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Self-Evaluation: College Students' Perceptions

By

Beverly E. Lafortune

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

In

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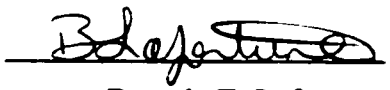

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Dr. Carolin Kreber

Professor Arthur Deane

Dr. George Buck

July 1, 2001

To RWL for your patience and unwavering support.

This thesis is dedicated to A.V. Lafortune (1924 - 2000)
whose love for learning and self-directed approach
to lifelong learning was an inspiration to me.

ABSTRACT

The primary objective of this study was to explore adult learners' perceptions of the use of self-evaluation in academic courses. A subsidiary intent was to explore connections between self-evaluation and self-directed learning readiness. A two phase mixed method design was employed in this study. The collection of both quantitative and qualitative data was completed through the use of three instruments. Descriptive and exploratory techniques were used to analyze the quantitative data such as frequencies and means, correlational analysis, factor analysis, and stepwise multiple regression. A first level content analysis was conducted for the qualitative data.

This study suggests that the following factors appear to be influential in college students' willingness to participate in self-evaluations as well as account for some degree of variance in students' level of readiness for self-directed learning: (a) instructor facilitation of self-evaluation processes, (b) learner control, (c) learner attributes, and (d) skills in reflective practice.

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Chapter 1

INTRODUCTION

The Problem and the Context

One of the goals of education embedded in the concept of lifelong learning is to assist students in becoming effective and responsible learners who can continue their education throughout their life span in a variety of contexts. The need to effectively monitor one's own learning, to develop the ability to realistically judge one's own performance, and to take full responsibility for one's actions and judgements is essential in many professions today (Boud, 1995). In response to this need, there appears to be renewed interest in the use of student self-evaluation as a method of assessment in post-secondary education settings. Some educators have argued that self-evaluation promotes the development of critical reflection skills which are fundamental to effective professional practice (Boud, 1995; MacGregor, 1993).

In my own practice as an educator it became apparent to me that, although adults often engage in some form of self-evaluation in their personal lives, not all adult learners embrace the use of self-evaluation in college credit courses. Although there has been a number of benefits documented in the literature pertaining to self-evaluation, the perceived benefits of any educational practice quickly diminish when met with resistance. The responses from students I encountered regarding the use of self-evaluation processes inspired me to question how such processes are being facilitated, whether self-evaluation is an appropriate method of assessment for all college students, and how effective it might

be to offer self-evaluation as an option rather than a requirement.

Prior to completing this research study, I believed that engaging in a self-evaluation process is not solely a cognitive activity. I suspected that one's self-esteem, previous experience with self-evaluation, clarity of expectations, lack of confidence in one's ability to accurately assess oneself, and the attitudes of instructors and students toward evaluation in general may influence students' acceptance of self-evaluation as an assessment method. I further believed that building a profile of college students' perceptions of self-evaluation methods used in credit courses may assist educators in developing strategies to assist students who appear resistant to engaging in a self-evaluation process.

If educators are going to introduce or continue implementing self-evaluation processes, increased understanding of how students perceive the use of self-evaluation is important because "every act of assessment gives a message to students about what they should be learning and how they should go about it" (Boud, 1995, p. 39). We need to determine if there are specific factors or conditions that influence students' willingness to engage in self-evaluation processes and how we might utilize that information to consider self-evaluation as a viable method of assessment.

Purpose of the Study

The main purpose of this study was to explore the use of self-evaluation in credit courses at Grant MacEwan College where the researcher was employed as an instructor. The College, established in 1971, is located in Edmonton, Alberta. The student

population at the time of this study was approximately 42,000. The College offers more than 78 diploma and certificate programs in the following divisions: Arts, Sciences, Business, Health, Community Studies, Community Education, Performing, Visual, and Communication Arts. University transfer and applied degree programs also make up a portion of the College offerings.

I was not only interested in exploring self-evaluation with students and instructors within the division of studies I was employed in, but also how students and instructors from other divisions are responding to self-evaluation processes. In particular, the emphasis of this study was placed on exploring students' perceptions of the use of self-evaluation as a method of assessment in credit courses. In order to gain appreciation for the context in which self-evaluation was being used, some attention was also directed to how self-evaluation was being implemented by the instructors whose classes were involved in the study. Instructors' perceptions about what students need in order to engage effectively in self-evaluation processes were also addressed.

Research Questions

The principal research question for this inquiry was: How do college students perceive the use of self-evaluation methods in credit courses? To guide this study, the following three subquestions were addressed:

(1) What factors influence students' willingness to engage in self-evaluation processes?

(2) What skills, learner attributes, or supports do students believe are needed to effectively self-evaluate as compared to what instructors believe students need?

(3) What factors related to self-evaluation influence students' readiness for self-directed learning?

Significance of the Study

Findings of this study will reflect feelings, opinions, and understandings about self-evaluation that come from a select group of students. The findings may offer educators insight into how students respond to self-evaluation as an assessment method and may lead to the identification of conditions or factors that enhance the use of self-evaluation. These insights may further assist educators in making decisions about how student self-evaluations are to be designed and implemented to increase their effectiveness.

The relationship between self-directed learning readiness and students' perceptions of self-evaluation was also being explored as part of this study. Specific emphasis was placed on determining if there are any variables related to self-evaluation that might predict students' perceived readiness for self-directed learning. The findings may reveal some insights into self-directed learning thereby further increasing our understanding of this concept.

This study may also contribute to assessment theory by addressing one of the fundamental questions: What is the purpose of assessment? The debate continues between formative and summative purposes. It is also increasingly debatable who should be doing the assessing. With the focus on lifelong learning and assuming responsibility for one's

own learning in post-secondary education settings, the practice of using self-evaluation as an assessment method continues to be a focal point in assessment reform discussions (Brown & Knight, 1994). Gathering data on how students perceive the use of self-evaluation as part of assessment practice may further our understanding of the types of assessment practices that are more or less favorable to students. As educators we need to be reminded that assessment can be one of the most significant prompts for learning and therefore we should pay attention to assessment practices (Boud, 1995).

Limitations

Three areas of weakness are evident in this research. Time and limited resources were a factor. The second limitation involves the data collection instruments employed in this study. The self-developed survey tools (Self-Evaluation Questionnaire for Students and the Instructor Questionnaire) used in this study are subject to inherent weaknesses. Also, criticisms have been raised by scholars about the reliability of the Self-Directed Learning Readiness Scale, a published instrument used in this study. A discussion on the criticisms is included in the section on validity and reliability in Chapter 3. The third limitation is in the application of the results. Although it is hoped that this research will have a broader application, the generalizability of this study is limited due to the convenient, purposeful sampling technique employed and the site-specific nature of the cases studied. However, this was an exploratory study specifically designed to describe the perceptions and experiences of college students with regards to self-evaluation processes in credit courses. The findings of this study reveal a comprehensive picture of

the phenomenon described. Educators of adults from a variety of settings may find some of the findings relevant to their contexts. Therefore, the purpose of this research may lend itself more to a notion of transferability rather than generalizability.

Definition of Terms

The following terms were employed in this research:

Assessment method. Refers to an activity or technique designed to determine if a student's work has met the requirements for a specific assignment or course.

College students. Students registered in one or more courses at a college. The student sample in this study consisted of both part-time and full-time learners.

Credit course. An accredited course in which students receive credit if the specified requirements are met.

Perceptions. A person's response to and interpretation of an experience, event, or stimulus. Perception can vary from person to person because of differences in interpretation and impact of the experience, event, or stimulus.

Resistance. Refers to a negative or non-favorable response.

Self-Directed Learning Readiness Scale. A published instrument developed by Guglielmino in 1977, as part of her dissertation, to assess the perceived readiness of individuals to engage in a self-directed learning process.

Student self-evaluation. This term is commonly referred to as both a process and an activity with a distinct identity (Boud, 1995). Although context specific, the process typically involves students in aspects such as establishing goals and assessment activities as

well as the criteria on which to base the self-evaluation. The activity itself is often a specific task designed to engage students in a process of reflection on their own learning and to evaluate the learning according to specific criteria. The activity may be a written or a verbal task. At this point in time, there is no evidence of an all encompassing, accepted definition by educators and researchers. It is also important to note that the term self-assessment is often used interchangeably with the term self-evaluation.

Organization of the Thesis

The compilation of the thesis includes five chapters. Following this first introductory chapter is the review of the literature thought to be salient for the research. Because of the connection between self-evaluation and self-directed learning, part of the literature review includes relevant information from the body of literature on self-directed learning. Chapter Three details the method employed for conducting the study. Included in this chapter is a description of the sample, the instruments, the data collection and analysis process, as well as ethical considerations. Chapter Four presents the findings and discussion. Chapter Five includes a summary as well as offers conclusions, implications, and recommendations for educational practice and future research.

Chapter 2

REVIEW OF RELATED LITERATURE

This chapter presents a review of literature related to the topic of self-evaluation within the context of adult education. Given the broad scope of the topic and its integral links to assessment issues in general as well as andragogical concepts such as self-directed learning and self-regulated learning, the literature search encompassed a wide range of books and articles. The following themes were focused upon: (a) assessment and the links to self-evaluation, (b) self-directed learning and the links to self-evaluation, (c) self-regulated learning and the links to self-evaluation, (d) student perceptions of self-evaluation, and (e) learner resistance to self-evaluation.

Evaluation and Assessment

Within the field of education, evaluation and assessment continues to be a topic of interest amongst educators. According to Brookfield (1986) there is a "voluminous literature on evaluation" (p. 261) and my purpose is not to review it in its entirety but rather to provide a context for the discussion of self-evaluation in relation to assessment in general.

Brookfield (1986) argues that although the two terms, evaluation and assessment, are often used interchangeably they are fundamentally different. He proposes that assessment involves nonjudgmental checking as to whether certain purposes have been attained. Evaluation, on the other hand, implies judgement concerning the worth or

quality of something. Others, such as Boud (1995) contend that judgement is involved in any type of assessment or evaluation and that it is the purpose that varies. Within the literature, a distinction is often made between summative and formative assessment or evaluation.

Typically, summative evaluation focuses primarily on making evaluative judgements and the accreditation of knowledge or performance which usually occurs at an end point (Boud, 1995; Brown, 1999). Formative evaluation is characterized by being a continuous process with the prime purpose of helping students improve; it is assessment for learning (Boud, 1995; Brown, 1999). Boud (1995) argues that judgement occurs in both processes but with different needs being served. Summative evaluation primarily serves the needs of the external world whereas formative evaluation serves the needs of the learner (Boud, 1995). Summative evaluation has been the traditional form of evaluation in education and the underlying assumption is that students are to be evaluated on their level of acquisition of the predetermined body of knowledge transmitted to them (Brew, 1995).

According to Boud (1995) all assessment involves two key elements. The first element is the development of knowledge, appropriate standards, and criteria for meeting the standards. The second element is the capacity to make judgements as to whether the work involved meets the standards. Boud (1995) contends that "every act of assessment gives a message to students" (p. 39) and the messages are often interpreted differently by both instructors and students. The literature on assessment supports the argument that "when assessment is at its best, it can be motivating and productive for students, helping

them know how well they are doing and what else they need to do" (Brown, 1999, p. 3). This growing recognition of the role of assessment in the learning process coupled with the changing role of students toward greater participation in their learning has prompted a shift in thinking about assessment practices (Brew, 1995). Many educators are exploring alternatives to traditional assessment in order to meet the need for credentials and to promote learning. One alternative to traditional assessment practices is self-evaluation.

Assessment and Self-Evaluation

Although some educators may view self-evaluation as a new alternative it has a long tradition in higher education that dates back to the 1930s (Brew, 1995). Learners have always been self-assessing in one way or another and although the process appears to be ad hoc or peripheral to formal assessment, it is a commonplace part of learning (Boud, 1995). The earlier research in self-evaluation focused primarily on comparisons between instructor generated grades and grades generated by students. The emphasis later shifted towards developing ways in which students and practitioners could assess their own work (Brew, 1995). The fundamental importance of self-evaluation to learning and the need for self-assessment skills for professional life was heralded by scholars such as Heron during the 1980s (Brew, 1995). There appears to be renewed interest in self-evaluation and the focus of more recent work has been to extend previous research as well as to develop a wider range of self-evaluation strategies (Brew, 1995).

Both terms, self-evaluation and self-assessment, are commonly used in the literature. Although some authors have tried to distinguish between the two terms, no

consensus has been reached as to whether there is a fundamental difference and so the terms are used synonymously (Boud, 1995). Self-evaluation may be defined as both a learning process and a method of assessing specific learning activities (Boud, 1995). Self-evaluation may be used for either formative or summative assessment purposes. Some scholars have argued that in order for self-evaluation to be meaningful, it needs to involve more than the assignment of grades by students for their own work (Boud, 1995). According to Boud (1995) one of the primary characteristics of self-evaluation is that it involves learners in ". . . the process of determining what is good work in any given situation" (p. 12). He further argues that if the requirements of grading dominate the process, the potential of self-evaluation is reduced.

Randall (1999) defines self-evaluation as "an on-going process of learners getting to know themselves as learners" (p. 16). She contends that in order for this process to be an effective one, it must engage learners in ". . . the full cycle of action, reflection, evaluation, and further planning for continued improvement" (Randall, 1999, p. 16). The idea of self-evaluation consisting of a process dominates the views in the literature.

A number of benefits of self-evaluation have also been cited in the literature. One of primary benefits of self-evaluation is that it provides learners a sense of ownership and responsibility in the learning process which may increase intrinsic motivation to learn because students feel they have a greater investment in what they are doing (Battersby, 1999; Brown & Knight, 1994). It has also been argued that the development of self-evaluation skills is important not only for effective learning now but as a necessary skill for lifelong learning and an essential feature of professional practice (Boud, 1995; Brew,

1999; Brown, Bull & Pendlebury, 1997; MacGregor, 1993). When the primary focus is instructor-driven evaluation, students become dependent on others to monitor and judge their work. The argument is that the appropriate use of self-evaluation can help shift the focus away from passive dependence towards self-determination (Boud, 1995). The use of authentic assessment tasks related to tasks students will undertake in their professional practice places self-assessment at the heart of learning (Brew, 1999).

