r = .60$) and assessing personality characteristics ($r = .65$), and moderately correlated with the use of independent student projects ($r = .41$).

"My students need to understand their personal learning style" is another key indicator item. Table 21 shows that the correlations between this item and all practice items in the category are either insignificant or strongly negative. These results were so unexpected that the correlations between this item and all of the items in the Practice Survey were reviewed to look for clues to respondents' interpretation of this item. The highest correlations for this belief were found with the following practices: lecturing ($r = .52$), having content prescribed by departmental/program guidelines ($r = .46$), requesting student input re instructor-set objectives ($r = .37$), suggesting that students take another course if personal objectives do not match course objectives ($r = .37$), and peer teaching ($r = .32$).

Finally, it is worth looking at correlations between some of the instructional practices listed in Table 21, and

the Orientation items. Journal writing is positively correlated with "I try to provide opportunities for my students to reflect upon their learning" (r = .37), and "I pay attention to the personal meaning that students attach to knowledge" (r = .38). Use of demonstration is negatively correlated with fostering independent thinking (r = -.30), developing students' personal learning strategies (r = -.30), and the belief that problem-solving stategies are more useful than knowledge of content (r = -.52). Questioning is positively correlated with challenging students' assumptions (r = .41).

Interview Results

Interviews with the Study Group

Although it was not part of the original research design, brief unstructured interviews, or discussions, were held with 11 of the 14 instructors who completed the Practice Survey. When the researcher met with the instructors to make arrangements for classroom observation or to pick up course materials for analysis, many of them expressed a strong interest in talking about their approach to teaching. Written notes kept during these interviews are included in Appendix E. A brief overview of content will be given here.

The focus of most interviews was the rationale for the instructional approach. Instructors explained what it was

they were trying to accomplish in their teaching. All instructors described an approach that focused on learners, though their approaches varied from one another in other important ways. Not all claimed to be proponents of self-directed learning per se. Some described a personal theory of teaching that included key aspects of self-directed learning, yet did not have self-directed learning as its main goal. It is notable that most of the instructors perceived themselves to be different from other university instructors in their approach to teaching. It was also quite apparent that these instructors had a high degree of commitment to the teaching aspect of their professional role. Of particular interest from these interview records were the instructors' descriptions of the various difficulties they face in implementing their approach to teaching in the university setting.

The following is a summary of the constraints mentioned by these 11 instructors, categorized according to the source of the constraint (i.e., students, university, self, or colleagues):

Students. Students may:
- be critical of the approach. The instructor is on review. "They will check you out because you have declared yourself as different."
- not want to take responsibility for their learning.

- lack the necessary motivation.

- be resistant - many find the process unnerving and must be initiated gradually.

- build themselves structures for learning that are much more (or less) useful and extensive than others', and this will affect the quality of their learning.

- not ask enough questions.

- not know how to negotiate marks.

- not have the maturity that is necessary to plan learning.

- be "marks-crunching" in order to ensure their acceptance in professional programs; grading is then a severe problem.

Given this list of difficulties encountered with students, one might ask why these instructors remain committed to the approach. The following comments seemed typical, as well as explanatory: "There are just enough students who do want to learn this way to keep you going day-to-day," and "A class can be run as if students are self-directed learners, even though often they are not. It gives students a glimpse of what real education can be."

University. Within the university:

- there is excessive emphasis on memory learning and competitive learning rather than self-directed learning.

- treating students as individuals is in conflict with the university's philosophy to treat everyone as equal - this conflict leads to conflicting expectations in students.

- diversions to research and committee work diffuse focus on teaching and limit time available to make innovative approaches work.

- large numbers can kill the approach. With more than 50 persons in a class, the instructor can only dispense, there is no interaction, and a few vocal people dominate.

- course outlines must be signed by department chair before the first day of classes, thereby restricting flexibility.

- constraints surrounding marking (e.g., Grade Review Board) impose undue restrictions on course structure; university evaluation systems are inappropriate to this approach to learning. (Note. Constraints surrounding marking were by far the most frequently mentioned constraint of any type.)

Self. The instructor:

- must have a real commitment to the approach to make it work.

- must be confident in the approach; there is a cycle of uncertainty followed by growth with each new group of students.

- if a woman, may have to work harder to establish herself as a presence in the classroom. This affects the approach taken.

- must be prepared to live with disasters when students do not take responsibility for their learning. "We are trained to pick up the pieces" (esp. women teachers).

- must learn to let go.

- must learn to live with the sense of disappointment when students do not push themselves harder.

Colleagues. Colleagues may:

- expect, when course sharing, that more conventional, less controversial approaches (rather than a self-directed approach) will be taken.

- complain about the flexibility in your approach - it makes them appear inflexible!

While all of the instructors interviewed were conscious of constraints on their practice, some seemed to find it easier to ignore constraints than did others. The researcher did note that the men interviewed presented themselves as being somewhat more secure in their approach than did the women. It should be noted that only two of the 11 interviewees were women, and that the researcher was a woman. In both interviews with women instructors, the instructor, not the researcher, raised the issue of gender. Men commented on how they "played the system" to arrange the necessary condition for self-directed learning in their classroom. The women were conscious of the fact that using this approach to learning might set them even further apart from their colleagues than they already were by virtue of their sex alone. They felt more strongly than many of the men that the system itself needed to be changed.

Interviews with the Not Self-directed Group

One hundred twenty-one out of the total 139 respondents to the Orientation Survey were identified as not oriented to a self-directed approach to teaching and learning. Three instructors from this group were interviewed in order to uncover the reasons behind their attitudes towards self-directed learning. Written notes kept during these interviews are included in Appendix F. The following is a summary of the main points made by these three instructors about self-directed learning in the university setting:

1. Students do not know what they need to learn (i.e., they don't have enough background knowledge in the subject area to set the direction for their learning).

2. Most student needs and interests can be fit into a predetermined course structure.

3. When the instructor provides structure for the course, students are able to free their attention for full participation in the learning process.

4. When the instructor sets the course requirements the course is easier to manage, given the large number of students to be taught and the university requirements to be met, and disagreements among students are minimized.

5. Students, in general, do not study all course material unless they are required to do so.

6. Instructors need the opportunity to arrange introductory courses in such a way that students attain a sense of mastery in the subject area and feel confident to continue

their studies.

7. Many students are not adequately prepared by the school system to competently manage their own learning.

8. Much of university training is pre-professional training. Students are expected by professional bodies to have certain basic competencies when they graduate. There must be a way of knowing whether required learning has in fact taken place.

9. It is the instructor's professional obligation to plan courses and to present course material in a comprehensive and organized manner.

10. Instructor-planned learning makes the best use of limited student-instructor contact time.

11. Knowledge is hierarchical in many disciplines. Courses must be set up by instructors in terms of sequential knowledge, thereby limiting the students' opportunities for input.

(Note. For further data concerning attitudes of university instructors towards self-directed learning, see respondents' comments on the Orientation Survey, in Appendix G.)

Summary

Eighty-seven percent of the total study sample reported instructional beliefs, values, and expectations that were not supportive of self-directed learning, especially in terms of student participation in program planning.

The remaining 13% reported instructional beliefs, values, and expectations that were fully supportive of self-directed learning, including an expectation of student participation in program planning. These instructors did make use of structures and processes for learning that were designed to put their stated support for self-directed learning into practice in the classroom. However, it appears that most did not have a concept of self-directed learning as comprehensive as that described in the research model.

Respondents seemed prepared to adapt their instructional approach in varying degrees to the demands of the university system, which all respondents viewed as an unsupportive environment for self-directed learning.

CHAPTER FIVE

DISCUSSION

This study addressed the problem of teacher support for
self-directed learning within a classroom setting in higher
education. The research question to be answered was "Do
teachers want adult learners to plan their own learning?"
The study was based on the assumptions that first, an
instructor must provide instructional structures and
processes that support students in their learning, and
second, the students must be involved in the planning of
learning if they are to assume full responsibility for their
learning. The research model should be reviewed before the
results are discussed. The reader is reminded that learner
control over aspects of the course Structure was considered
to be an essential and necessary condition for self-directed
learning, but that it went hand-in-hand with a development
of Learner Competencies to manage the learning process. A
positive Climate and full Engagement of Learners were
considered as essential, but insufficient, conditions of
self-directed learning.

This chapter will summarize the findings, present
conclusions, and suggest theoretical and practical
implications of the study, as well as implications for
future research.

Summary of Findings

A clear picture of the extent and nature of instructor support for self-directed learning within one university has emerged from this study. The purpose of the next section is to describe this picture through a summary of the findings. As has been the case throughout this report, the emphasis will be on learner participation in the planning function.

Orientation

The Orientation Survey was the primary means by which instructor attitudes concerning the structures and processes for learning and the roles and relationships of students and instructor were assessed. A review of results from this survey enables a reply to the question "What do these instructors say about student participation in the planning process?"

The overwhelming majority of respondents did not agree that students should be involved in most aspects of course planning. Planning was seen as the responsibility of the instructor. There was little support for the idea that course structure should be based on a flexible, emergent plan that allows opportunities for student choices about content, objectives, materials, etc. Respondents were least open to student participation in the planning of the evaluation of learning.

In most cases, respondents indicated that learning was structured around subject matter, and that course content was determined by the instructor. Yet, most instructors disagreed that their primary purpose was to deliver content and most did not feel that student learning suffered if the course outline was not strictly adhered to. These findings suggest two conditions. First, it appears that instructors may have some leeway in selecting the actual content to be covered in a course, despite the fact that it is structured around subject matter. Second, it appears that instructors are concerned with other aspects of student learning and the learning process in addition to the covering of course content. In fact, responses did indicate that most instructors valued and encouraged collaborative, cooperative relationships in the classroom, and that most wanted to build an atmosphere of acceptance and affirmation. They placed an especially high emphasis on the value of active student participation in learning. In addition, most respondents indicated that processes that foster independent thinking, critical awareness, reflection, and problem-solving were emphasized in addition to processes that enhance the acquisition of knowledge. Thus, while the emphasis on subject matter was strong and certainly seemed to receive more attention in planning than did the immediate concerns of students, there was also substantial concern for the learner engaged in the process of learning.

Also of interest from the Orientation Survey findings were items related to the issue of control. Relatively few respondents indicated that they want students to be in control of their learning. It is, therefore, not surprising that most did not feel that students should be given the opportunity to plan their learning. While a relatively greater number of instructors indicated that they tried to maintain control of the learning situation at all times, the moderate number certainly did not account for all of those who did not expect that students should be in control. Does this mean that most respondents felt that control over learning should be shared between instructor and student? Does it reflect a belief that neither student nor instructor could truly have control over learning? Or does it describe a situation where instructors had control over virtually all aspects of the learning situation by virtue of their position as planner of learning, and, therefore, felt no need to "try to maintain control"? Actually, it is notable that these instructors, who did not encourage a sense of student control, seemed to be in the position of wanting to encourage student participation.

The finding that most respondents did not want or expect to share the responsibility for course planning with students, while important, is certainly not an unexpected one. However, there were several other quite interesting and equally important general findings from the Orientation

Survey that should be reviewed.

First is the finding that 13% of total respondents were supportive of all four major components of the research model, including Structure. Second is the finding that these same instructors had mean responses for all items in all four indicator categories that were higher than the mean responses of the respondents who did not support self-directed learning, providing evidence of the validity of the research model. Third is the finding that there was a fair foundation of support for self-directed learning among all respondents to the survey, if not an all-out endorsement of the idea.

A specific example related to Climate illustrates the interrelatedness of these three findings. Most respondents reported a fairly high opinion of student abilities. However, those instructors who encouraged student participation in program planning were even more likely to report having a high regard for student abilities. It is unlikely that the students of these instructors were in fact more capable than the students of other instructors. But it does beg the question of which comes first - high regard for students or promotion of self-directed learning - and illustrates how the different categories are interrelated. And, at the same time as high regard for students is considered as a possible prerequisite for instructor support

of self-directed learning, it is also seen that it is a necessary but insufficient condition, since many respondents who cited high regard for students had no expectation that they would be involved in the planning of learning.