Brown and Knight (1994) argue that self-evaluation ". . . fosters a different, more powerful view of the student than does traditional assessment" (p. 54). The appropriate use of self-evaluation facilitates the development of knowledgeable, self-directing, and reflective people (Brown & Knight, 1994). Brown, Bull, and Pendlebury (1997) argue that one of the central purposes of self-evaluation is ". . . to develop one's cognitive processes so that one's learning is developed" (p. 181). The focus on learning-how-to-learn skills and deep level learning through the use of self-evaluation is further supported by Boud (1995). Deep level learning is described by Boud (1995) as an approach to learning that focuses on the meaning of words, making sense of what is being learned, and relating it to one's own understanding or experience. This approach to learning is in contrast to surface level learning which is characterized by a learner's approach that focuses only on the words used by teachers and those found in textbooks, as well as memorization of the specific content (Boud, 1995). Kusnic and Finley (1993) also propose that the use of self-evaluation strategies assist learners in building "active and meaningful relationships with the material they are studying" (p. 6). Potentially, self-evaluation may lead to deep level learning however, studies to support this position are

scarce.

When comparing self-evaluation to more traditional forms of assessment, self-evaluation would be considered as an innovative assessment process. Within the literature there appears to be little doubt that "self-assessment, self-knowledge and formative assessment intertwine" (Brown & Knight, 1994, p. 54). Since self-evaluation may be viewed as a way to facilitate self-direction in learners it is essential that the concept of self-directed learning be examined.

Self-Directed Learning

From the literature on self-directed learning it is apparent that this is certainly not a new concept and that numerous conceptualizations of it exist. According to Brockett (1994), "the notion of self-direction in learning has been at the center of discussions about the study and practice of adult and continuing education for more than a quarter century" (p. 5). Given this lengthy history one might assume that by now a clear, agreed-upon definition of the concept would be in place. This is not the case. There are not only a variety of images that come to mind when people speak or write about self-direction in learning (Candy, 1991), but there is also a lack of consensus amongst scholars regarding terminology used to describe self-directed learning (Caffarella, 1993). The concept therefore remains a very complex one, yet it continues to be a focal point of discussion amongst many educators today.

Given the rapid pace of change our current society is exposed to, knowledge itself quickly becomes outdated. The need to become lifelong learners has been emphasized by

educators as essential for today's workforce (Closson, 1996). The value of learning how to learn is enhanced because it is transferable to other learning situations, whereas knowledge itself may not be and is often short-lived (Candy, 1991). Helping learners to become even better learners has been, according to Candy (1991), an "enduring, universal mission of educators" (p. 317). The ability for learners to be self-directed in their learning could therefore be considered as essential. Knowles, who is often described as one of the pioneers in the field of adult learning, predicted that by the year 2020 "all learning — from elementary school through post-graduate education — will be based on the principles of self-directed learning" (cited in Hatcher, 1997, p. 37).

Knowles (1975) introduced the term self-directed learning as part of his theory of adult learning which he termed andragogy. This theory may be better described as a model of assumptions about adult learners. In this model, Knowles (1980) describes adult learners as having a ". . . deep psychological need to be generally self-directing, although they may be dependent in particular temporary situations" (p. 43). This notion of self-directed learning as a characteristic or attribute of adult learners has since appeared in a number of descriptions of self-directed learning. Knowles (1975) also describes self-directed learning as a process in which learners are actively involved in the diagnosis of their learning needs, developing learning goals, identifying resources, selecting learning strategies, and evaluating learning outcomes. This process may or may not involve the assistance of others. One of the key elements of Knowles' conceptualization of self-directed learning is the learning contract.

Knowles drew on the work of scholars and educators such as Dewey, Dressel and

Thompson, Houle, Tough, and others to further develop the concept of contract learning which grew from the conceptual base of independent study (Knowles, 1986). According to Knowles, learning contracts provide a vehicle to assist learners in becoming more self-directed because the process becomes a mutual one between the learner and his or her teacher. By engaging in contract learning, learners develop a sense of ownership and commitment to the learning plan. Brookfield (1986) has also supported the use of learning contracts citing them as ". . . the most effective technique for assisting students to diagnose their learning needs, plan learning activities, identify and select resources that are relevant and appropriate and become skilled at self-evaluation" (p. 81).

Although a supporter of the use of learning contracts, Brookfield initiated a change in thinking about self-directed learning (Cranton, 1996). Brookfield (1986) successfully argues that self-directed learning involves more than technical skills. He contends that "at the heart of self-directedness is the adult's assumption of control over setting educational goals and generating personally meaningful evaluative criteria" (Brookfield, 1986, p. 19). The construct also involves learning how to change one's perspective through critical reflection (Brookfield, 1986). According to Brookfield (1986), self-directed learning is characterized by an "internal change in the consciousness of the adult after he or she has engaged in a critical analysis of a range of alternative possibilities" (p. 85). The notion of self-directed learning as a process involving critical reflection was heralded by other scholars as well.

Mezirow, for example, is also amongst the first writers to address the critical perspective as a necessary component of self-directed learning and believed that through

the questioning of assumptions held by learners, changes in the present social, moral, and political order can be influenced (Caffarella, 1993). Mezirow (1985) contends that "no concept is more central to what adult education is all about than self-directed learning" (p. 17). Mezirow (1985) describes self-directed learning as a process in which a learner diagnoses his or her own learning needs and formulates his or her own learning goals, but extends his conceptualization by interrelating three functions of adult learning with self-directed learning: instrumental learning (task-oriented, problem solving), dialogic learning (interpreting meaning from others), and self-reflective learning (understanding ourselves). Based on this conceptualization, Mezirow (1985) proposes that a self-directed learner should be capable of engaging in this process in all three functions. The idea of self-direction in learning involving critical reflection emphasized by Brookfield and Mezirow has become embedded in current conceptualizations of self-directed learning. Garrison (1997), for example, continues to explore the cognitive processes involved in self-directed learning and has proposed a comprehensive model in which he views self-directed learning as "an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes" (p. 18).

Candy (1991) has also extended the conceptualization of self-directed learning as both a process and a product by identifying four dimensions of self-direction. The first two dimensions pertain to self-direction as a method or process and include learner-control and autodidaxy. Learner control relates to the method of organizing instruction

within formal settings and may be conceived of as a continuum with teacher control at one end and learner control at the opposite end (Candy, 1991). This continuum would accommodate a changing equilibrium with regards to the degree of control over the learning between teacher and learner as the dynamics of the learning context changes (Candy, 1991). Autodidaxy refers to the process of self-directed learning that occurs outside formal educational settings (Candy, 1991). Candy makes it clear that autodidaxy is not a method of instruction but rather a characteristic that implies ability to be an autonomous learner; one who is capable of self-instruction in which both the ownership and control of the learning rest with the learner from the outset.

The third and fourth dimension pertains to self-direction as an outcome or goal and includes self-management and self-determination (Candy, 1991). Self-management refers to the capacity of self-directing one's learning in a specific learning context (Candy, 1991). Self-determination, on the other hand, refers to personal autonomy which takes into account the broader learning context that includes social, moral, and political dimensions (Candy, 1991). The idea of self-determination as a personal attribute is also implied.

Despite the lengthy history and complexity of the concept of self-directed learning some authors, such as Piskurich (1993), continue to subscribe to the view of self-directed learning as a training design or method which involves learners mastering predetermined material at their own pace. This view stems from a practical orientation that focuses on a training model. Brookfield (1986) argues against equating self-directed learning with independent study. The argument revolves around the idea that "one cannot be a fully self-directed learner if one is applying the techniques of independent study within a context

of goals and evaluative criteria determined by an external authority" (p. 19). Although there may be some common elements between the two concepts, they also contradict one another. One of the central premises of self-directed learning, according to Brookfield (1986), is the assumption of control by the learners in setting goals and determining meaningful evaluative criteria.

The philosophical assumptions underlying the concept of self-directed learning include the humanistic, progressivist, behaviorist, and critical perspectives (Caffarella, 1993). Within the humanistic perspective the focus of learning is on the individual and self-development (Caffarella, 1993). Learners are expected to take responsibility for their own learning. The focus of learning from the progressivist perspective is on the process and takes into account the learners' experience. The learning is practical and pragmatic in nature (Caffarella, 1993). The behaviorist perspective focuses on how one should go about the process (Caffarella, 1993). Examining one's assumptions and taking action to make changes is part of the critical perspective (Caffarella, 1993). These four underlying assumptions have shaped the current conceptualization of self-directed learning which appears to incorporate three principal ideas: a learner-initiated process that focuses on the ability of learners to plan and manage their own learning in collaboration with others, an attribute or characteristic of learners, and a way of organizing instruction that allows for greater learner control (Caffarella, 1993).

There has also been considerable research into the identification of specific competencies, characteristics, and attributes associated with self-directed learners. According to Candy (1991) over 100 competencies have been linked with successful self-

directed learning. Candy (1991) has grouped these competencies into 13 categories according to qualitative similarities. The categories are as follows: (1) methodical and disciplined; (2) logical and analytical; (3) reflective and self-aware; (4) demonstration of curiosity, openness, and motivation; (5) flexible; (6) interdependent and interpersonally competent; (7) persistent and responsible; (8) venturesome and creative; (9) confidence and positive self-concept; (10) independent and self-sufficient; (11) information seeking and retrieval skills; (12) knowledgeable of and skilled at learning processes; and (13) ability to develop and use criteria for evaluating (Candy, 1991).

Other scholars, such as Cranton (1992), have highlighted the importance of understanding self-direction in learning as a process. She argues that the process of working towards self-directed learning is for many adults "a complex and painful" (p. 110) one because it often requires a radical change in beliefs and values about the nature of education. Given this position it seems important that learners have a clear understanding of the process involved in self-directed learning and feel ready to participate in it.

The idea of readiness was explored by Guglielmino. She proposed that in any given learning situation, it is primarily the personal characteristics of the learner which determine whether self-directed learning will take place (Guglielmino, cited in Bonham, 1991). As part of her dissertation in 1977, Guglielmino developed the Self-Directed Learning Readiness Scale (SDLRS) which in its present form is a self-report questionnaire consisting of 58 Likert response items. The instrument was designed to measure the perceived readiness of individuals to be self-directed learners. The questionnaire has a reliability coefficient of .87 and at present it is the most widely used instrument for

measuring readiness for self-directed learning. The instrument can be used by educators to identify suitable learners for programs requiring self-direction in learning and to assist learners in identifying their strengths and weaknesses in this area to further develop their potential for self-directed learning (Guglielmino; Brockett, both cited in West & Bentley, 1990).

The questions on the scale were developed from an investigation into skills and attitudes conventionally associated with self-directed learning as identified through a Delphi survey process with a panel of 14 individuals who have expertise in the area of self-directed learning. A factor analysis resulted in the identification of the following eight factors that underlie the structure of the scale: "Openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of learning, creativity, future orientation, and ability to use basic study and problem-solving skills" (Guglielmino, cited in Candy, 1991, p. 150). Despite widespread use of the SDLRS, it has not escaped criticism (Candy, 1991). A number of issues have been raised by various educators and scholars about the validity and reliability of the scale. These issues are discussed in detail in Chapter 3. However, the criticism of the SDLRS does not negate the skills and attitudes identified as important to the development of self-direction in learners.

Based on the work of Brockett and Hiemstra, Candy, and Pratt, Caffarella (1993) has outlined four variables that appear to influence autonomous learning behavior. These variables are: (1) level of technical skills, (2) familiarity with the subject matter, (3) a learner's sense of personal competence as a learner, and (4) the learning context

(Caffarella, 1993). Although there is some overlap with Candy's (1991) descriptors the additional piece is the learning context which takes into consideration influences beyond a learner's competence or personal attributes.

In conclusion, it appears that scholars and educators are moving beyond the view of self-directed learning as an either-or concept and subscribe more to the notion that there are varying degrees of self-direction and that it may be situation-specific (Brockett, 1994; Brookfield, 1986; Candy, 1991; Pratt cited in Closson, 1996). There is also evidence to suggest that educators are no longer subscribing to the notion that learners are naturally self-directed or that they all prefer to be self-directed (Cranton, 1996). What is generally accepted is that the term self-directed learning is being used to describe at least four different aspects: (1) a personal characteristic, (2) a process of managing one's own learning, (3) a way of processing information, and (4) a goal of higher education. Within this conceptualization of self-directed learning, what is the role of self-evaluation?

Self-Evaluation in Self-Directed Learning

According to Brown and Knight (1994), self-evaluation is a necessary component in higher education settings where developing knowledgeable, self-directing, reflective people is valued. At the heart of self-evaluation is the goal of promoting the reflective student, one who has a degree of self-directing independence (Brown & Knight, 1994). Self-evaluation can be used as a way to develop reflective individuals, which in turn, become well placed to be life-long learners (Brown & Knight, 1994). Self-evaluation is also an essential component in Knowles' concept of contract learning because if learners

are to be involved in diagnosing their learning needs and evaluating their learning outcomes, they need to be able to reflect on their performance, identify their strengths and weaknesses, and make a judgement about their level of performance in light of the established criteria or standards.

Some educators argue that skills of independent learning can be taught and others argue that they can only be enhanced through direct experiences. Candy (1991) supports the latter argument: "One learns responsibility and self-direction through experiences in which one is given the opportunity to be self-directed and responsible for one's actions" (p. 319). Candy further contends that because there is a complex interaction between motive and strategy in any given learning situation that the ability to learn independently must be embedded in the context of the learner's previous knowledge, understandings, and purposes of the learning. According to Candy (1991), self-direction is not something that can be overtly taught. Boud (1995) argues the same of self-evaluation; it is a process and not a technique that can be taught in a session or used as an additional activity at the end of a course. Self-evaluation is a process that involves a number of skills in addition to learners' personal attributes and in order for it to be an effective strategy for enhancing learning, self-evaluation must be embedded in the curriculum. Learners must be given opportunities to be involved in the learning process in which they assume at least partial responsibility for their learning.

However, Brookfield (1986) argues that educators should not assume that learners possess an innate ability to engage in all aspects within the process of self-directed learning. For example, according to Brookfield (1986), the ability to write learning

contracts is a learned skill that requires the assistance of the instructor or facilitator in helping learners focus on realistic and manageable activities.

Of the competencies Candy (1991) linked with successful independent learning, some are clearly connected to learner self-evaluation. One of the competencies is that of being reflective and self-aware. Included in that category are specific attributes or skills such as the ability to decide what knowledge and skills to learn, knowing one's strengths and weaknesses, and understanding one's own values, abilities, and knowledge. The processes of self-evaluation and reflection are intricately linked. Boud (1995) argues that the development of reflective skills is critical to meaningful self-assessment at any stage of the process. Prior to engaging in a learning experience, learners may need to reflect on what they know, what they don't know, what they need to know, and how they will go about engaging in the learning process (Boud, 1995). During a learning experience, learners may be involved in the process of assessing and determining whether their goals are being met or comparing self-monitored information with some sort of standard or goal (Zimmerman, 1998). Following the experience, learners may continue the reflection process but with a focus on thinking about how what they have gained relates to their needs, challenges what they thought they knew, and perhaps the setting of new learning goals (Boud, 1995).