Practice

Instructional practices of those respondents who seemed committed to the self-directed approach were assessed through a combination of the Practice Survey, observation of practice, and analysis of course materials. A review of results from these three procedures enables a reply to the question "What are the instructional practices of those instructors who claim to value self-directed learning?"

In the next section practice will be discussed in the same format as it was presented in Chapter Four (i.e., in terms of the four categories of the research model: Structure, Climate, Learner Engagement, and Learner Competencies).

Structure. It appears that most instructors provided a course structure that was flexible enough to meet a variety of student needs, but that was primarily predetermined rather than emergent. A picture begins to emerge of an instructional approach in which the instructor first considers general student characteristics and ways that previous students have responded to course format, and then

plans the learning experience accordingly. However, the instructor builds in a series of "check points" where the specific needs of individual students may be considered and the course requirements and expectations may be modified if necessary. These instructors gave individual students control over certain specific aspects of the learning experience, but did not seem prepared to give control over class learning as a whole to the student body as a whole.

Generally speaking, there was more instructor flexibility and student control evident in the classroom on a day-to-day basis (as observed) than there was in the overall course structure (as noted in course materials). This may be partially explained by the fact that classes were observed toward the end of the semester, while course materials were primarily designed to be handed out at course onset. Generally speaking, instructors are more likely to be intent on defining structure at the beginning of a course and more inclined to let students take charge of the learning experience as it comes to an end. However, most of the reviewed course materials would not alert students to an instructor's expectation of self-directed learning in these courses.

Climate. Most of these instructors actively expressed appreciation and support for their students and engaged in practices that fostered the development of a positive

learning environment. In addition, emphasis in practice was on cooperative rather than competitive relationships among students, and instructor actions tended to close, rather than widen, the gap between instructor and students.

However, student-instructor collaboration did not extend to include the practice of collaborative decision-making concerning course structure or student evaluation. As a result, power remained primarily in the hands of the instructor.

Instructors were less likely to encourage group work for those activities that were to be evaluated than for other general learning activities. This situation seemed to imply an instructor belief that individual work is more worthwhile than group work, or that outcome in terms of individual learning is more worthwhile than process. It may simply reflect the context in which learning took place, where the instructor was expected to report on the learning outcome for individual students.

Finally, some comment is warranted concerning the attitudes towards students that were revealed by statements about penalties for late work. It is not the intention here to argue the relative merit of instructor-set due dates. Most instructors seemed to view such statements as an administrative necessity given the teaching/learning context

(i.e., large classes and university deadlines for grade submissions). Indeed, in speaking with instructors, the researcher sensed that they would be more flexible in accepting work than their written statements indicated. However, many of the comments set a tone that seemed to belittle the experiences and commitments of students outside of the classroom, and implied that such rules were necessary given the inconsiderate and/or lazy attitude of most students. At the same time, it is likely that most students do not consciously register any objection to this type of statement, if only because they are so typical.

Learner Engagement. These instructors expended a considerable amount of energy on practices designed to increase student involvement and to focus attention on student concerns. An image arises of a situation in which instructors actually lift the focus from their own shoulders and attempt to place it on the shoulders of the student. The fact that the instructors found such action necessary suggests that many students were either unaccustomed or resistant to the expectations of the instructor.

Courses appeared to be more learner centered than one might expect to find in higher education. The courses were subject-based, but the instructors structured them in ways that were intended to make the subject matter more meaningful to students. It is important to remember that,

for the most part, it was the instructors who structured the learning, while trying to keep the students' best interests in mind. Less evident was practice that expected students to select and focus on what was most valuable for them to learn.

In observation of practice, instructional methods that demanded active student participation in the class were most frequently observed. It is unclear whether these methods were typical of practice throughout the courses. However, most of these instructors had apparently come to the conclusion that it was a good idea to place the responsibility for running some, if not all, class sessions firmly in the hands of the students.

Learner Competencies. Evidence is somewhat fragmentary regarding the use of instructional practices that are meant to develop student competency in various aspects of the learning process. This is largely due to the elusive and complex nature of this category and the fact that it was investigated within the confines of a study that focussed primarily on the planning of learning. It is clear that most instructors did not expect students to improve their capacity for managing learning by actually planning the full course of learning. Many instructors apparently used independent student projects as a means of encouraging some student planning of learning experiences. However,

instructors often supplied clearly defined guidelines for structure and expectations of outcome for student projects. Little leeway was left for students to plan, manage, and present a project according to guidelines that they developed.

The most frequently described practice within this category was instructor behavior that emphasized the development of thinking and problem-solving skills. Many course materials did present a rationale for the use of instructional strategies which might help students develop critical awareness of how process affects outcome. It is not known if instructors discussed this further in class. In addition, there was moderate use of student journals as a means of encouraging student reflection on personal meaning in course material. Finally, it is clear that most instructors engaged in end-of-course practices that were designed to draw student attention to the learning process that had just taken place.

Correlations between Orientation and Practice

The Study group indicated, by way of their responses to the Orientation Survey, a certain measure of support for the self-directed approach to teaching and learning. The instructional practices of the Study group reflect, in many instances, their statements of support. Yet, all practices were not as might be expected among instructors who are

committed to self-directed learning, especially regarding
learner participation in program planning. Correlations
between Study group responses to the Orientation Survey and
the Practice Survey provided some indication of the way
these instructors put stated beliefs into practice. In the
next section, correlations between orientation and practice
will be reviewed and discussed in terms of the four
categories of the research model: Structure, Climate,
Learner Engagement, and Learner Competencies.

Structure. Correlations in this category seemed to
confirm the view of self-directed learning that had begun to
emerge in the previous description of practice. For these
instructors, sharing the course planning process, when
translated into practice, meant (a) assessing certain
student characteristics and adjusting the course structure
accordingly, (b) setting course objectives and allowing the
class to modify them if necessary, and (c) modifying the
course again if students' course evaluations suggest it is
necessary. For these instructors, wanting students to be in
control of the learning situation, when translated into
practice, meant that they expected students to (a) either
modify course objectives or set additional objectives to
meet personal learning needs, (b) come to see the instructor
if they had concerns about the course, (c) follow through
with their plans for learning, (d) complete independent
learning projects, (e) make presentations to the class, (f)

suggest evaluation activities, and (g) evaluate the course
when it was over. This suggests a situation where
independent, competent learners are expected to demonstrate
control over certain aspects of the learning process, and
are permitted to adapt the preset course structure to meet
their needs. Student control was especially desired when
course content was prescribed by program guidelines,
implying either that student control was especially
desirable in highly structured courses, or that instructors
expected students to be in control when there was less
opportunity for the instructor to be in control.

Instructor belief that course content was best
determined in consultation with students became, in
practice, defining content through a process of student -
instructor negotiation. Practice findings indicated that
this process was most usually followed when defining seminar
and assignment topics and less likely to be followed when
setting lecture content.

If instructors indicated that they wanted students to
choose their own learning objectives, they were likely to
recommend that students set personal learning objectives and
were also likely to set course objectives only after meeting
the class. Again, this implies that the instructor sees it
as his or her responsibility to set course objectives, but
is willing to consider student needs.

It was stated earlier that pacing was the practice over which students were most likely to have influence. Correlations indicated that those instructors who wanted students to set the pace for learning did in fact address student concerns at the start of each session, allow students to set due dates, and sequence instruction around student-set priorities. The fact that the instructor is still the person in charge of planning the course is reflected in the instructor practice of finalizing his or her course plans each week but not allowing students to modify their plans as the course progresses. If an instructor adjusted a course to suit students but student plans were frequently changed, the resulting plan might be quite unstructured.

Wanting students to choose the activities for learning, for these instructors, meant the use of independent student projects, and especially student presentations.In other words, instructors expected the students to have a choice about instructional methods when it was the students who would be using them.

Very few instructors indicated that they wanted their students to choose the evaluation criteria. However, those instructors who did agree with this statement did, in practice, expect students to assign weights to evaluation activities. They did not necessarily let students evaluate

their own work. The researcher likewise noted, in reviewing the course materials, that those instructors who encouraged peer or self-evaluation usually provided the criteria for marking. It appears that these instructors were willing to allow students to have control over one or the other practice, but not both.

Climate. Only a small number of significant correlations were found between orientation and practice in the Climate category, probably because there was little variation in instructors' responses to the Orientation items. Clearly, most respondents wanted to provide an inviting climate for learning. Again, evidence is found for a conditional relationship between having a high regard for student abilities and instructional practices designed to encourage self-directed learning. It appears that instructors who stated that they learn from their students did not encourage student input in the grading process. Perhaps these instructors felt that they had established enough of a connection with their students that student grading was unnecessary, and possibly even detrimental to the learning environment.

Learner Engagement. Instructors who stated that the immediate concerns of students were a priority reported that they assessed and considered learner characteristics when planning courses. This would be one approach to focusing on

student concerns while still maintaining a predetermined course structure rather than an emergent one. When course content was prescribed, it seems that instructors felt it was even more important to consider student concerns. Those instructors who addressed student concerns at the beginning of each session seemed to do so as a way of helping students to feel involved rather than as a way of actually resolving those concerns. The main method used for focusing on student concerns in class seemed to be student presentations.

Overall agreement with the belief that active student participation enhances learning was so high that correlations with related instructional practices were difficult to find. It appears that questioning, class or group discussion, and independent student projects were not used for the express purpose of increasing student involvement in learning. Indeed, it seems that these instructors <u>expected</u> students to participate. It was the students' responsibility to participate - not the instructor's responsibility to ensure that they did.

<u>Learner Competencies</u>. Those instructors who said that they help students develop personal strategies for learning seemed to interpret this in practice as assistance with techniques for management of independent learning projects. They were likely to consider personality differences among

students in suggesting an approach to take. It appears that those instructors who considered students' learning style when planning a course did not seem to feel it was necessary that students receive help in developing personal learning strategies, presumably because the instructor was providing a course well suited to their needs.

An instructor belief that students should understand personal learning style was tied to the practices of lecturing, following a prescribed content, and suggesting that students take another course if course objectives do not meet their needs. This suggests that instructors feel it is particularly important for students to be aware of their strengths and limitations when there can be little flexibility in the course as offered. It seems the instructors want students to be able to take charge of their learning and to make good use of what the course has to offer.

Those instructors who try to provide opportunities for students to reflect are more likely to make use of student journals. Those who feel it is important to challenge student assumptions tend to use questioning techniques in the classroom.

Interviews

Self-directed Study Group. All of the instructors who

were interviewed regarding their support of self-directed learning described an approach to instruction that was learner-centered. All agreed that self-directed learning was very desirable, though not all saw it as the main goal of their teaching. All perceived the self-directed approach as unconventional, difficult to enact, but worthwhile in the university setting. Most believed that many students are not self-directed learners, but some believed that all students are self-directed learners, although they may not be learning what is being taught. The instructors tried to foster self-directed learning in all teaching situations, but did not expect to use the same approach in every situation nor to see the same outcome in terms of students' self-directed behavior in every situation. In addition to the difficulties they faced in terms of adapting the approach to suit the students that they taught, they also mentioned constraints related to the expectations of colleagues and the demands of the university. University imposed guidelines surrounding evaluation of students seemed to pose the most annoying problems for these instructors. There was considerable variation among instructors regarding the means that were used to fit their rather unconventional approach into the conventional university setting.

Not Self-directed Group. All of the instructors who were interviewed concerning their lack of stated support for self-directed learning felt that the self-directed approach

was inappropriate for the university setting, though they agreed that self-directed learners were in fact desirable. These instructors did not believe that self-directed learning could provide enough clear benefits to overcome its severe drawbacks. The most common reasons they gave for using a teacher-directed approach were that: (a) students do not know what they need to learn - the instructor knows best what their learning needs are and how they can be met, and thus can reduce the chance of student failure; (b) a course planned by the instructor is easier to manage; and (c) universities must ensure that all students acquire certain basic knowledge and competencies, especially in pre-professional programs.