Another characteristic of autonomous learners is that of being persistent and responsible. Within that category are attributes and skills such as being able to assume academic responsibility and having an informed acceptance of the responsibility for one's own learning (Candy, 1991). These learner attributes are also important for engagement

in self-evaluation processes because learners need to be committed to the process and be willing to accept the responsibility of it in order to participate in it effectively (Boud, 1995). From the literature, it appears evident that the involvement of the learner is one of the critical elements in self-evaluation.

A third shared characteristic of autonomous learners is having knowledge about and skills in the processes of learning which include the skill of being capable of reporting what one has learned in a variety of ways (Candy, 1991). Specific abilities identified are: the ability to develop and use criteria for evaluating oneself; the ability to participate in diagnosing, prescribing, and evaluating one's progress; and the ability to evaluate new learning activities, the appropriateness of new skills, and the quality of new ideas and knowledge (Candy, 1991).

From the literature it is evident that, like other forms of assessment, self-evaluation may be used for developmental or judgmental purposes (Brown, Bull & Pendlebury, 1997). It also appears that some of the learner characteristics associated with self-directed learning also apply to engaging in a process of self-evaluation. A concept that also has links to self-direction and self-evaluation is self-regulated learning.

Self-Regulated Learning

Zimmerman (1998) defines academic self-regulation as ". . . the self-directive process through which learners transform their mental abilities into academic skills" (p. 2). Although there are different models of self-regulated learning, all appear to have in common the basic assumption that students can actively regulate their cognition,

motivation, or behavior and through these processes can increase their performance levels and ability to achieve their goals (Hofer, Yu, & Pintrich, 1998).

Zimmerman (1998) proposes a multidimensional model that involves cognitive, emotional, behavioral, and contextual components. Because of the diversity of the components and their changing nature, self-regulated learners need to continuously reassess their effectiveness (Zimmerman, 1998). From this perspective, academic learning is therefore viewed as a cycle. Zimmerman's (1998) model consists of three major phases: forethought, performance or volitional control, and self-reflection. Sub-processes have been identified within each phase.

The first phase, forethought, consists of five sub-processes: (1) goal setting, (2) strategic planning, (3) self-efficacy beliefs, (4) goal orientation, and (5) intrinsic interest. Within the second phase, performance or volitional control, the following three sub-processes have been included: (1) attention focusing, (2) self-instruction/imagery, and (3) self-monitoring. Four sub-processes have been identified as part of the third and final phase, self-reflection: (1) self-evaluation, (2) attributions, (3) self-reaction, and (4) adaptivity. Each phase influences the next one and the cycle repeats itself (Zimmerman, 1998).

Zimmerman (1998) contends that "awareness of the importance of this learning cycle is the foundation for students' assuming the responsibility for their own academic achievement" (p. 10). He further proposes that students' level of self-regulatory skills determines whether their learning experiences will become self-fulfilling or self-destructive. Questions have been raised within the literature related to the acquisition of

these skills. Zimmerman (1998) has suggested that "self-regulation emerges from two essential sources: social and self-directed experiences" (p. 10). It has been proposed that students require extensive opportunities to engage in self-directed practice in socially supportive environments in order to develop self-regulatory skills (Zimmerman, 1998). The idea that academic self-regulation and forms of self-reflection can be learned has also been proposed and a variety of instructional models have been developed (Zimmerman, 1998).

Hofer, Yu, and Pintrich (1998) have also examined various teaching and learning strategies related to self-regulatory skills and have found a great deal of diversity in terms of the focus on different interventions, but that motivation and cognitive strategies both need to be considered. There is strong evidence to suggest that given the variance in college students the integration of learning strategies within the curriculum is more effective than stand-alone learning skills courses.

Self-Evaluation in Self-Regulated Learning

According to Zimmerman's (1998) model of self-regulation, self-evaluation is usually one of the initial processes to occur during the self-reflection phase. This process involves comparing self-monitored information with a goal or standard (Zimmerman, 1998). Weiner (cited in Zimmerman, 1998) has suggested that "self-evaluations typically lead to attributions about the causal meaning of the results" (p. 5). For example, a learner may attribute poor performance to limited ability, to lack of effort, or to bad luck. Attributions are influenced by a variety of contextual and personal factors, yet they are

critical to the self-reflection process because if learners make errors in attributions to their ability as a result of their self-evaluation, it may cause them to react negatively or to give up altogether (Zimmerman, 1998).

One of the criticisms of self-evaluation has been that learners appear to lack the ability to make accurate judgements about their academic performance. A strong argument could be put forth that only through experience and opportunities to set learning goals and engage in critical reflection will learners raise their level of expertise in making effective judgements about their learning. One of the essential components to this process is what Candy (1991) refers to as comprehension monitoring which he defines as, "a metacognitive procedure whereby learners reflectively monitor their own performance as learners and learn to adapt alternative strategies for themselves" (p. 336).

Self-regulation theorists, Hofer, Yu, and Pintrich (1998) have also cited the importance of the ability to monitor one's thinking and academic behavior in connection to self-regulated learning. In order to regulate their learning, students must be able to monitor and assess it. Further support for this argument is found in the work of Garrison (1997) who also views self-monitoring as central to the process of assessing the quality of learning outcomes and developing strategies to further one's learning. Self-monitoring is defined by Garrison (1997) as "the process whereby the learner takes responsibility for the construction of personal meaning; [the integration of] new ideas and concepts with previous knowledge" (p. 25). According to Garrison, both internal and external feedback is essential to the self-monitoring process because the internal alone may lack accuracy.

According to self-regulation theorists, Hofer, Yu, and Pintrich (1998), there have

been a number of learning strategies developed to assist students in becoming self-regulated learners. These strategies are comprised of a number of different cognitive, metacognitive, and motivational strategies. Self-evaluation may be viewed as a learning strategy. There appears to be some evidence to suggest that it is important for educators to teach, model, and practice a few strategies at a time to increase students' ability to use the strategies effectively. There is also some evidence to suggest that it may be more difficult to change college students' use of and knowledge about learning strategies compared to younger students due to their prior school experiences that may have entrenched certain skills and behaviors (Hofer, Yu, & Pintrich, 1998).

It appears then that the impact of the total learning environment on students is increasingly being recognized and inevitably this includes the need to look at the profile of assessment as students see it (Brew, 1999). Boud (1995) goes one step further and proposes that the most important consideration in designing self-assessment strategies is to consider the process from ". . . the point of view of typical students who might encounter it" (p. 198).

Student Perceptions of Self-Evaluation

Student expectations of self-evaluation need to be explored and taken into account when introducing self-assessment because their perceptions of the process can have a potent influence on their learning and will govern how they will act (Boud, 1995). If learner perceptions are ignored, there may be an increased risk of resistance to the idea.

Some of the research conducted in the area of student perceptions or attitudes

toward self-evaluation revealed that students' attitudes are more favorable when they are familiar with the process of self-evaluation and have experience with it (Marienau, 1999; Williams, 1992). All 50 participants in Marienau's (1999) qualitative study conducted with first year graduate students in a program that emphasizes self-evaluation indicated that "doing self-assessment had some positive impact on their capabilities concerning both learning and performance" (p. 142). There were a few "mildly negative concerns" (Marienau, 1999, p. 142) expressed about the challenge of completing self-evaluation, but none of the participants indicated that it was not worth the effort. The students who participated in the research perceived self-evaluation as beneficial in the following four areas: (1) increases self-acceptance and sense of competence, (2) enhances higher order thinking and problem-solving skills, (3) facilitates development of an internal standard for monitoring one's attitudes and behavior, and (4) increases ability to learn from one's experiences (Marienau, 1999). The participants in this study strongly endorsed self-evaluation when the process is integrated with the curriculum.

Williams (1992) reported similar findings in that the majority of students in her study found self-evaluation to be not only useful but fun to do and wanted to see it extended to other parts of the course. Only 5 out of 99 students reported a dislike for self-evaluation. The strong support for self-evaluation in this study has links to experience with self-evaluation, the involvement of students in developing the criteria, and a clear understanding of the process (Williams, 1992).

Few studies have focused on what adult learners perceive to be essential skills for self-evaluation. One such survey was conducted by Randall (1999). She surveyed a

group of adult learners about what they thought learners needed to effectively self-evaluate and they responded with items such as confidence, courage, time, opportunities to engage in dialogue with others and to reflect on one's skills and abilities, as well as to have a clear understanding of the expected standards.

When introducing innovative teaching strategies including those related to assessment, even when implemented well, there is likely to be some degree of resistance (Boud, 1995). In order to increase our understanding of how to facilitate self-evaluation processes, we need to examine the possible sources of learner resistance to self-evaluation.

Resistance to Learner Self-Evaluation

Implementation of learner self-evaluation strategies is not without risks and challenges. Resistance to learner self-evaluation is likely one of the most challenging aspects to implementing this form of assessment. Resistance to change is a powerful dynamic that is not limited to educational organizations and educators. Learners themselves can be equally resistant to change in educational practices (Boud, 1995). There are varied reasons students may resist self-evaluation and from the literature I have identified four key aspects related to learner resistance.

One of the primary sources of resistance is rooted in what Long (1994) refers to as emotionally based resistance. This type of resistance emerges from such aspects as fear of the unknown, lack of confidence, uncertainty, or negative experiences. Few would argue that "matters linked with assessment have an emotional charge to them" (Boud, 1995, p. 177). Some learners are fearful or anxious about any type of evaluation. As stated earlier,

this anxiety may stem from a variety of sources such as negative prior experience with evaluation or lack of confidence in ability. Also, students who set high standards for themselves may fear that they are not as competent as they think (Boud, 1995; Cranton, 1992). Students may also fear they will be penalized if they are honest in their self-evaluations and may instead try to guess what the instructor may be looking for (Eaton & Pougiales, 1993). According to Brown and Knight (1994), some students may resist involvement in self-evaluation processes because "they lack confidence in their own powers and feel that they are not capable of making important judgements about their own work" (p. 52).

There is also an issue related to comfort with past practices of didactic instruction that contribute to the development of passive learners. This type of learning does not require the same level of work and involvement from the learner as does a more learner-centered approach. Resistance may surface as a result of conflict between the two paradigms, teacher-directed and learner-centered (Boud, 1995). Some learners may not want to change their learning style and would view self-evaluation negatively if it were imposed on them.

The second issue related to resistance is that there appears to be an assumption made by higher education instructors that students have the ability to effectively use self-evaluation skills for monitoring and planning their learning progress (Boud, 1992; Orsmond & Merry, 1997; Sullivan & Hall, 1997). In a study conducted by Orsmond and Merry (1997) results showed there was a tendency for poor students to over-mark their work while good students tended to under-mark their work. Within the sample of 105

students there was an 86% disagreement between the self-grade and the tutor grade. Inferences drawn from the data suggest the results could reflect the uniqueness of the assessment task or perhaps a lack of experience and training in self-evaluation (Orsmond & Merry, 1997).

Sullivan and Hall (1997) did not find a high disagreement between student and instructor marks in their study with 34 third year education students. Their study focused on the introduction of self-assessment as a strategy for improving learning. As part of their study, students were asked to self-evaluate a major assignment in the course. The course instructor also graded the assignments. The student assessments and the instructor assessments were then compared by the researchers. This was followed by interviews with 10 participants where a discrepancy in assessment was detected. However, the differences in the grading were not sufficiently large to draw any firm conclusion. There was a tendency for the group who overestimated their grades to include effort as a factor in their judgement and to look for more specific guidance on what the instructor wanted with regards to assignment criteria. Additional insights included the value in exploring methods to improve students' skills in making judgements about their own work.

Brown and Knight (1994) suggest that based on the research completed to date, there is no consistent pattern of students over-estimating or under-estimating their own work in comparison to instructors' assessments. What does seem evident is that in order to increase students' skills in self-evaluation, having clear criteria for success or failure in addition to the justification of achievement with evidence is important.

Brown, Bull and Pendlebury (1997) argue that self-evaluation is more accurate

when training is provided. Students need opportunities to develop and check their skills against criteria (Brown, Bull & Pendlebury, 1997). Skills in self-evaluation should not be assumed (Boud, 1995). Students need practice in preparation for self-evaluation (Boud, 1995; Brown & Knight, 1994). There appears to be a wide range of skills and abilities involving completion of self-evaluation tasks amongst adult learners. Some students may be capable of more complex analysis of their learning, others may have more skills in reflecting on the personal aspects of their experiences, and others may produce more surface level reflections (MacGregor, 1993).

A third issue related to resistance is that some students may object to learner self-evaluation because they feel that assessment is solely the instructor's responsibility and that it is perhaps an unethical practice or a manipulative strategy used to get out of work (Boud, 1995; Brown & Knight, 1994; Cranton, 1992). For some students self-evaluation may create cultural discomfort (MacGregor, 1993). Within some cultures there is a strong belief that the teacher is the expert and therefore the only one who should evaluate learning. Brown, Bull and Pendlebury (1997) have also suggested that there are some learners who prefer to keep their thoughts regarding assessment private and may view self-evaluation processes that involve disclosure as an infringement and if imposed, an unethical practice.

The fourth and final aspect related to students' resistance to self-evaluation involves implementation strategies used in the process. If the purpose is not clearly articulated and students are not involved in the process, resistance is likely to increase (Boud, 1995). Other elements of the implementation process that need to be attended to

in order to reduce the risk of resistance include explicit procedures and the reassurance of a safe learning environment where learners feel confident assessing their performance honestly without fear of being penalized or excluded in any way (Boud, 1995). It has also been suggested that students be provided with ample opportunities for discussion about the assessment process as well as plenty of opportunities to practice self-evaluation (Boud, 1995). In general, Boud (1995) suggests that in order to decrease resistance, educators must develop an effective implementation strategy that ". . . gains student commitment, links well with the subject matter, fits the context and forms part of a broader strategy for encouraging students to take greater responsibility for learning" (p. 189).