Conclusions

Research findings indicate that there was little faculty support for self-directed learning at this university. Most faculty did not value student participation in program planning. However, there was considerable stated support for some of the basic principles of adult education. Faculty valued collaborative, supportive relationships among and with students, and disclosed attitudes that were favourable to a positive learning climate. They indicated that attention to learner concerns (related to course content) was important and that learners should be active participators in learning. Faculty seemed interested in developing learner competencies

in learning, particularly critical thinking and problem-solving skills, although not for the express purpose of enhancing students' capacity for self-directed learning. In the end, the fact that faculty wanted control over most aspects of course planning and structure effectively limited the extent to which collaboration and participation could be fostered in the classroom.

A small group of faculty did support the concept of self-directed learning, including student participation in the planning of learning. These faculty attempted to put their beliefs into practice in the classroom through structures and processes that gave a certain degree of responsibility for planning to the students. However, all of their instructional practices were not as one might expect to see among instructors who are committed to self-directed learning. They certainly gave students more control over the learning plan than the majority of faculty felt was appropriate. But they continued to exercise more control relative to that which was granted to students.

Why was there this apparent discrepancy between support for the concept of self-directed learning and actual classroom practice? An attempt will be made to answer this question from a number of different perspectives.

In reviewing the research data, it was tempting to

conclude that self-directed learning was an "aside" to the instructional approach of these instructors, rather than the focus. However, in reviewing the interview notes, the researcher was reminded of the passion of many of these instructors and of their spoken commitment to the self-directed approach. Yet, their beliefs seemed to inform practice to a limited degree. It could be that these instructors were simply not aware of the discrepancies between their beliefs and their practice. Perhaps they were not aware of how the structure of the learning experience affects the very nature of the learning experience. Some of the instructors may not have been skilled in the teaching processes that were required for effective implementation of their beliefs. Some tended to shy away from a discussion of teaching techniques, which were perceived as too "gimicky". These instructors seemed to feel that their purposes and good intentions would be communicated by their general attitude and approach with students. Many were more certain about describing what they did not do in practice, than what they did do to enhance self-directed learning. These instructors could have benefited from a better operational plan for making their vision a reality.

Another possibility is that these instructors did not truly believe in self-directed learning, and that this lack of real support became apparent in their instructional practices. That is, they wanted students to take more

responsibility for their learning and they wanted students to be actively involved in courses, but they did not want students to have too much control. It may be that faculty are quite willing to accept more responsibility for their students' learning if it ensures that power remains in faculty's hands. To be fair, many students are probably willing to accept less power, if it decreases their burden of personal responsibility. This explanation is even more plausible for the larger sample of faculty who expressed support for many adult learning principles, but not for learner participation in the planning of learning.

Alternatively, those instructors who supported the concept of self-directed learning may have had a very different definition of self-directed learning than was defined in the research model. This explanation is supported by many of the correlations that were found between orientation and practice. Many instructors (in the larger faculty sample as well) seemed to equate self-directedness with self-sufficiency in learning. This type of learner would need little support or assistance, could work effectively in isolation, and could easily adapt to the demands of quite rigorous courses, but would not necessarily be expected to set the direction for the course of learning. It should be recalled that in the adult education literature and in this study it is assumed that the self-directed learner first sets the direction for learning, and then

proceeds to follow through with learning and to evaluate the results. An instructor's assistance or guidance may be required at any or all of these stages.

Finally, these instructors may have had a very different vision of self-directed learning because of the overwhelming influence of the university setting. That is, they could not define self-directed as a concept related to instructional practice without actually situating it in the instructional context. In so doing, self-directed as an ideal concept was modified to self-directed as an attainable concept. This is related to the kinds of constraints that have been identified as having a bearing on practice. Student characteristics were one factor that appeared to influence most instructors to varying degrees. Student level of maturity, their expectations, and their level of interest in learning, all needed to be considered in selecting an appropriate instructional approach to take. Specific institutional characteristics, such as class sizes and reporting obligations concerning course plans and grades, also influenced instructors to a certain degree, and were identified as constraints on practice. But the university setting was more than a constraint. It had a profound effect on structure. The requirements of the setting were largely treated as an assumption by the faculty when defining instructional practice. While at first glance this appears to be a pragmatic approach to the situation

that is perfectly explainable and acceptable, there can be a danger when the setting for instruction becomes the rationale for the instructional approach. While it is an axiom of effective teaching to take the setting into account when planning instruction, it is also a fundamental principle of good practice to consider the characteristics of the learners and the overall goals for the learning experience. There is a great deal of support in the adult education literature for the notion that a self-directed approach to learning is well suited to the characteristics of adult learners and to the goals of adult education. While it is accepted that a self-directed approach may have to be adapted to specific situations, it would seem foolhardy to abandon it because it does not suit a setting. The possibilities for alteration of the setting should be considered as well, if the long-term needs of learners as learners are to be met.

Implications

How can university instructors who support self-directed learning fit their practice into this picture? First, they must consciously take their self-directed philosophy, place it squarely in the higher education setting, and note well the areas of potential conflict. The university's first obligation is to develop, maintain, and promote standards of excellence in academic achievement and professional training. Within such a system, self-directed

learning is likely to be encouraged only if it is seen to facilitate excellence in academic achievement and professional training. It is not likely to be encouraged if it is seen to compromise standards. The instructor who is committed to the self-directed approach recognizes that self-directed learning does not always result in an end product that meets preconceived standards, especially standards as defined by others. It is the process of learning and the identity of the learner that are the primary concerns. The desired result from a self-directed learning episode is growth, change and development - learning that is personally meaningful, and therefore particularly useful. Self-directed learning can co-exist with the obligations of higher education, and in fact the two approaches may often enhance one another. But it must be recognized that the primary concerns of each approach are different and that structures set up to support each approach will often be in conflict, as was observed in this study.

This situation suggests that the instructor who wishes to facilitate self-directed learning among students in higher education must take on the role of mediator, or go-between, if he or she wants to be effective. The instructor who believes in the self-directed approach must build a classroom environment that supports it, but also must be careful to link the classroom environment with the larger

university setting. Expectations of the instructor, of the students, and of the university need to be made explicit and areas of potential conflict clarified, if the process is to have a chance at succeeding.

An instructor who wishes to redefine the conditions of learning in one course among many that a student will attend must recognize that there is an element of risk involved for the students, especially when those students face excessive demands to succeed. Somehow that instructor must build a feeling of trust within that classroom. The students need to know where they are going. For this the instructor must be confident that the approach is worthwhile and must be able to provide a rationale for the approach to the students. The instructor must be prepared to provide assistance for students as they adapt to a different way of learning, and the instructor must show respect for the students, acting in partnership with them to build an effective learning environment. Finally, the instructor needs to let go, to give up some of his/her control over the situation, to let the students take the chance of directing their own learning, and to accept that the final responsibility for learning rests with the learner.

Instructors who are overly mindful of institutional demands and their effects on student expectations may be tempted to compromise their belief in the value of self-

directed learning by adapting their approach excessively in order to meet the demands of the situation. They will have difficulty building an environment that is truly supportive on self-directed learning. At the same time, instructors who essentially ignore the setting and provide no guidance for students in negotiating their way around institutional constraints, and instructors who provide little structure for learning but do not assist students in building their own structure, do the students no favour either. Students in such undefined situations, who are also under pressure to perform competently, may become so concerned and disoriented that they are unable to focus on learning at all. The instructor can best function as a mediator between the self-directed learner and the demands of higher education, keeping in mind their obligations toward both. As a mediator, the instructor may bring about a better balance between the learner and the institution, at least within a given course or program.

The results of this study present a number of implications for instructional development, which will now be touched upon. Some of those instructors who support the use of the self-directed approach are in need of practical guidelines and training in specific instructional techniques for implementing the approach in the classroom. All of the Study group would probably benefit from some contact with each other. They could, for example, discuss which aspects

of the approach they feel most comfortable with, and which aspects give them the most difficulty. Some of these differences may in fact be related to their gender roles, and increased awareness of this issue could lead to improved practice.

The larger number of faculty in the university reported attitudes that were not supportive of self-directed learning. They, therefore, might benefit from awareness sessions that present information about self-directed learning and adult education. Those instructors who are particularly interested in techniques of teaching might appreciate sessions that provide training in instructional strategies that enhance self-directed learning. Instructors may find that their attitudes toward self-directed learning change as they become familiar with practice that effectively brings it about in the classroom. For all faculty, instructional development that emphasizes goals clarification would probably enhance effectiveness. By explicitly stating goals for teaching and learning, it becomes easier to separate a personal theory of teaching from an approach that has been dictated by "the nature of university education".

If students are to be given greater control over the learning process, there is a need for many of them to improve their capacity for managing their learning. There

is some support in the literature (Nisbet & Shucksmith, 1986) that the competencies that are required are best developed in the very process of learning rather than in separate skills development sessions. However, given the many demands on time in undergraduate courses, and the generic nature of many of the requisite skills, some programs in "learning how to learn" would seem to be in order. For example, guidelines for drawing up a personal plan for learning would be of benefit to many. One should be aware, however, that once students know how to plan their learning they will probably want to do so and might demand more opportunities for self-directed learning.

What are the implications for institutional policies? When higher education is looked at from the perspective of an adult educator, it becomes apparent that policies are called for that put a greater emphasis on the learning needs of the students who are at the center of the educational process. At the same time, given the obligations of higher education, the necessity for certain standards of practice can be appreciated. Some work needs to be done to ensure that the policies that are in place are in fact the most essential and appropriate ones. Policies should be flexible enough to allow students and teachers flexibility in planning and implementing meaningful learning plans while still meeting institutional requirements. It should be pointed out, however, that there is not excessive demand

from either students or faculty to change institutional policies at the present time. Until there is such a demand, policies are likely to remain as they are.

The rich picture of instructional practice that has emerged from this study and enabled the previous conclusions seems to indicate that the research strategy was a successful one. Concepts of learning and instruction in higher education and in adult education have both benefited from an investigation of self-directed learning in a university setting.

It has become clear that teacher beliefs and teacher practice are in fact two sides of the same coin, and that neither can be discussed without reference to the instructional context. Future researchers in this area should note that a survey such as the Orientation Survey used in this study cannot be used in isolation to assess instructional approach. Nor will a true picture emerge from an investigation that looks solely at classroom practice, as it leaves out the important aspect of teacher intentionality.

A concept of instructor support for self-directed learning as mediation between the goals of the learner and the goals of the institution has presented itself that was not anticipated prior to the study. Further investigation

of the validity of this concept is needed. A different approach to the research question would suggest an alternative interpretation of the situation. This could be a study, for example, of a single instructor's different approaches in different classroom situations. This would give a better idea of the effects of class size, student age and capabilities, and group interaction patterns on the teaching strategies used to promote self-directed learning.

The instructors in this study who have tried to implement the self-directed approach in their classrooms, with their students, in their university, remain committed to the approach as a valid one for teaching and learning in higher education. Their experiences, when added to the literature that supports self-directed learning in many other contexts, suggest that more strenuous attempts to promote self-directed learning in higher education are warranted.

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APPENDIX A: Research Protocol

FROM: DAVID DIBATTISTA, CHAIR
      STANDING SUB-COMMITTEE ON RESEARCH WITH HUMAN PARTICIPANTS

TO: PATRICIA CRANTON, FACULTY OF EDUCATION

DATE: MARCH 27, 1990

THE BROCK UNIVERSITY STANDING SUB-COMMITTEE ON RESEARCH WITH HUMAN PARTICIPANTS
HAS CAREFULLY REVIEWED THE FOLLOWING RESEARCH PROPOSAL:

INSTRUCTOR SUPPORT FOR SELF-DIRECTED LEARNING IN HIGHER EDUCATION, BY
WILCOX AND CRANTON.

THE SUB-COMMITTEE HAS CAREFULLY REVIEWED THIS PROPOSAL AND FINDS IT TO CONFORM TO
THE BROCK UNIVERSITY GUIDELINES FOR ETHICAL RESEARCH.

RESEARCH PROTOCOL

1. The purpose of this research is to assess the extent of instructor support for self-directed learning in the university setting. The research questions are:

>Do university instructors want students to plan their own learning?
>>What do instructors say?
>>What is instructional practice?
>>Does the institutional setting reflect instructors' needs/beliefs?

2. The population to be studied is university instructors. The sample includes all full-time faculty at Brock University. The main focus of the research is on a small subgroup of this sample - that is, those faculty who claim to value/encourage student-directed learning.