Results from McMahon's (2001) action research project further support the need to develop effective strategies for implementing self-assessment processes. In particular, McMahon focused on strategies for introducing self-assessment to teachers enrolled in an in-service certificate program. The research was conducted over a six year period and involved seven cohorts of students. Changes to strategies used to implement self-assessment were made after each cohort completed the course, based on feedback from the students. The findings showed that by the last cohort, which included 41 students, the number of students who were initially resistant to self-assessment were reduced. At the start of the course 16 participants were identified as resistant, 12 as neutral, and 13 as supportive. As the course concluded only 2 students remained resistant, 5 remained neutral, and the supportive group increased to 34. McMahon attributes part of the change to clear articulation of the criteria on which students were to assess their project through a well developed self-assessment schedule. The schedule was developed by McMahon

using the criteria that had previously been established and included in a student handbook for the specific learning project. One of the insights he gained was how important it is to pay attention to how one introduces self-assessment. McMahon suggests that educators need to be ready to encounter a wide range of reactions from students, be prepared to clearly articulate the purpose for including self-assessment, and discuss with students their perceptions of the criteria as well as their perceptions about assessment responsibilities in general.

In summary, given the benefits and challenges of learner self-evaluation outlined in the literature, it appears to be a valuable assessment method. However, there seems to be a need for further research into the learner's perspective of self-evaluation. According to Somervell (1993) there is little hard evidence that educators can draw on. He further contends that most of the opinions cited in the literature seem to be grounded in a qualitative appraisal of the process rather than focusing on quantifiable evidence. It is hopeful that this study will contribute to the growing body of literature on self-evaluation through the exploration of the following research questions: How do college students perceive the use of self-evaluation methods in credit courses? What factors influence students' willingness to engage in self-evaluation processes? What skills, learner attributes, or supports do students believe are needed to effectively self-evaluate as compared to what instructors believe students need? What factors related to self-evaluation influence students' readiness for self-directed learning? The methodology used to explore these questions and to conduct this study is described in the next chapter.

Chapter 3

RESEARCH DESIGN AND METHODOLOGY

This chapter presents information about how the study of college students' perceptions of self-evaluation was conducted. The description of the methods employed for this study will address the following six areas: (1) design of the study, (2) population and sample, (3) data collection procedures, (4) data analysis procedures, (5) validity and reliability, and (6) ethical considerations.

Design of the Study

The study can best be described as a descriptive and analytic exploration of how college students perceive the use of self-evaluation processes in an academic setting. This research was designed to utilize both quantitative and qualitative methods of data collection. The qualitative components of a research design are often associated with a discovery approach and the quantitative components of a research design are often associated with a verification approach. According to Creswell (1994) using a combination of methods is advantageous to the researcher when the purpose is to gain a better understanding of a concept being explored. A mixed method approach adds scope and breadth to the study (Greene, Caracelli & Graham, 1989).

After careful consideration of various research methods and their inherent strengths and weaknesses, I considered a mixed method approach to be an effective and efficient means of conducting this research. By combining two methods, quantitative and

qualitative, I received information that ranged from broad to specific perceptions of the use of self-evaluation in a college setting. This approach helped to garner the appropriate information to address the primary research question and the related subquestions.

The research was completed in two phases. Phase one focused on the development of two questionnaires for data collection. One questionnaire was for the students in the sample to complete and the second questionnaire was for the instructors in the sample to complete. After completing an initial review of the related literature to gain a more in-depth understanding of the topic and realizing a published instrument suitable to my research purpose was not available, the decision was made to develop the questionnaires to collect data specific to my research questions. The decision to use questionnaires in this study was also informed by the documented advantages of this data collection method. According to Gall, Borg, and Gall (1996) questionnaires are ". . . used extensively in educational research to collect information that is not directly observable" (p. 288). This type of information typically includes inquiry about experiences, feelings, attitudes, and perceptions of individuals about a specific phenomenon (Gall, Borg & Gall, 1996). One of the advantages of using a questionnaire is that the time required to collect the data is usually much less than time required for interviews. Knowing I wanted to survey a large sample about their perceptions of self-evaluation, the use of a questionnaire seemed a logical choice.

In order to learn what questions to ask and how to ask them, a focus group was used as the initial step in the questionnaire development (Krathwohl, 1998). Although focus groups originated in market research, they are now widely used in education and

social science research (Gall, Borg & Gall, 1996). Focus groups are usually utilized to learn how a group that represents a target population responds to a topic presented to them, thus helping to increase the researcher's understanding of the phenomenon being studied (Krathwohl, 1998). Another strength of focus group interviews reported by researchers is that the interactions among the participants seem to stimulate discussions that may not be revealed in individual interviews (Gall, Borg & Gall, 1996). The purpose of the focus group was to generate responses from the target population (college students) regarding their perceptions about the use of self-evaluation processes in academic courses based on their direct experiences with self-evaluation. Both the literature review and the results of the focus group informed the development of the questionnaires. During the developmental stage of the questionnaires, three graduate students from the Educational Policy Studies Department at the University of Alberta and three Grant MacEwan College students agreed to provide feedback on the clarity, wording, and format of the draft questionnaires. Once I was satisfied with the content and format of the questionnaires, a pilot study was completed to test the effectiveness and appropriateness of the questionnaires.

Phase two of the research design focused on obtaining the required sample, data collection, and data analysis. In addition to the Self-Evaluation Questionnaire (SEQ) and the Instructor Questionnaire developed by the researcher, a third instrument was used with the student sample. The Self-Directed Learning Readiness Scale (SDLRS) is a published instrument developed by Guglielmino in 1977 as part of her dissertation and was administered in conjunction with the SEQ. A detailed description of both phases of the

research design and the specific elements within each phase including the instruments used will follow the discussion on the population and sample.

Population and Sample

The target population for this research was college students with the accessible population drawn from Grant MacEwan College. Two sampling techniques were employed to determine the sample: (1) convenience sampling and (2) cluster sampling. The selected setting was convenient because the sample would be located at the researcher's workplace. Also, as an instructor at the College I had the advantage of knowing the context and contacts which potentially increase the likelihood of securing participants for the study (Gall, Borg & Gall, 1996).

Cluster sampling was used to reduce the time element and to provide a basis for comparison between classes. To identify the class clusters that would form the sub-samples in this study, letters were sent to 12 instructors at the College who were known to be interested in or were practicing innovative assessment methods (refer to Appendix D for the sample letter). Some of the instructors were known to the researcher, others were identified from a distribution list of those who attended an assessment learning circle meeting at the College. The letter contained a summary of the research study, my request for classes of participants, and the criteria for participation in the study. The criteria included instructor commitment to participate, the provision of 30 minutes class time for data collection, as well as the incorporation of a self-evaluation component in at least one of the courses being taught.

Upon receipt of only one response from the initial mail-out, follow-up telephone calls were placed by the researcher. This resulted in four additional agreements for participation in the study. In total, five class clusters were involved in the study resulting in a total sample of 94 students and 5 instructors. The classes represented four divisions within the College: Arts, Community Studies, Health, and Performing Arts.

Data Collection

The data collection for this study involved a total of five elements within the two phases of the research design. Phase I took place during March and April of 2000. Phase II began in late April 2000 and was completed during the first week of January 2001. A description of each element of the data collection follows.

Phase I: (1) Focus Group Interview

(2) Pilot Study

Phase II: (3) Distribution of student Self-Evaluation Questionnaire (SEQ)

(4) Distribution of the Self-Directed Learning Readiness Scale (SDLRS)

(5) Distribution of the Instructor Questionnaire

Focus Group Interview

As focus group interviews are typically small in size, I planned to have eight to ten participants involved. Volunteer participants were recruited from two classes within a college program known to include self-evaluation components in some of the courses. The only criteria for participation was enrollment in a credit course that included a self-

evaluation component. The instructor of the two classes identified agreed to provide class time for the researcher to explain the study as well as respond to questions students might have about it. Students in the two classes were provided a copy of the information letter which described the research study and their potential involvement (see Appendix A). The letter included a tear-off section for interested participants to complete indicating contact information and which part of the study they would like to participate in (focus group interview, pilot study of the questionnaire, or both). A total of 11 participants expressed interest in participating in this phase of the study, 6 for the focus group interview and 5 for the pilot of the questionnaire.

The focus group interview was held on March 6, 2000 from 2:15 to 3:30 p.m. at Grant MacEwan College where the students were enrolled. A meeting room was booked for the allotted time. The room contained a large oval table with comfortable upholstered chairs. Refreshments and muffins were provided to the participants. The tape recorder was set up in the middle of the table so that all voices were captured on tape. Only four participants were in attendance. As the participants arrived, the researcher recorded their background information including name, age, gender, and program of study. The participants were also asked to sign the Informed Consent Form (see Appendix B). The unexpected snow storm prevented the remaining two participants from attending. Those two participants contacted the researcher the next day and informed her of their decision to participate in the pilot of the questionnaires since they missed the focus group interview.

At about 2:30 p.m. the researcher thanked everyone for coming and began the

introductions. She explained her role as the moderator for the session which was to facilitate the discussion but to not actively participate in it. The researcher then described the participants' role by encouraging them to share their own perceptions about the use of self-evaluations in courses as well as their experiences with it. It was also explained that the interview questions will only be used to guide the discussion and participants should not feel restricted by the questions. The researcher briefly reviewed the research project and their involvement as well as reminded participants about the confidentiality of the discussion. None of the participants had any questions about the process.

The length of the focus group interview was approximately 60 minutes and was audio recorded. A semi-structured interview approach was used to obtain the data. This type of approach allows for the modification of the interview questions should information related to the research questions not be revealed during the interview as well as provides the option to probe participants for more depth to their responses (Berg, 1998; Gall, Borg & Gall, 1996). The interview guide included eight questions that were developed based on the researcher's teaching experience and related literature on self-evaluation (see Appendix C). During the interview the researcher used the questions on the interview guide to facilitate discussion and remained an observer of the process. All four participants appeared comfortable in sharing their perceptions and experiences. Upon completion of the focus group interview the researcher thanked the participants and briefly reviewed what would take place following the interview with regards to the data. The data analysis details are explained later in this chapter.

Pilot Study

As part of the questionnaire development, a pilot study was completed using a sample of 7 college students and 1 instructor. The sample represented one program of study at the college and consisted of 5 second year students and 2 first year students. The participants were volunteers from the same two classes from which the focus group participants were recruited. Both of these classes included a self-evaluation component and the instructor for the classes was known to the researcher as a colleague.

The student participants in the pilot study completed both the Self-Evaluation Questionnaire developed by the researcher (see Appendix H) and the Self-Directed Learning Readiness Scale, a published instrument, outside of class time. They were provided a return envelope addressed to the researcher's office at the college. The instructor completed the Instructor Questionnaire developed by the researcher and was also provided a return envelope. In addition to completing the questionnaires, the participants were asked to provide feedback on the questionnaire itself. They were asked to consider the appropriateness of the questions and to provide any suggestions for changes. The pilot testing was an important stage in verifying the validity and reliability of both the student Self-Evaluation Questionnaire and the Instructor Questionnaire. The pilot process also helped to identify possible problems with terminology, clarity of the questions, and the length of time it would take the participants to complete.

Self-Evaluation Questionnaire

As described earlier, the development of this questionnaire was based on the initial

literature review, the results of the focus group interview, and the pilot study. The questionnaire consists of a total of 43 questions divided into 5 sections labeled A through E (see Appendix H). Section A consists of six demographic questions. These questions related to the following areas: (1) college division of enrolment, (2) registration status, (3) age, (4) gender, (5) types of self-evaluation completed, and (6) level of experience with self-evaluation. The demographic questions were included in the hope that some comparisons could be conducted. Sections B, C, and D consist of questions that ask participants to reflect on their opinions and attitudes about self-evaluation in connection to their experiences with self-evaluation. The questions in these three sections use a Likert scale from 1 to 5 for the response and include additional space for respondents to record an explanation of their responses should they choose to do so. The last section, Section E, contains five open-ended questions directly related to participants' experiences with self-evaluation in college courses. Issues pertaining to the validity and reliability of this questionnaire are discussed later in this chapter.

It was estimated through the pilot study that, on average, this questionnaire would take approximately 20 minutes to complete. The decision was also made to distribute the questionnaire to participants for completion during class time in order to reduce the attrition rate associated with the return of completed questionnaires. The instructor was not present in the classroom while data were collected in each of the five classes.

Self-Directed Learning Readiness Scale

The Self-Directed Learning Readiness Scale (SDLRS) was administered to all the

student participants in this study in conjunction with the Self-Evaluation Questionnaire (SEQ) developed by the researcher. The purpose of including this instrument was to explore the relationship between self-evaluation and readiness for self-directed learning and more specifically, to determine if any variables related to self-evaluation could be used to predict SDLRS scores.

As previously described in Chapter 2, the SDLRS was developed by Guglielmino in 1977 as part of her dissertation. In its present form, the self-response questionnaire is comprised of a 58-item Likert scale. The items are based on skills and attitudes conventionally associated with self-directed learning. The instrument was designed to measure a respondent's perceived readiness to engage in self-directed learning. The scale yields one final score. To guide the interpretation process, there are five categories used to determine the level of readiness based on the respondent's score, as shown below in Table 3.1.

Table 3.1

SDLRS Scoring Categories

Score Range	Level of Readiness
Less than 176	Low
177 - 201	Below Average
202 - 226	Average
227 - 251	Above Average
252 - 290	High

As described by Guglielmino in the scoring and interpretation information included with the instrument, the average score for adults completing the scale is 214. As can be seen in Table 3.1, this score falls within the category of an average level of perceived readiness for self-directed learning. According to Guglielmino, persons with average SDLRS scores are more likely to be successful in more independent learning situations, but are not fully comfortable with all aspects of self-directed learning. For example, some learners may not feel confident in identifying their own learning needs or planning a process to meet their learning needs. Persons with low and below average levels of readiness tend to prefer traditional structured learning settings which typically involve a lecture style format. Persons with above average and high levels of perceived readiness for self-directed learning seem to prefer determining their own learning needs and identifying a process for learning that best meets their needs. Issues pertaining to the validity and reliability of this instrument are discussed later in this chapter.

Instructor Questionnaire

As previously described in the section on the study design, the development of the Instructor Questionnaire was informed by the initial literature review on self-evaluation, the focus group interview, and the pilot process (see Appendix I). The questionnaire contains a total of nine questions. There are four demographic questions asking the respondents to indicate the following: (1) number of years of teaching experience, (2) number of years instructor has been incorporating student self-evaluation in course(s) taught, (3) how the instructor learned about student self-evaluation, and (4) number of

courses taught that include student self-evaluation component(s). The demographic questions are followed by five open-ended questions, listed below, as well as a final question asking participants if they would be willing to have the researcher contact them by telephone should any clarification of their responses be required.