3. All full-time faculty will be asked to complete an Instructional Orientation Survey. This survey serves as a screening instrument to find the subsample of faculty who are committed to student participation in course planning. This subsample will be asked to complete an Instructional Practice Survey. This same subsample will also be asked to supply copies of written course materials that are relevant to course planning (eg. course outline, exercises, evaluation procedures). A smaller number of this subsample will then be observed in the classroom to gain further information about instructional practice. Full details about the research project - including purpose of research, research questions, and theoretical framework - will be provided when requesting permission for observation of teaching. Participants will be given a copy of the checklist that will be used to record observations. The research proposal will be available to any participant who wishes to see it. Finally, a small number of instructors will be asked for brief structured interviews to get further information about their teaching.

4. Copies of the two surveys to be used are attached.

5. Some of the respondents to the surveys will need to be contacted for subsequent phases of the research project. Their responses must therefore be identifiable. To maintain confidentiality, the survey forms will be coded (respondents are advised of this). The master list of faculty names and codes will be accessible only to the researcher and will be filed separately from the survey responses. The master list will be disposed of personally by the researcher immediately following research completion.

APPENDIX B: Orientation Survey

INSTRUCTIONAL ORIENTATION SURVEY

MARCH, 1990

In what discipline/department do you teach? _____

How long have you taught at the university level? _____ years

At what level* do you teach? _____ undergraduate
_____ graduate

*If you teach at both levels, please check off the level at which you most often teach, and respond to the survey statements with respect to that level.

Directions:

The purpose of this survey is to establish an indication of your orientation towards teaching and learning. A series of statements are provided that may or may not reflect your attitudes about students, the teaching/learning process, and your role as instructor. Please indicate the extent to which you agree or disagree with each statement, using the following scale:

1	2	3	4	5	6
I------------I------------I------------I------------I------------I
Strongly	Disagree	Tend to	Tend to	Agree	Strongly
Disagree		Disagree	Agree		Agree

____1. I have a high regard for my students' abilities.

____2. I allow the course structure to be influenced by students' suggestions.

____3. I try to offer my students a choice of topics to be covered.

____4. I learn from my students.

____5. My primary role is to deliver course content.

____6. I want my students to be actively involved in all class sessions.

____7. I try to foster independent thinking in my students.

____8. I help my students develop personal strategies for learning.

____9. I really appreciate my students' efforts at learning.

____10. I want my students to choose the activities for learning.

____11. The immediate concerns of my students are a priority in my classes.

____12. I set the direction for student learning.

____13. Learning is enhanced when my students actively participate in the learning process.

____14. My students need opportunities to reflect upon what they are learning.

____15. I structure learning around the subject matter to be mastered.

____16. I will abandon my plans if the students want something else.

____17. My role as instructor clearly sets me apart from my students.

____18. I want my students to choose their own learning objectives.

____19. I try to help my students resolve their real-life problems.

____20. I feel it is my responsibility to determine course content.

____21. I like to challenge my students' assumptions.

____22. I want my students to be in control of the learning situation.

____23. I try to provide opportunities for my students to reflect upon their learning.

____24. In evaluating students, it is important that I maintain standards.

____25. My students could be an important learning resource for one another.

____26. I feel I am in the best position to judge student efforts.

____27. I pay attention to the personal meaning that students attach to knowledge.

____28. I advise my students about what they should learn.

____29. I want my students to set the pace for learning.

____30. I try to maintain control of the learning situation as much as possible.

____31. I like to share the course planning process with my students.

____32. Learning suffers when I allow myself to depart substantially from the course outline.

____33. My students need to understand their personal learning style.

____34. I prefer to let course structure emerge as the course progresses.

____35. I want my students to set the criteria for their evaluation.

____36. Problem-solving skills are more useful to my students than knowledge of content.

____37. Course content is best determined in consultation with my students.

****
THANK YOU

Brock University

March 5,1990.

Dear Faculty Member,

The enclosed survey is part of my M.Ed. research project regarding instructor perceptions of some aspects of instruction. Your cooperation in completing this survey would be greatly appreciated.

The intent of the survey is to develop a profile of the instructional orientation of Brock faculty. Please answer as honestly as possible to ensure the accurateness of this profile. Everyone has different styles; there are no right or wrong answers. You will note that your survey has a code. This is a necessary condition, as a number of respondents must be contacted for subsequent phases of the research project. Your responses will be kept in strictest confidence.

All full-time faculty have been asked to complete this survey. A report on research findings will be provided to all respondents and to the Brock Instructional Development Committee at project completion.

Please return the completed survey by March 12 to S.Wilcox, Faculty of Education.

Thank you for your assistance.

Sincerely,

Susan Wilcox

APPENDIX C: Pilot Test Correlation Tables

Orientation Survey: Correlations Between Structure Items

Item No.	2	3	10	16	18	22	29	31	34	35	37
2.	-										
3.	.32	-									
10.	.30	.41	-								
16.	.44	.35	.43	-							
18.	.28	.38	.43	.39	-						
22.	.29	.19	.52	.24	.35	-					
29.	.34	.30	.48	.51	.37	.49	-				
31.	.51	.31	.43	.33	.31	.54	.44	-			
34.	.37	.20	.36	.35	.37	.17	.40	.43	-		
35.	.19	.30	.39	.35	.39	.34	.34	.33	.45	-	
37.	.44	.40	.39	.53	.41	.43	.50	.61	.54	.55	-

Orientation Survey: Correlations Between Climate Items

Item No.	1	4	9	25	27
1.	-				
4.	.44	-			
9.	.20	.23	-		
25.	.33	.27	.15	-	
27.	.42	.35	.49	.38	-

<u>Orientation Survey: Correlations Between Learner Engagement</u>
<u>Items</u>

Item No.	6	11	13	19
6.	-			
11.	.28	-		
13.	.43	.14	-	
19.	.17	.23	.22	-

<u>Orientation Survey: Correlations Between Learner</u>
<u>Competencies Items</u>

Item No.	7	8	21	23	33	36
7.	-					
8.	.31	-				
21.	.21	.15	-			
23.	.41	.34	.13	-		
33.	.42	.35	.22	.33	-	
36.	.15	.16	.11	.08	.19	-

Orientation Survey: Correlations Between Not Self-directed
Items

Item No.	5	12	15	17	20	24	26	28	30	32
5.	-									
12.	.25	-								
15.	.34	.58	-							
17.	.13	.34	.08	-						
20.	.24	.36	.42	.43	-					
24.	.14	.23	.42	.19	.34	-				
26.	.21	.31	.22	.30	.39	.43	-			
28.	.29	.38	.42	.12	.32	.22	.36	-		
30.	.20	.24	.23	.25	.32	.29	.40	.22	-	
32.	.33	.13	.12	.08	.17	.08	.26	.22	.19	-

INSTRUCTIONAL PRACTICE SURVEY

A series of statements are provided that describe some aspects of instructional practice. These statements are specifically related to student participation in the various stages of the instructional planning process.

You are asked to indicate with a check mark ($\checkmark$) any statement that describes **your** approach to instructional planning. If a statement does not describe your practice, leave the response space blank.

Your planning practices may vary, depending upon course level, class size, or other variables. Check off all those statements that describe your **usual** practice. If your approach varies considerably, it may help to keep in mind your preferred teaching situation as you complete the survey.

LEARNER CHARACTERISTICS:

____ I assess what students want/need to know.

____ I determine prior relevant experiences.

____ I ask about expectations for the course.

____ I assess learning style.

____ I assess entrance abilities (knowledge/skills).

____ I consider personality or psychological charecteristics.

____ I review previous academic records.

____ I assess student need for guidance vs need for autonomy.

____ I examine other student characteristics. Please specify _____

____ I suggest that students consider these characteristics when planning their learning.

____ I adjust the course to suit student characteristics.

Comments:_____

_____

_____

_____

COURSE CONTENT:

____ Content is prescribed by departmental/program guidelines.

____ I define content based on my knowledge of student needs.

____ Students adapt content to meet their needs by choosing the seminar/laboratory topics.

____ Students adapt content to meet their needs by choosing their assignment topics.

____ Students adapt content to meet their needs by choosing their reading materials.

____ Content is defined through a process of student-instructor negotiation.

Comments:_____

_____

_____

_____

____ Objectives are not explicitly stated for my courses.

____ I set course objectives before the first class session.

____ I set course objectives after meeting with my class.

____ I hand out course objectives and explain them to students.

____ I hand out course objectives and ask students to suggest changes, additions, deletions.

____ I first ask students for input, then distribute my prepared objectives and modify if necessary.

____ Course objectives are not shared with the students.

____ Course objectives are set by the students with my input.

____ I recommend that students set personal learning objectives.

____ I suggest that students modify course objectives to meet personal learning needs.

____ I suggest that students set additional personal objectives if the group objectives do not meet their needs.

____ If a student's personal objectives do not match course objectives, I recommend they take another course.

Comments:_____

_____

_____

STRUCTURE/SEQUENCE:

____ Students' course-related concerns are addressed at the beginning of each session.

____ Students' concerns are discussed at the end of class sessions.

____ I suggest that students see me personally with course concerns.

____ I set due dates for assignments; students may request changes.

____ Students set due dates for assignments within the guidelines I set.

____ Sequence of instruction is primarily determined by the structure of course content.

____ Sequence of instruction evolves from changing student needs/interests.

____ Students set priorities for topics to be covered; I sequence instruction around these priorities.

____ I expect/allow students to modify learning plans as a course progresses.

____ I encourage students to follow through with their initial plans.

I finalize course plans:
____ by the 1st or 2nd session.
____ by course midpoint.
____ each week!

Comments:_____

_____

_____

INSTRUCTIONAL METHODS:

Please check off those methods of instruction that you normally use:

____ lecture

____ questioning

____ inviting questions

____ class discussion

____ discussion groups

____ group exercises/projects

____ demonstration

____ laboratory experiences

____ independent student projects

____ learning partners

____ peer teaching

____ presentations by students

____ role playing

____ simulations/games

____ drill and practice

____ computerized instruction

____ programmed instruction

____ modularized instruction

____ journal writing

____ other, please specify_____

____ Students select some of the instructional methods.

Comments:_____

_____

_____

_____

EVALUATING LEARNING:

____ Students evaluate some of their own activities and negotiate the grade with me.

____ Students assign the "weights" for the various evaluation activities within a course.

____ Students suggest/design their own evaluation activities.

____ Students select evaluation activities from a list which I provide.

____ Students may work in pairs/groups on evaluation activities.

    ____ They must agree to the same grade.
    ____ They may negotiate for an alternative grading scheme.

____ Students decide who is to evaluate their activities.

Grades are assigned on the basis of:

____ relative value within the class.
(Only a certain # of A's are assigned.)

____ improvement demonstrated in an area.

____ attainment of set objectives.
(Every student who meets objectives is assigned an A.)

____ contracts: the students and I agree to a certain quality and quantity of work for a specific grade.

Comments:_____

_____

_____

_____

EVALUATING INSTRUCTION:

____ Students evaluate the course while it is in progress.

____ Students evaluate the course when it is over.

____ We discuss results of the course evaluation in class.

____ I make changes in the course based on the results of course evaluation.

Comments:_____

_____

_____

_____

Instructor A:

-an Invitational approach

-no difference between approach to teaching and adults.

-teaching is a very personal matter.

-when teaching, one must address three things together artfully: interests of learners, the best available knowledge, the problems of society.

-a "community of inquirers" is what he is aiming for.

-for quality group conversations, structure, surprise, and a subject of worth are needed.

-he is a social philosopher; democratic society needs people who can converse.

-he is on the cutting edge, therefore he has an obligation to present these ideas that he knows of through reading etc.. He wants learners to benefit from his knowledge.

-substance is important. Instructor needs to present ideas in insightful ways.

-undergraduate students are institutionalized - the milieu they are in urges them to compete with one another. He tried using contracts etc. with undergraduates and found they were confused.

-we need to move towards a system that treats them as if they are adults.

-he encourages student <u>responsibility</u> through contracts and choosing their own assignments.

-the teacher must challenge. Learning is painful: threatening and challenging. There is a human tendency to want to be comfortable. We must work against this tendency.