1. Please describe the skills you think students need to effectively engage in a self-evaluation process.
2. Please describe the types of self-evaluation methods you use in the courses you teach.
3. How do you introduce student self-evaluation in your courses?
4. Do you do anything to facilitate the process of self-evaluation with students and if so, what?
5. Please describe why you have chosen to use student self-evaluation methods in the courses you teach.

The instructor questionnaire was distributed during the same time that the data collection was completed for the individual classes. Each instructor was provided a copy of the instructor questionnaire and an informed consent form (see Appendix F). Instructors were asked to read and sign the consent form, complete the questionnaire, and return both to the researcher in the envelope provided. In all five classes, each instructor left the room while the students completed the questionnaires. Instructors returned their completed questionnaires within one week of distribution. Each returned questionnaire was coded with the class identifier (letter A, B, C, D, or E).

Data Analysis

Upon completion of the questionnaires (SEQ and SDLRS) by students in each of the five classes, the researcher numerically coded and entered the responses to the closed-ended questions in Sections A through D of the SEQ. With the assistance of C. Prokop from the Educational Policy Studies Department at the University of Alberta, the data were then verified and analyzed using the Statistical Package for the Social Sciences (SPSS, Version XI). In particular, percentage frequency distribution, mean ratings, and other descriptive statistics were used to present college students' opinions about self-evaluation and their experience with it. Factor analysis was employed to examine the underlying patterns of student responses on the SEQ. Resulting factor scores plus the total scores students obtained on the SDLRS were then used for correlation and multiple regression analyses. These were conducted to investigate whether students' perceived readiness to engage in self-directed learning, as measured by the SDLRS, could be predicted by any of the factors resulting from the factor analysis. This procedure was completed for both the entire sample and for each class of students in the study.

The SDLRS scores were entered by the researcher and analyzed by C. Prokop according to the scoring method that accompanies the instrument. Individual results were tabulated for each participant in the study resulting in a mean for the entire sample as well as for each of the five sub-samples.

With regards to the qualitative data, a first level content analysis was conducted for the data obtained from both the students and the instructors in each of the five classes.

Specifically, responses from the open-ended questions in Section E of the SEQ were categorized according to the topic of each question by listing the responses under each question heading for each class. Each category of responses was reviewed and coded according to patterns identified using colored index cards. The same process was used to analyze the data obtained from the Instructor Questionnaire, except that colored highlighter pens were used to code the patterns identified rather than index cards.

Validity and Reliability

The trustworthiness of the data was strengthened by using multiple data collection methods. Mono-operational bias should not be a concern because triangulation was achieved through the following data collection methods: a focus group interview, two researcher-developed questionnaires, and a published instrument (Gall, Borg & Gall, 1996). Pilot testing was also an important step in verifying the validity and reliability of the questionnaires.

Content and face validity of the questions in the student Self-Evaluation Questionnaire (SEQ) was determined by the researcher and through the pilot process. Validity of the SEQ was further enhanced by engaging in a review process with six reviewers (three graduate students and three college students). The SEQ was designed to explore the perceptions of students regarding self-evaluation processes in a college setting. No equivalent tool was found in the literature on self-evaluation or adult education. To find out whether this questionnaire would remain consistent over time can only be determined by further research using the same questionnaire.

Internal consistency of each of the four parts of the SEQ was established using a Cronbach alpha reliability analysis with the data collected from the students who participated in this study. Part A of the SEQ, which focused on demographic information and contained twelve items, yielded a reliability coefficient of .88. Part B, which focused on learner characteristics and also contained twelve items showed a reliability coefficient of .76. Part C, which focused on components of self-evaluation processes and had eleven items, yielded a reliability coefficient of .88. Part D, which consisted of nine items, showed a reliability coefficient of .86. This part of the SEQ contained questions which addressed students' experiences with self-evaluation processes. Overall, the reliability analysis presented acceptable results. Reliability coefficients ranging from .76 to .88 show that items within each of the four parts of the SEQ are highly correlated and measure a distinct dimension of student perception of self-evaluation. Ideally, internal consistency would have been established for each of the factors used as predictor variables in the regression analysis. However, as there were not enough items loading on each factor such an analysis was not considered meaningful.

The Self-Directed Learning Readiness Scale (SDLRS) was also used in this study. The SDLRS is a published instrument developed in 1977 as part of Guglielmino's dissertation research. There has been substantial controversy in the literature regarding the validity and the reliability of this instrument. Initially, the self-report questionnaire consisted of 41 Likert response items. In its present form, the scale consists of 58 items. The SDLRS has a reliability coefficient of .87, both for the original scale and the revised version (Guglielmino; Brockett, both cited in West & Bentley, 1990). Brockett (1985)

asserted that there are problems with the scale related to the construction and layout of the instrument in addition to underlying assumptions identified in the way in which the instrument defines self-directed readiness. He also raised questions regarding the appropriateness of this scale for contexts which include respondents with low educational levels.

Field (1989) was also highly critical of the SDLRS, claiming that the issues identified with the scale rest primarily on Guglielmino's original developmental work. He identified the following four areas of Guglielmino's research work that he believes has implications for the validity and reliability of the SDLRS: (1) the use of the Delphi technique as a basis for item generation, (2) the definitions used for the two terms, readiness and self-directed learning, (3) the use of negatively phrased items, and (4) the addition of new items without adequate validation testing. In addition, he also found twelve items which did not achieve a 0.3 correlation with the total score. Field's (1989) investigation into the reliability and validity of the SDLRS suggests that the scale measures a homogeneous construct that is not closely linked with self-directed learning readiness. This argument has also been supported by others such as Bonham (1991) who suggested that the scale appears to measure readiness for learning in general rather than readiness for self-directed learning.

In response to the criticism regarding the validity and reliability of the SDLRS, Guglielmino (1989) and others such as Long (1989) and McCune (1989) have highlighted errors and omissions in Field's (1989) argument. Some of the important points clarified include that the Delphi technique was not used for the selection of items but only to obtain

consensus about self-directed learner characteristics, that the reverse items are a way of ensuring that the respondent reads all items carefully, and that the additional items were properly validated. Guglielmino (1989) contends that despite some of the problems inherent in the development of any scale, "a large body of research supports the validity and reliability of the SDLRS" (p. 238). Although the use of this instrument has been criticized and inherent weaknesses identified, it continues to be used today in studies exploring the concept of self-direction in learning. The criticisms made against the SDLRS were taken into consideration in the design of this study, but given the lack of instruments available to measure perceived readiness for self-directed learning the decision was made to use this instrument for data collection.

Ethical Considerations

It was the goal of this researcher to conduct the research in a manner that protected the dignity and the well being of the participants. The study was conducted in conformity with the ethical guidelines of the University of Alberta, the Department of Educational Policy Studies, and Grant MacEwan College where the data collection took place. Ethics approval was granted from both institutions. Particular attention was given to consent, confidentiality, and anonymity of respondents.

All the participants in this study were provided with an information letter outlining the parameters of the study and their level of involvement (see Appendices D and E). Informed written consent was obtained from all the student and instructor participants in the study (see Appendices F and G). The signed consent forms have been filed separately

from the completed questionnaires in a locked filing cabinet. Participants were not misled about the purposes or procedures, or denied any information in connection with the study. Participants were advised verbally and in the information letter that their participation was voluntary and that they could personally withdraw or withdraw their data at any time. All participants were advised to contact the supervisor of the researcher in the event of any concerns or complaints. The name and telephone number of the supervisor was included in the information letter.

With regards to the completion of the questionnaires, the instructors were not present during the data collection period and participants were reassured that their instructors would not have access to the completed questionnaires. Participants were instructed not to include their name on the questionnaires unless they were interested in a potential follow-up interview in which case a section at the end of the questionnaire was to be completed. All completed questionnaires were assigned a numerical code for data entry purposes. In reporting the results, the data have either been aggregated or compiled across respondent groupings or simply attributed to an anonymous respondent unidentifiable by the context in which the data are presented.

Summary

The methodology for this research was a mixed method (quantitative and qualitative), two-phase design. Phase one included the development of two questionnaires, one for student participants and one for instructor participants, which were informed by the initial literature review, the focus group interview, and the pilot process.

Phase two included the data collection and analyses of the data. Three instruments were used to collect the data. The two questionnaires developed by the researcher, the student Self-Evaluation Questionnaire and the Instructor Questionnaire, were used to collect data on learners' perceptions of the use of self-evaluation processes as well as how self-evaluation processes are implemented in college courses. The Self-Directed Learning Readiness Scale (SDLRS) was used to collect data on students' perceived readiness for self-directed learning in order to identify predictor variables for SDLRS scores related to self-evaluation. Data collected in both phases of this research study were analyzed to seek information that would address the primary research question and the subquestions concerning college students' perceptions of the use of self-evaluation processes in credit courses. The findings from this study are presented in Chapter 4. A discussion of the research and any recommendations arising from it are provided in the final chapter.

Chapter 4

RESEARCH FINDINGS AND DISCUSSION

This chapter reports and discusses the findings of this study. First, the demographic data obtained from the participants are described as an introduction to this chapter and to provide a context for the data analysis. Then, descriptive statistics (frequency distributions as well as measures of central tendency) are reported for the two instruments used in this study to obtain data from the student participants, the Self-Directed Learning Readiness Scale (SDLRS) and the Self-Evaluation Questionnaire (SEQ). The results from the factor analysis of the SEQ are reported next. This is followed by a discussion of the findings of the regression analysis using the factor scores as predictor variables. Finally, the chapter concludes with a discussion about the qualitative data obtained from the open-ended questions on the SEQ that the student participants completed and the instructor data obtained from the Instructor Questionnaire.

Participant Demographics

The 94 students who participated in this study came from five different classes representing four divisions in Grant MacEwan College: Arts, Health, Community Studies, and Performing Arts. 84% of the participants were registered as full time learners at the college with the remaining 16% registered as part-time learners. 68% were registered in their first year of studies. 20% were registered in their second year of their studies and 12% were registered in their third year of studies. About half of the sample (54%) were in

their twenties and 18% were under the age of 20. The remaining 28% of participants ranged in age from 30s to 50s. The vast majority (82%) of the participants were female. Most participants indicated that they had completed less than five self-evaluations in each of the four categories: participation (59%), individual assignments (69%), group projects (67%), and field placement progress (61%).

Quantitative Data and Descriptive Statistics

The Self-Directed Learning Readiness Scale

The Self-Directed Learning Readiness Scale (SDLRS) was one of the two instruments the student participants were asked to complete as part of this study. As described in Chapter 3, the SDLRS is a 58 item self-response questionnaire developed by Guglielmino in 1977 to measure a respondent's perceived readiness to engage in self-directed learning. The scale yields one final score. In the scoring information that accompanies the instrument, Guglielmino 1977 reports a mean of 214. Results from this study are based on a sample of 94 respondents. The scores ranged from 152 to 258 with a mean of 216 and a standard deviation of 22.25. These scores are compatible with those reported by Guglielmino. If the scores fall between 202 and 226, the level of readiness is considered average. Scores falling between 227 and 261 indicate an above average level of readiness. Scores falling between 262 and 290 indicate a high level of readiness. Scores that fall below 202 indicate a low level of readiness.

Given the mean score of 216 and a standard deviation of 22.25, two thirds of participants have scores ranging from 193.75 to 238.25 which could be classified, by and

large, as an average level of readiness for self-directed learning. According to the scoring guide for the SDLRS, persons with average to above average scores are more likely to be successful in more independent learning situations but are not fully comfortable with being in a completely self-directed learning process.

The Self-Evaluation Questionnaire

In addition to the Self-Directed Learning Readiness Scale (SDLRS) the Self-Evaluation Questionnaire (SEQ) was administered to the student participants. This instrument was developed for specific use in this study. The SEQ consists of 43 questions in total. Six questions related to demographic information were included as well as 32 closed-ended questions using a Likert scale. In addition, five open-ended questions were included. The demographic section was referred to as section A, the closed-ended questions of the questionnaire were divided into sections B, C, and D, and the section of open-ended questions was referred to as section E. The results from the analysis of the qualitative data obtained from the open-ended questions will be reported following a discussion of the pertinent results from the analysis of the quantitative data. The complete results from the closed-ended questions in sections B, C, and D of the SEQ are listed in Appendix J.

In order to reduce the data obtained from the participants' responses to the 32 Likert-type items on the SEQ and to facilitate the reporting and interpretation of the quantitative data, a principal components factor analysis was conducted. Although the interpretation of the results is both a subjective and speculative process, factor analysis is a

useful method to identify the pattern of relationships among variables (Gall, Borg, & Gall, 1996; Kreber, 2000).

Factor Analysis

A principal components factor analysis was conducted for all items in sections B, C, and D of the Self-Evaluation Questionnaire (SEQ) resulting in a total of eight interpretable factors. The eight factors will be discussed separately in relation to the three sections of the questionnaire.

Section B of the SEQ contained twelve items. The participants were asked to rate these items according to level of importance in completing self-evaluations. Three factors with Eigenvalues greater than 1.00 were identified for this group of variables. Only items that loaded with .40 or higher were considered. Table 4.1 lists the variable loadings for each factor after the varimax rotation. As can be seen in Table 4.1, factor one is defined by the six items "having the capacity to think for oneself" (.754), "being committed to honesty" (.751), "having a sense of responsibility for one's own learning" (.686), "having a love for learning" (.611), "being committed to personal achievement" (.550), and "being able to think holistically" (.535). I labeled this factor Independent Learning Dispositions because each of the six items are related to Candy's (1991) profile of the autonomous learner which includes a composite list of qualities, competencies, attributes, and characteristics researchers have identified as being linked with successful independent learning.

The three variables loading most highly on factor two are "being self-motivated"

(.821), "being self-confident" (.617), and "being a self-directed learner" (.461). Each learner enters a learning experience with a set of assumptions, expectations, and personal and cultural characteristics (Cranton, 1992). There is a wide range of individual learner differences and the three items that loaded on this factor are possible attributes or characteristics of learners and therefore I chose to label this factor Learner Attributes.

Factor three is defined primarily by the three items, "being open to feedback from others" (.794), "being able to reflect on my learning process" (.608), and "having an informed understanding of the criteria for evaluation" (.554). I chose to label this factor Reflective Practice which may be defined as the analysis of one's own behaviors and beliefs as well as the challenging of others' ideas and attitudes (Brookfield, 1986). Each of the three items that loaded on this factor could be considered as components in the process of engaging in reflective practice as described in the definition.