-"Teaching is the gentle art of raising dissonance."

-it is important for the instructor to avoid inefficiency in group learning.

-he is a professor therefore he professes: this is where I stand, but I'm open to change. He brings tools to the classroom. He wants to give his best thoughts. The learners, in turn, must be involved.

-he needs to be himself in teaching. This is <u>his</u> approach. He tries to provide a picture of "intelligence in action'; a

model of a way to think and act.

-his previous experience of "adult education" was not positive. He feels that the principles of adult education encourage instructors to abdicate their responsibilities.

****
****
Instructor B:

-a normal lecture for him is an exposition interspersed with student activity, questions and answers, small projects and group work.

-seminars are student-led. He grades. He is silent and assessing.

-three things that mark his teaching as different from that of other university instructors are:
    1. he moves around the classroom a lot,
    2. small group work is common - why?
                    -gives students a chance to <u>do</u>
                    -social aspect
                    -a break in class routine
                    -keeps students awake.
    3. roleplaying.

-in social science, the being and acting relationship is called into question therefore role-playing and drama are particularly appropriate formats for learning. They are concerned with the doing/being interface.

-he is happy to make a fool of himself in the classroom because in the end he knows he is not.

-playfulness is important - we are all kids.

-what he wants to achieve is a sense of scope and possibility, within parameters of safety. This is another reason why drama is so useful.

-he is careful to never tease, to never be sarcastic. He is concerned about personal feelings and strong sensitivities. He believes it is possible to be yourself in teaching and to be sensitive at the same time. He tries hard to bring a sense of humour to the classroom to encourage a good atmosphere, but is very conscious of ethnic and sexual sensibilities.

-the social aspect of classroom teaching intrigues him.

****
****

Instructor C:

-she is very conscious of a series of constraints that restrict the possibilities for SDL in the university classroom:

> -students <u>can't</u> ie don't know how to, negotiate marks.
>
> -students aren't prepared to plan their own learning - do they lack the MATURITY?
>
> -the chair signs course outlines before the first day of classes.
>
> -colleagues complain about her flexibility - she has smaller classes and next to her they look like ogres (there are 120 students in all core classes).
>
> -I treat everyone as individuals; it is the philosophy of the university to treat everyone as equal - this conflict leads to conflicting expectations of students.
>
> -marks crunching by students in order to assure that they get into the College of Ed.. Grading is therefore a severe problem.
>
> -nobody over there in Administration cares about the student and the best kind of learning - "I do."
>
> -restrictions imposed by the Grade Review Board.
>
> -course sharing with colleagues is a problem. For example her colleagues do not want to be reading journals for the large classes, although she doesn't mind and would prefer that students had this option.

Because her approach is the more unusual one it seems that they fall back on more conventional, less controversial approaches in shared classes just as a matter of course.

> -she wants to feel that she has the students' support (but often feels that she doesn't because they do not want the responsibility); she doesn't care so much about the collegial support.

-instructors in physical education know students' bodies. "We can and do touch." This provides instructors with lots of feedback concerning the present level of student ability. Women instructors do the practical stuff; men do the lecturing. She feels that the male instructors are therefore less likely to be in tune with their students. But she notes that many students are drawn to the most structured courses eg. anatomy because it is simple - they know what is

expected of them and less real involvement is called for.

-people are central to education. The system should reflect that.

-SDL in the classroom "is a hell of a lot more work. Acknowledge this please."

****
****
Instructor D:

-he offers to let me speak to his students about the course but warns me that responses may not be positive.

-we discuss peer evaluation and self evaluation because that's what he does that is "different", in his eyes.

-he shows me a letter from Senate Sub-committee on Grading that asks him to explain the large number of B's in his third year seminar class. He feels they should be questioning why a third year student would have a C. He expects a third year student to do well - if they didn't, that would indicate a problem with the program. He feels he has the support of the department.

-part of the reason his handouts and forms are so structured is that he must gear everything towards handing in a mark.

-there is more desire for flexibility than is evident in his course outlines and handouts. Why? He thinks of these course materials as written confirmations that he is doing his job; also he feels that they are necessary because he is inexperienced (this is his third year teaching) - they help him structure learning. He would like to be able to do without them.

-he uses peer evaluation because he had extensive positive experience with it as a graduate student. Some students in his classes hate it. Others (most) find it a lot of work but feel it is worthwhile. He tries to discuss the use of peer evaluation thoroughly at course outset to ease student fears.

-he allows students the option of self-evaluation. Some abuse it ie. they'll give themselves 100%, but he allows the mark to stand - he figures it's on their conscience, not his.

-student evaluation of his course: he prepares his own evaluation forms so that he gets answers to the questions he is interested in.

-he feels university evaluation standards are based on disciplines where there is little discussion/argument about what the "correct" answer is eg. mathematics and pure sciences. Other disciplines are asked to conform to their standards despite the fact that there is a lot of room for different answers in these other disciplines.

-he hopes to get better at teaching but he does not plan on accomadating to the pressures from university administration. He hopes to find ways to make the system suit the needs of his discipline and his students.

****
****
Instructor E:

-sees his role as helping more students towards an adult approach.

-peer evaluation used in the fourth year; an uncomfortable process.

-he is criticised by students for his free-flow approach.

-students don't want to take responsibility for their own learning.

-courses aren't required at 3rd and 4th year - this makes a difference in the approach he can take.

-that's what university is all about: taking responsibility for onesself.

-his role is to make them responsible and to make learning fun; he is preparing them for work and life.

-in the university memory learning is often confused with academic rigour.

-I can be dictatorial - a benevolent despot.

-there is always a final exam; it forces them to pull it together; an exam should be a good learning experience.

-human nature requires some discipline.

-he is not an entertainer or motivator - this is not his role or his responsibility.

-must initiate students to the notion of self-responsibility in learning gradually - there is resistance. They do grow more comfortable as courses progress.

-structure is required; he is aware of the principles of SDL, but believes that it often doesn't work in practice. The instructor must make it work. To start where the students are at is important.

****
****
Instructor F:

-struggle at the beginning, cook in the middle, imposed restrictions at the end.

-students have a higher expectation of women instructors.

-women must work harder to establish themselves in the classroom as an authority; this affects the approach you take to teaching.

-she has given a lot of thought to teaching this year; she has been diverted to research and committee work in the past; wants to refocus on teaching.

-she likes lectures, but seminars are a challenge.

-in seminars, she wants to give responsibility to students but - they are not up to it. Instructor must be prepared to live with disasters when students don't take responsibility. "We are trained to pick up the pieces" (as teachers and as women).

-we need a conscious way of developing responsibility....modeling?

****
****
Instructor G:

-there has to be a bond - TRUST.

-if you are going to use a different approach, then you must share it with students. You owe it to your group to explain the three P's: purpose, procedures, product.

-learning is an ACTIVE PROCESS, including "head active".

-whole persons must be effective. The personal comes first, the curriculum second.

-it's important to feel the changes that are occuring.

-instructor is on review (by students). They will check you out because you have declared yourself as diggerent.

-he calls it an experience, not a course.

-COMMITMENT is essential on part of both students and teachers.

-he is most frustrated and least effective in the lecture mode.

-he is modeling and coaching.

-personal meaning is essential.

-instructor must be consistent - the students will check out procedures, esp. evaluation procedures. If there is dissonance between what you profess to believe and what you do, the students pick up on it.

-if there is a regulation that he and students must live by (university rule) then he will declare it.

-"You can't teach anybody anything. Learning IS self-directed."

-instructor must be confident in the approach; there will be a cycle.

-NUMBERS kill you - you can only dispense, there is no interaction, a few vocal people dominate. He feels he can be effective with up to 50 people. Brock is insistent about providing the 20 and less seminar numbers, which is good.

"I hate marks. It is the most anxious time. Judging someone too harshly is always a risk."

-he is annoyed and frustrated at the institutional constraints that surround marking. Especially at the undergraduate level, marks impose undue restrictions.

****
****
Instructor H:

-his goal is to confuse people. Solutions are tentative.
Students learn how complicated things are.
The process of learning is the thing that matters in a class.

-lots of reading. He plays the timing by ear. He can't cover everything.

-he provides a list of seminar topics. Students choose (as a group) which topics will be done by their class. Different seminar classes end up covering different topics ie. each class will not cover all topics. If a student is interested in a topic not being done in his class, he can attend the other class for that session.

-"the process is unnerving for a lot of students, but I'm laid back about it all."

-"I tell them that no amount of reading is enough." In other words, I expect them to be on top of it all, but know that they won't be. He wants them to know that he has high expectations, but will be accepting of their best efforts.

-sometimes students focus on specific topics; sometimes they take a very general approach. "I anticipate all sorts of different approaches, performances."

-when grading, he tries to base it on individual capacities, and recognizes that students have different levels of interest/commitment to history.

-students often feel off-based. This is not a course about certainty. "I find that students create their own 'lifeboats' of security within a course."

-he provides a sense of what students can do and students will build the structure for themselves. If he provides the structure they learn only the structure. Some student structures are more extensive and useful than others and this affects the quality of their learning of history. However they <u>must</u> at some point learn how to structure learning themselves.

-at lower levels ie first and second year courses, he provides more structure and less 'pulling of rugs'. The upper level students can withstand more. "I play to the group."

-when he must lecture due to class size, he asks students to read an article before class. He then approaches it from a completely different angle. He is modeling for them how he wants them to think.

-he teaches at all levels and feels this is a necessity for him. If he only taught a first year class, at the end of the first year he would feel disappointed. There is a fairly high drop-out rate, and 'it doesn't work'. They haven't learned yet how to think as he'd like. But the students who do stay give the course a very positive evaluation.

-he speaks of a sense of <u>disappointment</u> that the students don't push themselves harder. Is it the way they've been taught before - with freedom, but without the sense that they have to do something? Is there something from the old school of teaching that they are missing? But what can HE do?

-he feels that his definition of education is radically different from that of his colleagues. His students learn

what thinking is about. His is only one person's notion of what education can be. He thinks it has value.

-he believes that a class can be run as if the students were self-directed learners, even though they often are not. It gives the students a glimpse of what real education can be like. Freedom and excitement are the key words for him.

-he doesn't worry about whether students are happy. He couldn't. He gives them explicit permission at course outset to leave the course if it does not suit them. This is how he resists severe criticism and unhappiness.

-he has a gift for remembering facts and at first tried the 'regurgitation' method of education. But he likes people and felt that he wasn't connecting, wasn't leaving something of himself. He still has to resist the termptation to overwhelm students with facts.

-only 1 out of 300 students that he teaches will become an historian, therefore he must teach them something of use ie.process, a way of thinking.

-he teaches this way because it's the <u>right</u> way (for him). Students must be exposed to it no matter what.

-he is inspired to teach this way by memories of a radical approach to teaching that he was exposed to as an elementary school student; student directed, with student responsibility.

****
****
Instructor I:

-he goes in with books and no objectives.

-themes only are touched upon.

-he asks students only about the books they have read and does not expect students to read all the books.

-students <u>must</u> write an essay on one work and give a presentation on another. For the exam (no option here) they are responsible for six works which they may select from an extensive list that he provides. They are asked to trace themes using their selected books.

-one question always on his exams is: "which books have given you a chance to reflect on your own existence and why?"

-he wants students to take charge of learning. Learning as a community is important - the concept of the one room

schoolhouse guides him. Here students of different levels of interest and capabilities learn from one another and in the company of one another.

-it is important that in universities we do not deprive students of fully participating.

-dialogue is what he is aiming for.

-he doesn't care what they write an essay on as long as it's useful to the student and has something to do with the course.

-no deadlines and no penalties.
****
****
Instructor J:

-one of the biggest difficulties is getting students to ask questions.

-each student takes learning skills test before starting classes. He then asks them how they want to develop in terms of broadening their approach to learning. He gives them a week to think about it; they then come back with the beginnings of a plan for learning.

-students write essays based on their own objectives.

-students do research plan based on the part of the learning style profile they wish to develop.

-work goes back ungraded, but with queries.

- he asks them to grade their own, and he translates the summation of grades into a mark when the course is completed.

-"I want the power for development to be in their hands."