Table 4.1

Varimax Factor Solution for Variables from Section B of the SEQ (n=87)

Section B Variables	Factors and Factor Loadings		
	1 Independent Learning Dispositions	2 Learner Attributes	3 Reflective Practice
16. Having the capacity to think for oneself is important	**.754**	0.186	0.148
15. Being committed to honesty	**.751**	9.937	-9.869
17. Having a sense of responsibility for one's own learning	**.686**	0.308	8.450

Table 4.1 - continued

Section B Variables	Factors and Factor Loadings		
	1 Independent Learning Dispositions	2 Learner Attributes	3 Reflective Practice
13. Having a love for learning	**.611**	4.084	0.361
14. Being committed to personal achievement	**.550**	0.472	0.344
18. Being able to think holistically (to see the whole as well as the parts)	**.535**	0.196	0.419
9. Being self-motivated	3.912	**.821**	4.586
10. Being self-confident	0.463	**.617**	-0.156
11. Being a self-directed learner	0.284	**.461**	.360
8. Being open to feedback from others	-1.756	1.700	**.794**
7. Being able to reflect on my learning process	0.458	1.137	**.608**
12. Having an informed understanding of the criteria for evaluation	0.152	0.530	**.554**
Percentage of Variance	25.8%	16.3%	15.9%

Section C of the SEQ contained eleven statements about self-evaluation processes for which participants were to indicate their level of agreement. Two factors with Eigenvalues greater than 1.00 were identified for these 11 items. Table 4.2 lists the variable loadings for each factor after the varimax rotation. As can be seen in Table 4.2, factor one is defined primarily by six items, "I have developed more confidence in myself through completing self-evaluations" (.821), "when I have the opportunity to evaluate myself in a course I put more effort into the course" (.796), "self-evaluation makes me feel more responsible for my own learning" (.768), "it is the instructor's responsibility to assess student learning and determine the final grade" (-.716), "self-evaluation should be a required component in a credit course" (.704), and "students' opinions about their participation in a course should be sought" (.412). In any given learning situation, the context in which learning takes place will influence learners' experience to varying degrees. The six items loading onto this factor refer to a context in which self-evaluation components are included. The degree of responsibility of both learners and teachers for particular aspects of learning such as assessment and grading of learning as well as participation are also part of the learning context. Because of this integral link I labeled this first factor Learning Context.

The five elements loading most highly on factor two are "self-evaluation offers students an opportunity to view and examine their learning processes" (.722), "students acquire valuable skills when provided the opportunity to assess their own learning in a course" (.657), "students should be involved in establishing criteria for self-evaluation in a course" (.656), "I would enjoy a course in which self-evaluation is required" (.629),

"students' opinions about the assignment of the final grade in a course should be sought" (.599). Within the various definitions of self-evaluation, it is implied that self-evaluation is a process in which learners engage in (Boud, 1995). The process plays a critical role because it has the potential to increase learners' motivation to continue learning and to know how to do so, to increase learners' ability to monitor their own performance and to take responsibility for their actions and judgements (Boud, 1995). The five items loading on this factor could be considered as goals for an effective self-evaluation process so I labeled this factor Process Goals.

Table 4.2

Varimax Factor Solution for Variables from Section C of the SEQ (n=91)

Section C Variables	Factors and Factor Loadings	
	1 Learning Context	2 Process Goals
27. I have developed more confidence in myself through completing self-evaluations	**.821**	0.315
26. When I have the opportunity to evaluate myself in a course I put more effort into the course	**.796**	0.334

Table 4.2 - continued

Section C Variables	Factors and Factor Loadings	
	1 Learning Context	2 Process Goals
28. Self-evaluation makes me feel more responsible for my own learning	**.768**	0.376
24. It is the instructor's responsibility to assess student learning and determine the final grade	**-.716**	0.149
25. Self-evaluation should be a required component	**.704**	0.459
21. Students' opinions about their participation in a course should be sought	**.412**	0.214
19. Self-evaluation offers students an opportunity to view and examine their learning processes	0.273	**.722**
23. Students acquire valuable skills when provided the opportunity to assess their own learning in a course	0.405	**.657**
29. Students should be involved in establishing criteria for self-evaluation in a course	-2.124	**.656**
20. I would enjoy a course in which self-evaluation is required	0.574	**.629**
22. Students' opinions about the assignment of the final grade in a course should be sought	0.217	**.599**
Percentage of Variance	33.6%	25.2%

Section D of the Self-Evaluation Questionnaire consists of nine items participants were asked to rate the degree to which they experienced those items in courses that included self-evaluations. Three factors with Eigenvalues greater than 1.00 were identified for this group of variables. Table 4.3 lists the variable loadings for each factor after the varimax rotation. The four items loading most highly on factor one are "the purpose of using self-evaluation was clear" (.858), "the process of how to complete the self-evaluation was made clear" (.857), "the criteria on which to base the self-evaluation were clear" (.771), and "students' understanding of self-evaluation was considered prior to the process being implemented" (.550). What these four items have in common is that they are all items that an instructor may consider when developing or adapting a course to include a self-evaluation component and therefore I labeled this factor Methodology.

Factor two is defined primarily by the following four items, "self-evaluation reinforced and enhanced my learning of the specific context or skills being assessed" (.747), "students were involved in establishing the criteria for the self-evaluation" (.724), "peer feedback was encouraged in the process of self-evaluation" (.682), and "students were informed at the beginning of courses that self-evaluation was an option" (.569). According to Cranton (1996), "within an organized setting, the degree of learner control is defined by the degree to which participants make decisions about the learning process" (p. 67). Learner control then refers to the amount of input learners have into a learning experience which may be viewed as a continuum ranging from no control to full control. Since each of the four loading items address student involvement in some way, I labeled this factor Learner Control.

Only one item loaded highly on factor three, "self-evaluation was imposed on students" (.865). This item seems opposite to factor two, Learner Control, so I labeled it Teacher Control.

Table 4.3

Varimax Factor Solution Variables from Section D of the SEQ (n=87)

Section D Variables	Factors and Factor Loadings		
	1 Methodology	2 Learner Control	3 Teacher Control
30. The purpose of using self-evaluation was clear	**.858**	0.184	0.181
31. The process of how to complete the self-evaluation was made clear	**.857**	0.138	0.126
32. The criteria on which to base the self-evaluation were clear	**.771**	0.358	-.973
34. Students' understanding of self-evaluation was considered prior to the process being implemented	**.550**	0.540	-0.303

Table 4.3 - continued

Section D Variables	Factors and Factor Loadings		
	1 Methodology	2 Learner Control	3 Teacher Control
38. Self-evaluation reinforced and enhanced my learning of the specific context or skills being assessed	0.242	**.747**	-6.030
33. Students were involved in establishing the criteria for the self-evaluation	0.298	**.724**	-0.308
37. Peer feedback was encouraged in the process of self-evaluation	-1.450	**.682**	0.485
36. Students were informed at the beginning of courses that self-evaluation was an option	0.194	**.569**	-2.240
35. Self-evaluation was imposed on students	0.148	-1.290	**.865**
Percentage of Variance	28.6%	26.2%	13.7%

Correlations

In order to investigate whether students' perceived readiness to engage in self-directed learning could be predicted by any of the eight factors identified, a stepwise multiple regression analysis was conducted. First, Pearson r correlations were calculated

for the 16 variables in order to measure the extent and significance of the relationship of each variable with the others. This calculation was based on the entire sample. Table 4.4 shows the Pearson r correlation coefficient for each of the 16 variables under consideration. The first six variables were determined from the demographic data and include: (1) age, (2) gender, (3) experience in self-evaluation of participation, (4) experience in self-evaluation of individual assignments, (5) experience in self-evaluation of group projects, and (6) experience in self-evaluation of field placement. The seventh variable was participants' decision to engage in self-evaluation if it were presented as an option. The next eight variables represent the factors which resulted from the factor analysis: (8) independent learning dispositions, (9) learner attributes, (10) reflective practice, (11) learning context/responsibility, (12) process goals, (13) methodology, (14) learner control, and (15) teacher control. The sixteenth and last variable represents the scores from the Self-Directed Learning Readiness Scale (SDLRS).

As can be seen in Table 4.4, there are moderate positive correlations between reflective practice (RP) and the SDLRS score ($r=.506$; $p<.01$) as well as between independent learning dispositions (IDL) and the SDLRS score ($r=.412$; $p<.01$). Low positive correlations were found between six other variables and the SDLRS score: (1) learner attributes (LA) ($r=.379$; $p<.01$), (2) age (AC) ($r=.338$;$p<.01$), (3) experience in self-evaluation of participation in a course (SEP) ($r=.322$; $p<.01$), (4) experience in self-evaluation of individual assignments (SEIA) ($r=.257$; $p<.05$), (5) process goals (PG) ($r=.238$; $p<.05$), and (6) experience in self-evaluation of group projects (SEGP) ($r=.235$; $p<.05$).

Table 4.4. Pearson r Correlations Among 16 Variables for the Entire Sample (n=80)

	AC	GC	SEP	SEIA	SEGP	SEFP	DPSE	ILD	LA	RP	LCR	PG	M	LC	TC	SDLRS
AC[1]	--	.094	.025	.147	.047	.009	-.051	.236*	.257*	.375**	.092	.219	-.122	-.111	.189	.338**
GC[2]		--	.023	.149	-.014	.172	-.001	-.032	.120	-.071	.111	.096	-.052	-.060	.068	-.020
SEP[3]			--	.380**	.242*	.567**	.213	-.080	-.001	-.077	.058	-.260*	-.098	-.202	.201	.322*
SEIA[4]				--	.424**	.296**	.090	-.030	.038	.050	.172	.014	-.011	.059	-.040	.257*
SEGP[5]					--	.245*	.049	.016	.038	.053	.124	.049	.134	.252*	-.227*	.235*
SEFP[6]						--	.126	-.133	-.024	-.311**	-.128	-.278*	.016	.060	.219	.085
DPSE[7]							--	-.012	-.200	-.205	-.560**	-.585**	-.113	-.186	.179	-.029
ILD[8]								--	.552**	.541**	.176	.303**	-.003	-.036	-.077	.412**
LA[9]									--	.351**	.301**	.323**	.143	.130	.039	.379**
RP[10]										--	.406**	.443**	-.075	-.025	-.035	.506**
LCR[11]											--	.672**	.043	.270*	-.319	.120
PG[12]												--	.110	.276*	-.155	.238*
M[13]													--	.714**	.103	-.037
LC[14]														--	-.072	-.142
TC[15]															--	.047
SDLRS[16]																--

*p<0.05; **p<0.01

Table 4.4 - continued

[1]Age Category

[2]Gender Category

[3]Self-Evaluation of Participation

[4]Self-Evaluation of Individual Assignments

[5]Self-Evaluation of Group Projects

[6]Self-Evaluation of Field Placement

[7]Decision to Participate in Self-Evaluation

[8]Independent Learning Dispositions (Factor 1, Section B)

[9]Learner Attributes (Factor 2, Section B)

[10]Reflective Practice (Factor 3, Section B)

[11]Learning Context/Responsibility (Factor 1, Section C)

[12]Process Goals (Factor 2, Section C)

[13]Methodology (Factor 1, Section D)

[14]Learner Control (Factor 2, Section D)

[15]Teacher Control (Factor 3, Section D)

[16]Self-Directed Learning Readiness Scale

These correlations provided some confidence in the hypothesis that skills in reflective practice, independent learning dispositions, learner attributes, process goals, and experience in completing self-evaluations may account for some proportion of the variance in SDLRS scores. In order to test this hypothesis a stepwise multiple regression analysis was conducted in which self-directed learning readiness served as the criterion variable and the other 15 variables as predictor variables.

Stepwise Regression Analysis

As can be seen in Table 4.5, reflective practice (RP) entered the regression equation at the first step and accounted for 26% of the total variance. Students' experience in self-evaluation of their level of participation (SEP) in a course entered the regression equation at the second step and accounted for an additional 13% of the variance. Learner attributes (LA) entered the regression equation at the third step and accounted for an additional 4% of the variance. In the prediction of SDLRS scores no other variables met the criterion for entering the regression equation. Although the five variables, age, students' level of experience in self-evaluation of individual assignments and group projects, independent learning dispositions, and process goals correlated significantly with SDLRS scores (Pearson $r=.338$, $p<.01$; Pearson $r=.257$, $p<.01$; and Pearson $r=.235$, $p<.05$; Pearson $r=.412$, $p<.05$; Pearson $r=.238$, $p<.05$), they did not account for any additional variance.

We can infer that age (AC) did not meet the criterion for entering the regression equation because it correlated with reflective practice (RP) which had a higher correlation

(.506) with SDLRS than age (.338). Age also correlated with learner attributes (LA) which had a higher correlation (.379) with SDLRS than age (.338). We can also infer that although students' level of experience in self-evaluation of both individual assignments (SEIA) and group projects (SEGP) correlated significantly with SDLRS (.257 and .235) they did not meet the criterion for entering the regression equation because both correlated with students' level of experience in self-evaluation of participation in a course (SEP) which correlated more highly with SDLRS (.322). Independent learning dispositions (ILD) correlated with SDLRS (.412) but did not meet the criterion for entering the regression equation because it also correlated with both LA (.552) and RP (.541) both of which entered the regression equation with a higher correlation. Process goals (PG) also correlated with SDLRS (.238) but did not meet the criterion for entering the regression equation because it correlated with both LA (.323) and RP (.443) both of which entered the regression equation with a higher correlation. The data suggest that together, (1) skill in reflective practice, (2) students' level of experience in evaluating their participation, and (3) learner attributes appear to be moderate predictors of self-directed learning readiness, accounting for 43% of the total variance.

Table 4.5

Results of Stepwise Regression Predicting SDLRS Scores for Entire Sample (n=80)

Step	Variable	Multiple R square	F change	f
1	RP[1]	.26	26.86	.00
2	SEP[2]	.39	16.41	.00
3	LA[3]	.43	5.60	.02

[1]Reflective Practice

[2]Self-Evaluation of Participation in a Course

[3]Learner Attributes

Class by Class Correlations and Regression

As described earlier, data were collected from five classes within four divisions of the College. In order to detect any differences between these classes as to whether students' perceived readiness to engage in self-directed learning could be predicted by any of the eight factors identified, a stepwise multiple regression analysis was conducted for each class. The same process used for the entire sample was used for the analysis of each class set of data. First, Pearson r correlations were calculated for the 16 variables in order to measure the extent and significance of the relationship of each variable with the others.