****
****
Instructor K:

-there is something wrong with the system: where is the motivation in undergraduate students that _is_ seen in adults and young children?

-a wonderful learning experience when dealing with adult learners and all truly motivated students.

-there are just enough students who do want to learn this way to keep you going.

-the system would never endure a change to self-directed
learning.

-suggests that most students would benefit by some time in
the working world before beginning their university
education.

* *
* *

Instructor 1:

-students at the lower levels don't have enough background in the subject area, enough understanding of content, to be able to set the direction for their learning.

-in fourth year courses he allows them to set the direction, but it is essential that first of all a common background is set.

-he does pay a great deal of attention to the course evaluations completed by students at course completion. Over the years he has adapted his methods of teaching so that he can meet as many of the students' expressed needs as possible.

-he tries to reach a concensus among students about the best approach to take. Because he has been doing this for so many years now he likes to think that his course set-up is one that suits both him and the majority of his students. Why, I ask, does he aim for consensus? It is easier to manage, what with the number of students he teaches and the university requirements that must be met. Also, it works: students know what to expect; there is minimum disagreement about requirements. For example, his marking scheme has been adapted over time so that most students seem happy with it. If he doesn't set a marking scheme, everyone wants a different way. A consensus is unlikely to be reached, and this is distracting and confusing. The only part of the marking scheme that students still complain about that he is not going to change is the percentage given to the final exam. (The students want it to be worth less than it is.) But he believes in the value of group work because of his past experiences with it. Because they do so much group work in his classes, the only piece of work that is truly theirs is the final exam. He wants the final mark to reflect the individual's work.

-he asks the students for ideas about what they should cover at the first class session. He finds that they usually ask about things that are actually examples of principles that he wants to cover. He shows the students how these topics fit into the course structure that he has set up so that they know when they will be covered.

-he learns about teaching from teaching.

-his aim in teaching is for students to feel good about themselves. He wants to turn someone on to the subject of geography, he wants them to enjoy it. Success = first, 100% of students would report that the course was interesting and that they learned a lot about geography, and second, every student would get an A (because this makes them both feel successful). By providing structure, students know what is

happening and are able to free their attention for full class participation.The kind of approach that he uses is what turned him on to geography in the first place.

-the role of the student is to question, to really think about things, to wonder why a certain approach is usually taken, and to help fellow students.

-<u>respect</u> is an essential aspect of his approach. He feels that many students work hard for him because they respect him and sense that they have his respect. His goal has always been to treat each student with dignity. Sarcasm is out in his classes, no matter how he is tempted. He asks all students to call him professor, Dr. or Mr. Thomson in class for two reasons: first, he will be grading them and this serves as a reminder of that difference in their roles, and second, not all students will feel equally comfortable with calling him by his first name. He wants to avoid the situation wherein it may appear that all students are not on equal ground with him.

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Instructor 2:

-SDL learning is not possible/appropriate because <u>we know</u> what they need. Material must be covered that they don't like..."Eat your spinach." Prescription is necessary.

-university instructors in the sciences are handicapped because the "adult ed." (person-centered?) approach has been used at earlier stages of learning and the students don't know what they need to know.

-the department of chemistry is in the midst of some soul-searching right now because they are not attracting students in the numbers that they should be. They are looking at the approach they use and wondering what about it is not appealing to students.

-it is difficult to change the curriculum because everyone has a different idea about what needs to be taught. Also, it requires a great deal of stamina to change curriculum. It is so much work to properly set up a course in terms of sequential knowledge that one is loathe to change it unless absolutely necessary.

-some students will do it (ie. be self-directing); some will search beyond what is covered in the basic classes, but it is certainly not the rule. They don't <u>want</u> to do it. If students were functioning at a certain level (eg. honours students), letting students choose areas to be covered might work, but they must have basic competencies first.

-the sciences are fairly hierarchical; a good deal of time must be spent building the foundation. Students are not prepared for sequential subjects in our school system. Once the basics are there, some flexibility can be built in, but even in the upper years and graduate courses, he finds that students still need significant direction from instructors.

-Accreditation by the Chemical Institute is also a problem; certain things must be covered prior to graduation. It is true that there are many different ways of reaching competency - who can say which is best. Ideally, students should be very flexible when done (he means flexibility in terms of being able to adapt to different work environments and job demands). They must be able to do what employers need them for or they will not be hired at all.

-they are trying to be as process-oriented as possible, but students do need basic concepts first.

-training is very hands-on; they want things to work for the students. The most important thing is for first year students to have a sense of accomplishment, so that they will want to continue.

-they are aiming for a sense of mastery; it is important not to squash them; if there is too much material, the sense of mastery is lost, therefore it is important not to go too fast and to aim for too much.

-there are analogies to coaching in teaching the sciences: drill and practice.

-he feels that many of the problems they face in trying to teach the sciences in university can be traced to the kind of science instruction the students receive earlier: eg. sciences are taught too late, there is no emphasis on the basics, and the "science fair" approach is taken to extremes. Students have a strange idea of what science is all about.

-there is room to manouver only with respect to mood, atmosphere, quantity of material, labs. There is a limit to how democratic the approach to teaching can be. It is important to be sensitive to students' needs BUT....

-many students are not interested in abstract ideas. Abstract ideas are good for people. Therefore the iron fist must be applied. "All people are not like us with an innate interest in ideas."

-he sees child-centered education and discipline-centered education as being at opposite ends of a continuum, with discipline-centered education as the ideal at the advanced levels. He feels there must be a break between the two

approaches somewhere in between the 4th and 10th grades which is not currently being done.

-university should be a milieu where students are able to mature so that they are able to think for themselves. He is sorry that it is necessary to throw so many courses and requirements at them, but unfortunately this is a necessity in the current situation. For freedom to be possible at university, students need background knowledge and work habits earlier.

-constraints on both sides: poor preparation given to students prior to university, and demands of the profession at the end.

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Instructor 3:

-approach is different in graduate and preservice: in graduate courses 8 hours out of 36 is lecture and the rest is case study analysis followed by student presentations on topics of their choice; in preservice where the focus is on professional training there is only 15 hours to cover the material that the students <u>must</u> learn.

-in other words the approach depends on the context.

-a culminating test is important as it is a measure of whether students can integrate knowledge gained.

-the professional competency issue is of key importance - there are incredible constraints on time when one considers that the students must be out teaching shortly and must have basic information in order to do so professionally.

-he's not going to take responsibility for what the students do after the course as professional teachers - he has fulfilled his own professional obligations in covering in an organized manner the basic material the student-teachers need.

-testing is of value because it "forces" students to read the text; he has noted that graduate students often don't read the readings because they know that they won't be tested on them.

-adults are not necessarily responsible. It is important for him to feel that he has filled his professional responsibility whether or not the students want to learn.

-resentment about testing is absurd; in answering questions the student discovers what has been learned.

-class interaction is important, as well as class attendence.

-he questions: what is adult ed.? (do adults learn better or learn differently?) what is a university diploma? He is unclear as to whether the two notions are compatible. University graduates must be able to DO certain things at the end of their courses and the university must have a way of knowing whether the required learning has in fact taken place.

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Comments on Instructional Orientation Survey:

Level:

* This is a question only applicable to Coll. of Ed. In
sciences we teach all the time at both levels - you don't
understand the university environment if you ask this
question this way.

* I doubt if Brock has anyone who teaches primarily at the
graduate level. However, graduate courses are a significant
fraction of my teaching.

Statements:

1. * some/some not
    * some yes, some no
    * depends on course and level
    * from 1 to 6 depending on the class (students'
      abilities cover a huge range.)
    * ie. those who have them and use them
    * I have to find out about their abilities
    * can't answer this. Do you mean now or their potential?
    * depends which students
2. * ie. if an approach does not work, I try not to repeat
      it
    * a course has its own outline and no suggestion can
      alter that
    * more so at upper level than lower
    * a posteriori
    * after, for next
3. * only in essay/seminar topics where this is appropriate
    * especially at upper levels - nothing to do with grad.
      vs. undergrad. - Again, a Coll. of Ed. perception
    * more so at upper level than lower
    * depends on course
    * but not material
    * in essays and seminars, not in lectures
    * within each section
    * in essays
4. * of course; it is a condition of being alive in one's
      work
    * although what I learn might be difficult to specify
    * more so at upper level than lower
5. * this turns on a skills/content discussion which I
      don't find meaningful.
    * what the "course content" is comprises the complexity
      of the primary role
    * a poor statement to ask a real teacher to answer (1)
    * as opposed to what?
6. * in seminars
    * depends what you mean by actively involved. Sometimes
      one simply has to get info across. Sometimes one wants

discussion.
* as learners
7. * in the end, this is <u>the</u> objective for me
8. * depends on class size whether possible. Not if you
   have 100+
   * if this means helping sort out ways of overcoming
   difficulties, yes; if not, what does it mean?
   * not sure what this means
   * no, I would like to know how to do this, however
9. * for most of my students. Many of my first year
   students still have feckless attitudes.
   * depends on level
   * check meaning of "appreciate".
   * <u>efforts</u> - meaning ??
   * if their efforts are admirable
   * <u>appreciate</u> ???
   * ambiguous - when they do make efforts, or in general?
10. * depends on level
   * not clear
   * unclear what the intent of this question
   * depends on interpretation - within what limits?
   * don't know what you mean by activities
   * I'm not sure I understand what you mean
   * not clear - several meanings
   * N/A ?
   * <u>activities</u> - not clear
   * within limits
   * yes, from a list compiled by the instructor!
   * a silly question/statement. How can they if they don't
   know what activities there are?
   * <u>activities</u> - meaning?
   * unclear
11. * <u>concerns</u> - personal/academic?
   * assuming you mean their difficulties and concerns with
   the material
   * depends what they are
   * if academic; "concerns" means what?
   * <u>concerns</u>: academic? social? too vague
   * then why are they paying fees to learn?
   * <u>immediate</u> - definition?
   * if relevant to course goals
12. * I shape the course; they learn different things. So
   what do I "set the direction" to?
   * more so at lower level than upper level
   * content yes, type no
   * don't understand the statement
13. * passive "participation" is <u>not</u> "participation". You
   can distinguish active/passive learning perhaps, but
   not active/passive "participation".
   * <u>actively participate</u> as thinkers
   * dare I say it, this is almost a tautology!
   * there is likely to be little disagreement here. The
   issue is how to bring this about with many
constraints.