A table for each class shows the Pearson r correlation coefficient for each of the 16 variables under consideration. The first six variables were determined from the

demographic data and include: (1) age, (2) gender, (3) experience in self-evaluation of participation, (4) experience in self-evaluation of individual assignments, (5) experience in self-evaluation of group projects, and (6) experience in self-evaluation of field placement. The seventh variable was participants' decision to engage in self-evaluation if it were presented as an option. The next eight variables represent the factors which resulted from the factor analysis: (8) independent learning dispositions, (9) learner attributes, (10) reflective practice, (11) learning context/responsibility, (12) process goals, (13) methodology, (14) learner control, and (15) teacher control. The sixteenth and last variable represents the scores from the Self-Directed Learning Readiness Scale (SDLRS).

Class A

Table 4.6 shows the Pearson r correlation coefficient for each of the 16 variables under consideration. No significant correlations were found between any of the predictor variables and the SDLRS score for Class A.

Class B

Table 4.7 shows the Pearson r correlation coefficient for each of the 16 variables under consideration. There is a moderate positive correlation between learner attributes (LA) and the SDLRS score ($r=.563$; $p<.05$). A moderate positive correlation was also found between process goals (PG) and the SDLRS score ($r=.534$; $p<.05$). These correlations provided some confidence in the hypothesis that learner attributes and the goals for effective self-evaluation processes may account for some proportion of the

Table 4.6. Pearson r Correlations Among 16 Variables for Sub-Sample, Class A (n= 17)

	AC	GC	SEP	SEIA	SEGP	SEFP	DPSE	ILD	LA	RP	LCR	PG	M	LC	TC	SDLRS
AC[1]	--	.590*	-.300	-.254	-.358	-.174	-.307	.146	-.214	.577*	.305	.446	-.497*	-.423	.196	.007
GC[2]		--	.083	-.169	.032	.540*	-.436	.180	.153	.420	.535*	.429	-.385	-.123	-.169	.239
SEP[3]			--	.847**	.723**	.350	.025	.014	.087	.158	.205	-.148	-.084	.078	-.325	.399
SEIA[4]				--	.772**	-.091	.022	-.185	-.066	.050	.055	-.154	-.007	.153	-.417	.388
SEGP[5]					--	.309	-.073	-.205	.065	-.168	.167	-.057	.240	.297	-.508*	.425
SEFP[6]						--	-.236	.008	.146	-.082	.361	.128	.082	.144	-.091	.092
DPSE[7]							--	.283	-.170	.019	-.617**	-.690**	-.183	-.499*	.204	.379
ILD[8]								--	.320	.711**	.308	.259	-.285	-.138	-.061	.164
LA[9]									--	.066	.221	.064	.278	.345	-.205	.104
RP[10]										--	.494*	.319	-.498*	-.293	-.035	.192
LCR[11]											--	.729**	-.212	.256	-.435	-.220
PG[12]												--	-.085	.329	-.154	-.277
M[13]													--	.715**	.024	-.338
LC[14]														--	-.309	-.345
TC[15]															--	-.263
SDLRS[16]																--

*p<0.05; **p<0.01

Table 4.6 - continued

[1]Age Category

[2]Gender Category

[3]Self-Evaluation of Participation

[4]Self-Evaluation of Individual Assignments

[5]Self-Evaluation of Group Projects

[6]Self-Evaluation of Field Placement

[7]Decision to Participate in Self-Evaluation

[8]Independent Learning Dispositions (Factor 1, Section B)

[9]Learner Attributes (Factor 2, Section B)

[10]Reflective Practice (Factor 3, Section B)

[11]Learning Context/Responsibility (Factor 1, Section C)

[12]Process Goals (Factor 2, Section C)

[13]Methodology (Factor 1, Section D)

[14]Learner Control (Factor 2, Section D)

[15]Teacher Control (Factor 3, Section D)

[16]Self-Directed Learning Readiness Scale

Table 4.7. Pearson r Correlations Among 16 Variables for Sub-Sample, Class B (n= 17)

	AC	GC	SEP	SEIA	SEGP	SEFP	DPSE	ILD	LA	RP	LCR	PG	M	LC	TC	SDLRS
AC[1]	--	.323	.253	.410	-.189	-.070	-.204	.168	.317	.473	.502*	.112	-.037	-.121	-.193	.335
GC[2]		--	.214	.523*	-.203	-.011	.245	.144	.276	-.010	.050	-.069	.297	-.209	.195	.200
SEP[3]			--	.435	.027	.679**	.225	.039	.137	-.067	.024	-.239	.041	.036	.252	.396
SEIA[4]				--	-.157	.434	.191	.028	.069	-.208	.069	-.223	-.201	-.163	-.083	.112
SEGP[5]					--	.368	-.022	-.165	-.313	-.120	.084	-.017	.328	.816**	-.268	-.343
SEFP[6]						--	.180	-.150	-.106	-.494*	-.141	-.239	.268	.376	.062	.182
DPSE[7]							--	-.281	-.390	-.275	-.706**	-.512*	-.204	-.247	.180	-.064
ILD[8]								--	.761**	.602*	.419	.697**	.270	.221	-.223	.450
LA[9]									--	.497*	.461	.596*	.277	-.044	-.056	.563*
RP[10]										--	.581*	.644**	.056	.158	-.181	.463
LCR[11]											--	.689**	.217	.257	-.257	.463
PG[12]												--	.426	.328	-.119	.534*
M[13]													--	.542*	.126	.312
LC[14]														--	-.329	-.022
TC[15]															--	.083
SDLRS[16]																--

*p<0.05; **p<0.01

Table 4.7 - continued

[1]Age Category

[2]Gender Category

[3]Self-Evaluation of Participation

[4]Self-Evaluation of Individual Assignments

[5]Self-Evaluation of Group Projects

[6]Self-Evaluation of Field Placement

[7]Decision to Participate in Self-Evaluation

[8]Independent Learning Dispositions (Factor 1, Section B)

[9]Learner Attributes (Factor 2, Section B)

[10]Reflective Practice (Factor 3, Section B)

[11]Learning Context/Responsibility (Factor 1, Section C)

[12]Process Goals (Factor 2, Section C)

[13]Methodology (Factor 1, Section D)

[14]Learner Control (Factor 2, Section D)

[15]Teacher Control (Factor 3, Section D)

[16]Self-Directed Learning Readiness Scale

variance in SDLRS scores. In order to test this hypothesis a stepwise multiple regression analysis was conducted in which self-directed learning readiness served as the criterion variable and the other 15 variables as predictor variables.

As can be seen in Table 4.8, learner attributes (LA) was the only variable that entered the regression equation and accounted for 32% of the total variance. Even though process goals (PG) correlated significantly with SDLRS scores (Pearson r=.534; p<.05) it did not account for any additional variance. We can infer that process goals did not meet the criterion for entering the regression equation because it correlated with learner attributes (LA) which had a higher correlation (.563) with SDLRS. The data suggest that for Class B, learner attributes is the only predictor of students' perceived readiness for self-directed learning, accounting for 32% of the total variance.

Table 4.8

Results of Stepwise Regression Predicting SDLRS Scores for Class B (n=17)

Step	Variable	Multiple R square	F change	f
1	LA[1]	.32	6.97	.019

[1]Learner Attributes

Class C

Table 4.9 shows the Pearson r correlation coefficient for each of the 16 variables under consideration. Moderate positive correlations were found between five of the variables and the SDLRS score: (1) students' level of experience in self-evaluation of group projects (SEGP) ($r=.719$; $p<.05$), (2) reflective practice (RP) ($r=.685$; $p<.05$), (3) students' level of experience in self-evaluation of individual assignments (SEIA) ($r=.684$; $p<.05$), (4) process goals (PG) ($r=.662$; $p<.05$), and (5) students' level of experience in self-evaluation of their participation in a course (SEP) ($r=.657$; $p<.05$). These correlations provided some confidence in the hypothesis that students' level of experience in self-evaluation, their skills in reflective practice, and the goals for effective self-evaluation processes may account for some proportion of the variance in SDLRS scores. In order to test this hypothesis a stepwise multiple regression analysis was conducted in which self-directed learning readiness served as the criterion variable and the other 15 variables as predictor variables.

As can be seen in Table 4.10 students' level of experience in self-evaluation of group projects (SEGP) entered the regression equation at the first step and accounted for 52% of the total variance. Reflective practice (RP) entered the regression equation at the second step and accounted for an additional 22% of the variance. Process goals (PG) entered the regression equation at the third step and accounted for an additional 19% of the variance.

In the prediction of SDLRS scores no other variables met the criterion for entering the regression equation. Even though the two variables, students' level of experience in

Table 4.9. Pearson r Correlations Among 16 Variables for Sub-Sample, Class C (n= 11)

	AC	GC	SEP	SEIA	SEGP	SEFP	DPSE	ILD	LA	RP	LCR	PG	M	LC	TC	SDLRS
AC[1]	--	-.036	.187	.667*	.445	.363	.390	.174	.400	.039	.035	.320	-.227	.062	-.030	.387
GC[2]		--	-.194	-.184	-.194	-.100	.418	.481	.403	-.089	-.430	-.599	-.276	-.394	-.082	-.514
SEP[3]			--	.427	.542	-.194	-.039	-.147	.178	.333	.472	.435	-.233	-.277	-.353	.657*
SEIA[4]				--	.949**	.625*	.044	-.037	-.031	.268	.324	.413	-.164	-.136	-.040	.684*
SEGP[5]					--	.516	-.039	-.057	-.123	.333	.406	.435	-.158	-.216	-.159	.719*
SEFP[6]						--	-.239	-.215	-.064	-.089	-.026	.225	.308	.171	.219	.239
DPSE[7]							--	.651*	.545	-.213	-.242	-.349	-.800**	-.548	-.016	-.265
ILD[8]								--	.425	.279	-.030	-.226	-.742**	-.694*	-.519	-.015
LA[9]									--	.026	-.158	.003	-.349	-.231	-.371	.026
RP[10]										--	.171	.053	-.266	-.301	-.394	.685*
LCR[11]											--	.765**	.032	-.011	-.556	.575
PG[12]												--	.340	.363	-.536	.662*
M[13]													--	.875**	.157	-.105
LC[14]														--	.244	-.106
TC[15]															--	-.448
SDLRS[16]																--

*p<0.05; **p<0.01

Table 4.9 - continued

[1]Age Category

[2]Gender Category

[3]Self-Evaluation of Participation

[4]Self-Evaluation of Individual Assignments

[5]Self-Evaluation of Group Projects

[6]Self-Evaluation of Field Placement

[7]Decision to Participate in Self-Evaluation

[8]Independent Learning Dispositions (Factor 1, Section B)

[9]Learner Attributes (Factor 2, Section B)

[10]Reflective Practice (Factor 3, Section B)

[11]Learning Context/Responsibility (Factor 1, Section C)

[12]Process Goals (Factor 2, Section C)

[13]Methodology (Factor 1, Section D)

[14]Learner Control (Factor 2, Section D)

[15]Teacher Control (Factor 3, Section D)

[16]Self-Directed Learning Readiness Scale

self-evaluation of their participation in a course (SEP) and in self-evaluation of individual assignments (SEIA), correlated significantly with SDLRS scores (Pearson r=.657; p<.05) and Pearson r=.684; p<.05), they did not account for any additional variance. We can infer that SEIA did not meet the criterion for entering the regression equation because it correlated with SEGP which had a higher correlation (.719) with SDLRS. We can also infer that SEP did not meet the criterion for entering the regression equation because it had the lowest correlation of the five variables (.657) and only three variables are entered in the regression equation. The data suggest that together, (1) students' level of experience in self-evaluation of group projects, (2) skills in reflective practice, and (3) goals of the self-evaluation process appear to be a strong predictor of students' perceived readiness for self-directed learning in Class C, accounting for 94% of the total variance.

Table 4.10

Results of Stepwise Regression Predicting SDLRS Scores for Class C (n=11)

Step	Variable	Multiple R square	F change	f
1	SEGP[1]	.52	9.63	.01
2	RP[2]	.74	6.87	.03
3	PG[3]	.94	21.19	.02

[1]Self-Evaluation of Group Projects

[2]Reflective Practice

[3]Process Goals

Class D

Table 4.11 shows the Pearson r correlation coefficient for each of the 16 variables under consideration. There is a strong positive correlation between independent learning dispositions (ILD) and the SDLRS score ($r=.721$; $p<.01$). A second strong positive correlation was also identified between learner attributes (LA) and the SDLRS score ($r=.718$; $p<.01$). These correlations provided some confidence in the hypothesis that independent learning dispositions and learner attributes may account for some proportion of the variance in the SDLRS scores. In order to test this hypothesis a stepwise multiple regression analysis was conducted in which self-directed learning readiness served as the criterion variable and the other 15 variables as predictor variables.

As can be seen in Table 4.12 independent learning dispositions (ILD) entered the regression equation at the first step and accounted for 52% of the total variance. Learner attributes (LA) entered the regression equation at the second step and accounted for an additional 13% of the variance. In the prediction of SDLRS scores no other variables met the criterion for entering the regression equation The data suggest that together, independent learning dispositions and learner attributes appear to be a moderate predictor of students' perceived readiness for self-directed learning in Class D, accounting for 65% of the total variance.