       * ambiguous question, also motherhood statement
14. * of course!
15. * not really meaningful
       * ambiguous question
       * to extent possible
       * ambiguous – do you mean <u>structure</u>, or match learning
         with material (whether or not "content" oriented)?
       * <u>structure learning</u> – actually, I <u>can't</u> structure
         learning
       * "mastered" is kinda gone, what with gender issues,
         isn't it?
       * only partially; subject matter is only one of several
         cornerstones of curriculum development
16. * <u>want</u> – if they <u>needed</u> something else I would
       * depends on the level
       * depends
       * depends on why they "want something else".
       * depends
       * which plans?
       * depends on the "something else"
       * too vague
       * somewhat vague – true in many areas, but not all
17. * as a classroom participant no but as a grader/marker
         yes
       * in <u>effect</u> at this stage; but the aim is to have them
         see that one is, at best, at a later phase of a
         continuous process.
       * probably my age does more
       * at what level: socially? intellectually?
       * <u>sets me apart</u> – ???
18. * above and beyond what I have identified
       * <u>learning objectives</u> ? unclear
       * ???
       * cooperative
       * given that they are in a <u>specific</u> course no;
         generally, yes
       * why are they in my class then?
       * depends on the level
       * ???
       * such as university regulations allow
       * <u>learning objectives</u> – not applicable diction for all
         depts. I should think
       * is this not inevitable?
       * I am not clear about the meaning of "objectives"
19. * when asked or when such problems appear appropriate
         for me to become involved in
       * related to area, (<u>not</u> personal problems)
       * which means they can't always have the choice they
         want.
       * only when/if solicited – and then carefully
       * related to studies?
       * did you mean non-academic? It really depends on the
         problem
       * if asked to – yes

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         * if they take the initiative to seek advice
20.  * yes, not theirs, not the deans, not the parents
     * you have the final responsibility - poorly worded
     * in consultation with colleagues in the program!
     * cooperative
     * as opposed to ? the students or the department?
     * with my input
21.  * in written examination? verbally? out of class?
22.  * learning situation ?
     * own learning yes, classroom no, seminar in part
     * not clear what this means in practical terms
     * too vague to be intelligible
     * of their own
     * doesn't mean anything very clear or specific - the
       learning situation? They cannot not be in control of
       their own learning.
     * of their own, not the class
     * control of the learning situation: too vague to answer
       - materials? pace? activities? assessment? all of
       them?
     * learning - they are. But the teacher controls the
       teaching. They are not in control of what I learn.
     * control - ???
     * their or the?
23.  * not meaningful - such opportunities can occur out of
       class
     * ???
     * probably not enough
     * reflect upon - ???
24.  * since we are vetted by outside professional bodies for
       accreditation we must teach certain things to certain
       standards.
     * if I can't, I am incompetent
25.  * especially when there's a mixture of ages and gender.
     * and usually are!
     * they are
26.  * compared with whom? colleagues/students
     * someone more competent than I might be in a better
       position
     * efforts
     * efforts - if this means results.
     * meaning? alternative?
     * compared with what?
     * as opposed to students? the department?
     * I like their input here
     * no, they are - on the whole
     * as opposed to?
     * compared to whom? other students? the chairman?
     * relative to whom? The relationship between effort,
       ability, and extraneous circumstances is not always
       clear even to the student
27.  * vague
     * not very clear
     * no, I'm completely insensitive
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        * not sure what this means
        * I think perhaps I understant this, but "knowledge" is
          very limiting
        * I don't know what this means
28.  * course content?
        * content like factual data no, how to structure
          arguments and problems yes
        * I do not tell them what they should not learn
        * specifically? in general?
        * advise ???
        * by a responsible course outline?
        * more about how they should learn
29.  * impossible in real world
        * not meaningful within system
        * but we don't facilitate this in my discipline
        * self-pacing works only with the "A" students
        * to set the pace - vague
        * if reasonable
        * pace for learning: problem again - I'm not sure what
          this means
30.  * learning - not possible
        * control - in the broad sense of the term (5)
        * through the presentation of specific material I can
          direct learning potential but how can I control it ?
        * depends if it is lecture or seminar and the nature of
          the material being covered
        * "the learning situation" - ???
31.  * I look at course evaluation comments but do not take
          other steps to include them in planning process
        * depends on level
        * most are gone during the summer
        * positive and negative aspects of the course discussed
          a posteriori
        * does "like to" = "think it is best"?
        * in week one only. Once it is sent to the Registrar's
          office it is final
        * ie. by way of student evaluations
        * not sure I understand
        * for evaluation only
        * by providing rationale - course is usually planned
          ahead
        * N.A.
32.  * they learn different things
        * over what time period? -if 4 months, of course; if 1
          lecture, then of course not!
        * substantially
        * depends on what they are learning
        * since other courses taught may depend on my covering
          certain topics
        * students protest
        * if frequent. Sometimes it aids learning
        * depart substantially - I've never done this
33.  * personal learning style ?
        * ???
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* ???
* means what?
* what on earth does this mean?
* ???

34. * depends on level
   * the university controls this
   * the superstructure is preset, the fine structure emerges
35. * university rules re grading
   * for as long as they are "students" (ie. in a power relationship with me) this would, I fear, be "cruel and unusual punishment."
   * I _do_ use peer evaluation quite extensively
   * not preservice
36. * need both in science
   * about equal value
   * they are not separable - they have to be able to use skills learned
   * there is more than this
   * both are interdependent - one may not be elevated at the expense of another
   * inapplicable
   * this is often taught as part of course content
   * yes, but my discipline is stuck in content
   * problem-solving and knowledge of content are complimentary.
37. * don't know how to answer - I read course critiques carefully and do make some changes based on those
   * difficult to do in reality
   * particularly senior courses
   * through post-course surveys
   * depends on level
   * only after the course is presented. Suggestions for changes in the next presentation are considered so that the course can be modified
   * _consultation_ no, evolutionary discussions yes
   * I believe this depends on nature of course

General comments:

* Studio courses have a different structure and teaching strategy than academic ones. Is this factor being considered? ie. subject matter, course content makes a big difference.

* Is your choice of stratification - graduate, undergraduate - sufficiently detailed to provide meaningful statistics? Unlike K-OAC you do not have fairly even class sizes. Would you expect a professor's orientation towards teaching to change from a class of 20 to a class of 200?

* Many of these questions do not address my "philosophy" of education, so your results will not accurately reflect my approach to knowledge and learning.

* If I was evaluating this questionnaire - if it were
prepared as a project for me - it would rank as a C-. This
questionnaire does not fit a university environment with
prerequisites and teaching over Year I, II, III, IV, and
M.Sc.

* Many of your terms and distinctions are practically quite
meaningless within a structure and system in which the
achievement of standards is a fundamental <u>given</u> of the
system. Your questions, moreover, are reductive and yet
vague, not fitting the critical learning/teaching
experience. Learning is always private, but teaching is
public - and one can teach both more and less than one
knows.

* I found it surprising how "unbalanced" the questionnaire
is in favor of the very teaching style I prefer. It is my
perception that most people would be much less sympathetic
to the "dialogical" and "encounter" mode of teaching to
which I am committed.

* These are very thought-provoking questions. I hope that
you follow up on this with some interviews. These issues are
difficult to respond to in an either/or manner. Thank you
for the questions and contact me again if you wish.

* On an environmental note: please recycle these completed
questionnaires when you're done!

* Forms like this are frustrating, as the same question
tends to get asked several times in a number of ways, yet
the language used each time tends to alter the question
somewhat. (One <u>feels</u> inconsistent, though the <u>questions</u> are
the inconsistent things!) Also, your language doesn't always
cross disciplinary boundaries well: in my discipline it is
less a matter of "subject matter" to be "mastered" than of a
"process" to be "learned/developed" within the student, and
different students will develop different processes that
succeed with the same material. I suspect that all
interpretive disciplines will have trouble with the mastery
orientation of some of the questions on this questionnaire.
As for my perception of my methods, I think that I should
(and do) set the curriculum for the course, and so "direct"
it. I am apart from the students in that responsibility -
which <u>must</u> be undertaken in advance of their arrival in the
class (given text-ordering, and so on). But I will alter a
curriculum, where possible, on basis of student input, and I
expect that a <u>group</u> will devise 1. its own way of dealing
with the material and 2. its own preferences for my
role/style/function within this group. Occasionally I will
permit (even suggest that) a student separate from the group
and do individual work if the assigned group's style doesn't
meet that student's needs or challenge him/her. But overall
I guide the group and probably shape it more than I think I

do. So I see myself as less than autocratic, but would not want to appear to be passing myself off as supremely and virtuously democratic either: somewhere inbetween!

* It is very difficult to reply to this survey because "students" are <u>not</u> a homogeneous body, as the wording here implies!

* This survey is difficult to answer in that a lecture/seminar course can – and many do – have very different direction and priorities; for instance I structure "learning" in the lectures, the students structure "learning" in the seminars.

* Many questions are ambiguous or not clearly understandable: suggest change.

* Remark: There is a lot of jargon here which I can't pretend to understand. This accounts for the numerous "?" responses.

* This is a bit of a blunt instrument, isn't it?

* My responses may appear very conservative, even reactionary. BUT the course I present is fundamentally <u>determined</u> by its content and the content itself has an essential <u>structure</u>, a struture I feel the students cannot anticipate nor appreciate without the knowledge (facts) the course itself provides.

* My orientation towards teaching/learning is very much conditioned by the level (yrs 1-4 undergraduate, graduate, research supervision) of teaching and number of students taught. I think of education as a maturing process and consider that what may be important in year 1 may well be no longer relevant by years 3-4, for at least many of the students.

* Sorry about the (?) – the difficulty for me is lack of my understanding about the meaning of certain phrases in some questions; further, the response choice in the continuum could very much be a function of <u>year</u> and <u>size</u> of class; an honours course with 3 senior students is handled very differently from a first year course with 650 students. I would hope your eventual analysis takes this important difference into account; certainly, you ought to.

Comments from those who sent back survey uncompleted:

* I have one primary concern with your survey. Although it is an <u>important</u> effort and I think might offer some useful conclusions, your findings will be problematic if you do not distinguish "size of class". Some of us are teaching class sizes of over 200 students - with some of the questions you posed ie student involvement the numbers predispose barriers in this regard. Therefore, number of years teaching may or may not be correlated with teaching style. Size of class may or may not be correlated with teaching style - the problem is that you have missed this important indicator inh your analysis. Subsequently, although I would be happy to respond I would potentially respond differently if I was refering to my smaller class than my larger class. I hope you might correct this and try again! There may be other factors also - gender, for example. I wish you the best and hope your survey goes well.

* I am sorry, but I cannot complete this questionnaire! I started to do so but found most of the questions to lack sufficient precision to allow me to respond meaningfully.

* I think, <u>too many questions</u> and too close to each other. Often the answer varies with the situation - year I or year IV, the bright and the weak students.

* I have difficulties with the structure of this. There are better and ( ) ways of doing it.

* Following discussion with a number of colleagues, I have come to the conclusion that I am unable to assist you with this project. In company with most of those consulted, I feel that the nature of the questions posed is such that they have relatively little bearing on the manner in which the discipline and rigor of contemporary mathematics and science must be conveyed to students at the university level. Consequently, any answers which might be given to them would almost certainly be open to misinterpretation.

LEARNER CHARACTERISTICS:

* Another important aspect is trying to determine students' comfort level in presentations and group dynamics.

* In large survey courses, my course outline reflects what I have learned about previous students' preparation, interests, and ability levels. In upper level seminar courses, I make it clear that the course structure and goals may not fit all students' needs and interests; my courses tend to be very open-ended.

* This (assessment of learning style) is very informal and based on experience - no formal tests are used.
* In our practical courses, you do this (assessment of entrance abilities) through observation.
* I examine other student characteristics: You determine if they can work alone, if they need extra encouragement, confidence building, if they need to be stretched.
* Sometimes you try to help students see their own strengths.
* In tutorial courses and practical courses for us this (adjusting course to suit student characteristics) is a must - in practical courses you would literally injure people if you did not adjust the challenges.

* Often I am trying to perceive this student as part of his or her study group (eg. seminar) and trying to figure out what strategies/organizational patterns will encourage this kind of student to work within this kind of group (eg. shy student within gregarious group; very talented student in rather mundane group).

* I assess learning style in 5P07, which uses learning style as a basis for decision-making.
* The degree to which the above characteristics are employed is determined somewhat by the focus of the course. If the course is largely an awareness-knowledge experience (eg. outdoor ed.) then interest, entry level, expectations are very important. In the law course, circumstances do not permit the extent of 'personalizing', but the course (   ) developed 'out of expressed' student needs. The 505/6 course is based on 'personal firsts' and therefore requires full consideration of the above characteristics.

* Professional interests are also examined.
* Many of these things are done informally. They are done usually in a general way for the whole group.

* To be fair to you my 'assessment' is not yet standardized - it is casual, question answer, interactive. BUT, I do it in every class.
* I am leaning more and more toward small group/interactive/experiential exercises and decreasing straight lectures - this adjustment allows students to work on a more individualized basis than note taking and passive listening.

* I discuss learning styles with students and encourage them to develop/enhance their learning styles.

* The scope of my responsibilities prohibits the kind of detailed individual attention I would like to give. What I attempt is to construct courses in such a way that individual students can, if they wish, negotiate their own individual paths. I am available to them in a tutorial setting to offer support for such enterprises.

* If students are interested/involved in focusing on one specific area, I allow/encourage them to do so.

COURSE CONTENT:

* By reading material is meant additional specific material related to the content chosen by the students.

* The elective and smaller classes plus the tutorials are great for student input and trying to make the course useful for their particular needs. The large 100+ classes can't enjoy that freedom. One of the things that really annoys me is having to say in the first term what and how I will grade the second term courses – that regulation restricts the instructor and limits meeting needs. You always are working from behind.

* I try to set out non-specific essay and seminar topics so that students will be able to (must!) narrow/define the topic for themselves as they work with the material. They find this HARD – often would prefer to be told what to write on or what to set as seminar task. I think that they think about the material much more when they have to wrestle with it in this way. And they develop a personal stake in the class' success as they are responsible for a lot of what happens.

* Limited freedom to choose course content within reasonable bounds; I often scan/collate/reorganize tables of contents of relevant texts or reference books to assess comprehensiveness of my course coverage and to ensure some degree of similarity to courses offered elsewhere.

* Again the course dictates the degree of student involvement in deciding such things as reading sources, assigned tasks etc. But, in all courses/classes I put the needs of learning 'right up there with oxygen'.

* My goal is to approach the content of the course in a conversational manner. That means I think I have a lot to say but will rearrange the content according to how students respond.

* The content is flexible in advanced courses – more rigidly defined in the first year courses. Statistics classes are the most rigidly defined – interestingly the students prefer close organized material there – I suspect phobia/fear on some people's part and less so for the more advanced students.

* Course content is flexible within program guidelines, and content reflects, to some extent, students' interests within the subject area.

* The course content grows from my perception of the current state of the discipline – ie. what needs to be understood conceptually and substantively. Seminars are pre-structured, but I allow a great deal of scope for student organization.
* I would prefer a situation in which the students took more responsibility for the direction of the course. However, they currently have little experience in this. Moreover, they are usually overloaded with too much structurd work: under these conditions, 'creativity' becomes yet another onerous duty.

* In some of our core classes we may have 2-3 people each teaching one section. Thus, content must be consistent to some degree. It is the METHOD in which I find particular freedom. My colleagues do not like the idea of 125 students setting their own learning objectives or method for evaluation. So – in the classes in which I teach ALONE, then I enjoy much more flexibility.

OBJECTIVES:

* Overall objectives are set before first class but adjustment in focus

is done after I meet students to take account of <u>some</u> of their own objectives/comments.

* Students are encouraged to choose their own objectives in the light of the ones arrived at after the first session. An individual may have different objectives from the consensus one, and I'll try to respect these, especially if they are supplementary rather than diminished.
* Some of these practices are difficult in the context of existing Senate rules. I frequently use first class to outline alternatives regarding texts, grading scheme, also assessing class-size. With 12-15 students we can have a greater level of student participation than with a larger one.

* These (course objectives) are more aims at this point in time and not as specific as objectives can be once you know your class.
* (Course objectives are set by the students with my input) in the courses where you can wait for student input into what they see as important and the goals for them.

* (I recommend that students set personal learning objectives) especially if they are a mixed group, some with much higher skills than others - the less skilled students need to see themselves as succeeding by <u>their</u> standards even if they aren't excelling vis-a vis the 'best' students in the class.
* I try to get them to set goals for themselves re: their own perceived areas of weakness. Eg. if they say they just <u>can't</u> speak up in seminars and this drags their grades down, I try to get them to work out a personal strategy for increasing their seminar participation step-by-step.

* Objectives are set out in some detail at beginning of course, but are discussed/modified through discussion with students.

* (I set course objectives before the first class session) in terms of striving for relevance, involvement in the learning process.
* (I set course objectives after meeting with my class) in terms of a 'perception' of the group and individual needs.
* The overall objective in my 'teaching' is to help the individual student to sense growth and insight as a result of our time together - both professional and personal...to find special meaning.

* Objectives are a means for deepening professional and personal experiences of students. When viewed as an end they run the risk of becoming merely instrumental.

* I try, again in advanced classes, to give students responsibility for meeting their needs - I try to foster adult education, not dependent education.

* General objectives are set early; specific objectives are developed to aid students in their development, and understanding of the subject.

* For those students who want a clear framework, I offer it. For those who wish to depart from it, I encourage them.

* Tricky question! (If a student's personal objectives do not match course objectives, I recommend they take another course.) I try to convey, in one particular course, that this is a serious, involved course that requires commitment - if that's not what you expect, then drop the class. Their personal objective may be to get an A. Understand?

STRUCTURE/SEQUENCE:

* But changes can be introduced by students, eg. we reschedule sessions

often to accomadate special lectures offered by the university; spring break in H.S. (for evening classes with professional teachers as students), etc.

* The blue forms the registrar requires limits how long you can delay this (finalization of course plans) - with smaller classes you have the flexibility of getting group agreement but with large classes you're somewhat sewn in in terms of the marking system.

* My courses tend to be structured by their content - often chronological. I set out a week-by-week reading and general seminar topic schedule at the start of each term, and try to stick to that so that students always know where they are 'at', coming into each class. But from time to time things get modified - esp. if the course is new and I have misjudged timing in setting the schedule at the start.

* The structuring and sequence of topics is a dynamic process, subject to modification at any point. However, I like to maintain a predictable and logical sequence of topics through the year, although I am very opportunistic about using guest speakers, etc.

* Again, this varies with the course and the numbers involved. Since I co-teach several courses, there must be certain plans in place, which encourage communication and 'efficiency'.

* Structure depends partly on what learning projects students choose.

* I don't think I have ever kept to my original plans!
* The sequence of events can change very rapidly - if I feel student energy is sinking during a three hour evening session I'll rearrange material, ad lib, throw in a small group task etc.

* Chemistry is a structured subject. Within this structure, there is choice of topics and of sequence. Again, students' need to develop should influence choice.

* I think my answers are conditioned by the fact that I always seem to be teaching <u>new</u> courses! (They only get planned when they are over.)

* We 'fight' over this as a faculty. When there are 125 assignments to be marked, should each student decide upon a due date? I'm entirely open regarding due dates in smaller classes.
* Of course, plans will become more established as the class is taught repeatedly; course content will influence this as well. It depends upon whether the students' needs change over the years. In some courses, yes, in others, likely no.

INSTRUCTIONAL METHODS:

Other methods used:
   * interviews, time when they make a presentation to me alone when can get an exchange of ideas going.

   * fill-in-the-blank lecture worksheets, video, slides, debating, guest lectures from outside Brock.

   * case study.

   * videotape analysis of students' performing.

* Since all my classes have a practical component in the gymnasium, I naturally use many and diverse methods. Perhaps it is due to my needs as a learner!

* My colleagues do not like "marking such stuff"...(journals)

* Different situations call for different techniques. My main concern is that of confidence-building within students. The problem is always that of spotting the optimum time for each student to try a technique.

* (Lecture) in large classes but anything lessthan 50 or so I'd call it lecturette ie. 10-15 mins. then interactive stuff.

* In a general sense I try to focus on knowledge, skills, and meaning. This involves me using lecturing, coaching, and discussion methods.

* The learner must be actively involved in the teach/learning experience, so methods must encourage this process, both cognitively and experientially.

* (Independent student projects) esp. if a student is very bright or advanced, or doesn't function well in group (& nothing has worked re: his or her integration).
* In seminars, I encourage student-designed activities, which may take any form so long as the class when run involves everybody participating. I don't permit students to lecture at their peers or talk exclusively during their 'presentation'. The object is always the active participation of as many as possible of those present, with the emphasis on raising good questions and getting out lots of ideas, rather than on 'finding answers'.
* My lectures are pretty much lectures, with some pauses for questions/student input. But the seminars are definitely places of 'active learning' and are student-run. I think of the best/most successful seminars as ones where I've said nothing or almost nothing and they've kept things 'cooking' the whole time.

EVALUATING LEARNING:

* This (assigning grades) is a can of worms, isn't it? The problems are:
     1) there is a grade analysis committee at Brock. You are reprimanded if your grades are too high.
     2) students want to take classes in which they'll get high grades. Because...
     3) they want to get into teachers' college!!
* I think I've tried almost all of these methods of evaluation and there are always pitfalls...perhaps that's why the really traditional methods exist. If I have all the power, then no one can take it away from me!

* Like other instructors, I am obliged to be mindful of the grade distribution norms in the Senate handbook. Within this general framework, I attempt to give each student a grade which expresses his or her performance relative to the 'average' student for that year. Occasionally I end up with a skewed distribution - but I always know how to defend it, since the criteria I use are standardised.

* At year IV/graduate level, I invite students to set personal objectives in a general sense; allprogress in my experience, but not all progress to A grades.

* I assign grades on the basis of relative value within the class but I don't have a pre-determined # of A's - I let that and other grades fall relative to my assessment of the whole class - therefore sometimes there may be 70% A's, other times 5% !
* This is a tough area - I need to work on improving it. I think I do a better job of involving students in learning than I do in evaluating - I'd be interested in hearing how this fits compared to others you are

collecting data from.

* I tend to use a modified criterion-referenced contract plan with the additional idea that anything is negotiable.

* I try to have the learner indicate his/her level of insight/growth as well as my assessment of what is enough/desirable in terms of demonstrated growth/achievement. I do 'mark' papers, journals, etc.

* I make use of peer evaluation, prof. evaluation, T.A. evaluation, and combinations thereof.

* I fear that my 'set objectives' are not always fully understood by my students; on reflecting on this question, I think that probably I need to be more explicit in this.

* With some group work I tell them ahead of time – there will be one common grade unless they feel it should be otherwise and if they do, they must tell me before the final presentation/product is due. Then it can be marked more individually.

* I am the sole evaluator.
* (Grades are assigned on the basis of relative value) – well, not exactly a matter of relativity. In my discipline we think of ourselves as marking 'objectively' (though subjectively!). But in actual practice I think that I think relatively, and I check my grading by reading A's against A's and B's against B's the second time through.
* I have to grade essays and essay answers. I read them all and assign temporary grades to them, then re-read them in ascending order to see where I am out of line. I don't care how many A's, B's, etc. there are in a certain set though.
* I suppose so (grades are assigned on the basis of attainment of set objectives), but in the arts and arts criticism the 'objectives in terms of mastering of techniques are not very concretely defined – can't be...

EVALUATING TEACHING:

* I do take evaluations with a grain of salt though. Some students are serious and some aren't. In course evals. you can't always tell which are which, but if a course eval. overall seems to reflect the values of a lazy 'consumerist' (ie. the kind of student who wants to be filled up with info, but not to think or grow....) student I don't take it very seriously.

* With larger classes 100+ – feel you are always 1 group behind but it's hard to get around that problem – especially with large classes.

* I hand out evaluations at the final exam; this way I get the fullest indication of how well the students think the whole course has worked.

* Midterm evaluations are discussed in class and changes are affected when necessary.

* I solicit feedback verbally from the students while the course is in progress.
* I have designed my own evaluation form (for use when the course is over).

* I have students do weekly reaction cards and I may make modifications as a result.

* I would discuss results but the 'formal' evaluation is in the last 2 weeks and computer results are not released until all student grades

have been submitted to the registrar's office. We feel this policy encourages students to feel they can respond honestly without impact on their grades.

* I invite students to comment as course proceeds and to provide an overall evaluation at the end.

* The ethics of garnering student evaluations prompt me (and many colleagues) to stress ANONYMITY. This has the unfortunate consequence of limiting dialogue. I do, however, respond quickly to many of the anonymous criticisms and I take them seriously.

ADDITIONAL COMMENTS:

* Again most courses I 'do' are 'holistically' based, experiential, and thus the whole person is seen from his/her inner self (attitudes), functional level (knowledge gain), and action – what is shown or promised by way of application/behavior. I really enjoy the process of engaging a learner's interest, and coaching him/her through the inquiry and synthesis stages to a chance to see the 'power of insight' etc. applied and shared with others etc.

* In smaller classes student participation in course design is more appropriate (and possible) than in larger ones.
* I tend to recognize the different degrees of relevance of a course to the students' interests and objectives, and adjust the load accordingly (e.g. a philosophy major in a 2nd year class on Existentialism may end up reporting (giving a seminar) on a relatively complex whole text; a biology major taking the course as an elective may base his/her seminar on a relatively 'popularized' article).
* I do not think of the end of the term as the 'end' of the course. I deliberately open up avenues and leave some tasks unfinished, so that an interested student may follow this up when 'University no longer interferes with his/her education.' (e.g. we relate the role of an essay by an author, discussed in the course, to hisother works, briefly sketching the thrust of these, hoping to 'whet appetites'.)