Table 4.11. Pearson r Correlations Among 16 Variables for Sub-Sample, Class D (n= 20)

	AC	GC	SEP	SEIA	SEGP	SEFP	DPSE	ILD	LA	RP	LCR	PG	M	LC	TC	SDLRS
AC[1]	--	.373	.208	.302	.208	.302	.242	-.053	.320	.127	-.147	-.177	.028	-.010	.371	.196
GC[2]		--	-.150	.509*	.350	.145	-.023	.012	.293	-.146	.067	.278	.091	.185	.403	.120
SEP[3]			--	-.076	-.053	.688**	.313	.294	.053	-.222	-.489*	-.669**	.000	-.320	.401	.293
SEIA[4]				--	.688**	.444*	.105	.280	.295	.297	.253	.227	.186	.254	.259	.058
SEGP[5]					--	.688**	.313	-.009	.053	-.051	-.037	-.080	.064	.208	-.045	-.154
SEFP[6]						--	.454*	.207	.076	-.198	-.382	-.544*	.046	-.081	.259	.101
DPSE[7]							--	-.038	-.313	-.242	-.725**	-.767**	.175	.122	.367	-.165
ILD[8]								--	.607**	.387	.089	.051	-.146	-.321	.223	.721**
LA[9]									--	.368	.364	.366	.036	-.019	.331	.718**
RP[10]										--	.458*	.419	-.310	-.215	-.043	.428
LCR[11]											--	.817**	-.194	-.015	-.368	.122
PG[12]												--	-.104	.170	-.192	.102
M[13]													--	.867**	.473*	-.257
LC[14]														--	.399	-.328
TC[15]															--	.306
SDLRS[16]																--

*p<0.05; **p<0.01

Table 4.11 - continued

[1]Age Category

[2]Gender Category

[3]Self-Evaluation of Participation

[4]Self-Evaluation of Individual Assignments

[5]Self-Evaluation of Group Projects

[6]Self-Evaluation of Field Placement

[7]Decision to Participate in Self-Evaluation

[8]Independent Learning Dispositions (Factor 1, Section B)

[9]Learner Attributes (Factor 2, Section B)

[10]Reflective Practice (Factor 3, Section B)

[11]Learning Context/Responsibility (Factor 1, Section C)

[12]Process Goals (Factor 2, Section C)

[13]Methodology (Factor 1, Section D)

[14]Learner Control (Factor 2, Section D)

[15]Teacher Control (Factor 3, Section D)

[16]Self-Directed Learning Readiness Scale

Table 4.12

Results of Stepwise Regression Predicting SDLRS Scores for Class D (n=20)

Step	Variable	Multiple R square	F change	f
1	ILD[1]	.52	19.53	.00
2	LA[2]	.65	5.97	.03

[1]Independent Learning Dispositions

[2]Learner Attributes

Class E

Table 4.13 shows the Pearson r correlation coefficient for each of the 16 variables under consideration. One of the variables, students' level of experience in self-evaluation of individual assignments (SEIA), had to be eliminated because it was identified as a constant variable. We can infer that all the students in this class recorded the same response to the question therefore yielding no variation. As can be seen in the table, the only correlation identified is a moderate positive one between reflective practice (RP) and the SDLRS score ($r=.647$; $p<.01$). This correlation provided some confidence in the hypothesis that skills in reflective practice may account for some proportion of the variance in SDLRS scores. In order to test this hypothesis a stepwise multiple regression analysis was conducted in which self-directed learning readiness served as the criterion variable and the other 15 variables as predictor variables.

As can be seen in Table 4.14 reflective practice (RP) was the only variable to enter

Table 4.13. Pearson r Correlations Among 16 Variables for Sub-Sample, Class E (n= 15)

	AC	GC	SEP	SEIA	SEGP	SEFP	DPSE	ILD	LA	RP	LCR	PG	M	LC	TC	SDLRS
AC[1]	--	-.503	-.269		.043	-.106	-.254	.265	.313	-.010	-.352	.016	-.397	-.486	.176	.192
GC[2]		--	-.134		.075	.431	.000	-.413	-.385	-.279	.108	-.110	.000	.255	-.408	-.482
SEP[3]			--		.443	-.099	.378	.163	-.343	.037	-.520*	-.059	.037	-.237	.000	.341
SEIA[4]																
SEGP[5]					--	.334	.213	.206	.155	-.231	-.141	-.050	-.229	.049	-.369	.063
SEFP[6]						--	-.261	.159	.189	-.206	.035	-.217	.000	.119	-.151	-.017
DPSE[7]							--	-.102	-.363	-.345	-.306	-.467	.098	.148	.000	-.186
ILD[8]								--	.230	.403	-.300	-.142	-.203	-.197	.352	.444
LA[9]									--	.232	.443	.000	.135	.165	.126	.024
RP[10]										--	.120	.261	.067	-.101	.597*	.647**
LCR[11]											--	.298	.468	.519*	-.176	-.207
PG[12]												--	.182	.065	-.269	.199
M[13]													--	.339	.000	-.021
LC[14]														--	-.415	-.101
TC[15]															--	.325
SDLRS[16]																--

*p<0.05; **p<0.01

Table 4.13 - continued

[1]Age Category

[2]Gender Category

[3]Self-Evaluation of Participation

[4]Self-Evaluation of Individual Assignments

[5]Self-Evaluation of Group Projects

[6]Self-Evaluation of Field Placement

[7]Decision to Participate in Self-Evaluation

[8]Independent Learning Dispositions (Factor 1, Section B)

[9]Learner Attributes (Factor 2, Section B)

[10]Reflective Practice (Factor 3, Section B)

[11]Learning Context/Responsibility (Factor 1, Section C)

[12]Process Goals (Factor 2, Section C)

[13]Methodology (Factor 1, Section D)

[14]Learner Control (Factor 2, Section D)

[15]Teacher Control (Factor 3, Section D)

[16]Self-Directed Learning Readiness Scale

the regression equation and accounted for 42% of the variance. Skills in reflective practice appears to be a moderate predictor of students' perceived readiness for self-directed learning in Class E.

Table 4.14

Results of Stepwise Regression Predicting SDLRS Scores for Class E (n=15)

Step	Variable	Multiple R square	F change	f
1	RP[1]	.42	9.37	.01

[1]Reflective Practice

Qualitative Data

Qualitative data were obtained from the student participants and instructors from all five classes in the sample. Two purposes for the use of these data were identified for this study. One purpose was to examine the data for possible explanations regarding similarities and differences in the predictor variables for Self-Directed Learning Readiness Scale (SDLRS) scores identified for each of the five classes as a result of the regression analyses. The second purpose was to gain insight into how students perceive the use of self-evaluation in college courses to identify variables that may contribute to effective implementation of self-evaluation processes.

The student participant data were obtained from the Self-Evaluation Questionnaire (SEQ) which lists five open-ended questions requesting participants to respond in writing (see Appendix H). The questions are listed below.

1. What have been the most enjoyable aspects of engaging in a process of self-evaluation in college courses you have taken?
2. What have been the least enjoyable aspects of engaging in a process of self-evaluation in college courses you have taken?
3. Please describe the skills that have helped you complete self-evaluations.
4. Please describe the supports you received to assist you in completing self-evaluations.
5. If a self-evaluation process was optional in your college courses, would you choose to participate in it and why?

Data from the five instructors were obtained from the Instructor Questionnaire (see Appendix I). The questionnaire contained four demographic questions and five open-ended questions. The open-ended questions are listed below.

1. Please describe the skills you think students need to effectively engage in a self-evaluation process.
2. Please describe the types of self-evaluation methods you use in the courses you teach.
3. How do you introduce student self-evaluation in your courses?

4. Do you do anything to facilitate the process of self-evaluation with students and if so, what?

5. Please describe why you have chosen to use student self-evaluation methods in the courses you teach.

A first level content analysis was conducted for the data obtained from both the students and the instructors of each of the five classes. Specifically, responses from the open-ended questions on the SEQ were categorized according to the topic of each question by listing the responses under each question heading for each class. Each category of responses was reviewed and coded according to patterns identified using colored index cards. The same process was used to analyze the data obtained from the Instructor Questionnaire, except that colored highlighter pens were used to code the patterns identified rather than index cards. These data have been examined for possible explanations for the similarities and differences found in the predictor variables identified for self-directed learning readiness. These findings will be discussed first, followed by a discussion on variables identified in the qualitative data that may be linked to effective implementation of self-evaluation processes.

Contextual Influences on Self-Directed Learning Readiness

From the regression analysis completed on the entire sample, three variables were identified as a predictor of SDLRS scores: Skills in reflective practice, students' level of experience in evaluation of their participation in a course, and learner attributes. In the

class by class analyses, one of the three variables from the entire sample, skills in reflective practice, accounted for some degree of variance in two of the five classes (Class C and Class E) and another of the variables, learner attributes, accounted for some degree of variance in two other classes (Class B and Class D). In one of the classes (Class A) no predictor variables were identified in the regression analysis.

For Class A, it could be inferred that no significant correlations were found between any of the predictors and the SDLRS score because of the wide range of responses from the participants in this class. Interestingly, the instructor from this class was the only one of the five instructors in the sample who indicated on the Instructor Questionnaire less than five years experience with the inclusion of self-evaluation components in courses taught. The other four instructors indicated that they had ten or more years of experience in this area. The possibility exists that the level of experience of instructors with regards to implementing self-evaluation processes may influence students' perceptions about self-evaluation which may in turn influence students' perceived readiness for self-directed learning. A less experienced instructor may be experimenting with different types of self-evaluation processes with students and has not yet found a process that works best or may lack the knowledge of how to effectively implement self-evaluation processes.

The qualitative data from both the students and the instructors were reviewed to determine a possible explanation for the differences found between the classes with regards to the predictor variables. No revealing differences were found between the classes in the responses from the students that could provide a possible explanation for the

class differences identified. However, the instructor data did provide some insights into why these differences exist between classes with regards to predictor variables for perceived readiness for self-directed learning.

The predictor variable that was common to both Class C and Class E was reflective practice. The instructor from Class C and the instructor from Class E both indicated that self-evaluation was an appropriate assessment method for their courses because of the connection to the helping profession. Both instructors alluded to a "natural fit" between self-evaluation and the content of their courses. It has been documented in the literature that "self assessment has to be compatible with the nature of the course of which it is a part, otherwise it can easily be seen as an isolated exercise or mere add-on that is not significant for the course of study" (Boud, 1995, p. 189). In describing how they introduce and facilitate self-evaluation in their classes, both instructors indicated that they focused on the "process rather than the product". Neither instructor explained their response, however, they both described how they have integrated self-evaluation into their courses and both emphasized that they do not use it as an "add-on" task at the end of the course. It could be inferred that the process they were describing is the integration of self-evaluation into the course and how students are involved in the learning process. For example, in each of these two classes, students set goals at the beginning of the course and reflect on their progress throughout the course. The instructors seem to focus on how students are learning and progressing throughout the course rather than only on the final self-evaluation task, which may be described as the product or outcome.

Furthermore, when asked about the skills students need to effectively self-evaluate,

both instructors listed the ability to be "self-reflective" and to "reflect on both experience and thoughts/concepts" as essential. Both instructors indicated that they encourage active participation of students in evaluation and learning through the provision of a "safe learning environment" that "supports reflection and goal-setting". Being reflective and self-aware are competencies that have been linked with successful self-directed learning (Candy, 1991). There is some evidence in the literature suggesting that in order to effectively engage in reflective practice, feedback from others about one's performance in a course is essential as well as having a clear understanding of the course expectations (Boud, 1995). These items in addition to the provision of examples were also listed by these two instructors as methods they use to facilitate self-evaluation in their courses.

The predictor variable identified that was common to two other classes, Class B and Class D, was learner attributes. In contrast to the focus on "self" and "process" in Classes C and E, the instructors from Class B and Class D seemed to focus more on specific tasks related to course content. In describing how they facilitate self-evaluation in their courses, the instructor from Class B listed the use of checklists and the provision of "constructive feedback". The instructor from Class D reported the use of "self-analysis questionnaires such as locus of control" and assignments that focused on reflection of course content. With regards to skills they felt students needed in order to self-evaluate, the instructor from Class D listed items such as "maturity", "objectivity", and "motivation". The instructor from Class B listed items such as "awareness of course objectives" and the "ability to measure progress and assess behaviors and skills". One could argue that not all of the above-mentioned items are in fact skills, however, they have

been identified by these two instructors as being important items to assist students in self-evaluation processes.

Based on these differences identified, it seems possible that the variance of the predictor variable may be influenced by how instructors facilitate self-evaluation. For example, a strong focus on the process and involvement of the students versus a strong focus on an individual's performance regarding completion of a specific task. According to Boud (1995) in order to facilitate self-evaluation effectively, instructors must be clear about the purpose of their approach to self assessment: Is it primarily for the enhancement of learning or primarily for grading? Boud (1995) contends that when self assessment is used primarily for grading purposes and the focus is on summative tasks, the potential of self-assessment is easily reduced. It seems plausible that if the focus is placed on the enhancement of learning, then the process would take precedence over the individual assessment tasks, which in turn could influence students' perceived readiness for self-directed learning. One of the dimensions of Candy's (1991) conceptualization of self-directed learning includes self-direction as a process. Within that process, the importance of learner control is highlighted. It has been argued that the degree of learner control over the learning process provided to learners may impact their sense of autonomy thus enhancing one's competence in self-direction of their learning (Candy, 1991).

In reviewing the class by class scores on the Self-Directed Learning Readiness Scale (SDLRS) participants from Class C and Class E, where the focus of facilitation appeared to be on the process, had higher percentages of students who scored in the above average to high categories (34% in Class C and 40% in Class E). This is in contrast

to the scores in the above average to high categories from learners in Class B and Class D where the focus of facilitation appeared to be on individual assessment tasks (32% in Class B and 25% in Class D).

The qualitative findings further suggest that instructors may, to some degree, base their decision about how to facilitate self-evaluation on their view of skills students need to self-evaluate effectively. One of the questions on the Instructor Questionnaire asked instructors to identify skills they believe students need in order to effectively engage in a self-evaluation process. The instructor from Class C and from Class E both identified self-reflective skills as important and they seemed to actively facilitate the implementation of self-evaluation with this in mind. They described some of the tasks students are asked to complete such as setting goals related to the course content and reflecting on their learning and progress toward achieving the goals.

The response to the question about skills students need to self-evaluate from the Class B instructor and the Class D instructor was quite different. These two instructors identified items that would likely not be classified as skills. They seemed to focus on attributes of the learners such as motivation, maturity, and ability to understand content and criteria. It is possible that skills in self-evaluation were assumed by these instructors or that they felt learner attributes were more important than skills when it comes to self-evaluation. One could not form any conclusions without clarification from these two instructors regarding their responses. However, if the instructors felt they had little influence over the learner attributes identified, this may have influenced how they chose to implement self-evaluation in their courses.

To summarize, it seems plausible that the role of the instructor with regards to the facilitation of self-evaluation and their beliefs about the skills students need to effectively self-evaluate may influence, to some degree, students' perceptions about self-evaluation which in turn may influence their perceived readiness for self-directed learning. Within the qualitative data additional findings have provided some insight into variables that may influence, to some degree, effective implementation of self-evaluation processes. Those variables identified will be discussed next.

Variables Linked to Effective Implementation of Self-Evaluation

As indicated earlier, the class by class analyses of the qualitative data obtained from students' responses to the open-ended questions on the SEQ did not reveal any obvious differences between the classes that could be used to explain the differences in the predictor variables identified in each class. However, an analysis of the entire sample revealed some response patterns that provide insight into additional variables that may influence effective facilitation of self-evaluation processes. This is important because there is growing evidence to suggest that the way in which instructors implement or facilitate self-evaluation processes within a course influences students' perceptions of self-evaluation (Boud, 1995). Educators should not assume that learners have an innate desire to be self-directed and have the skills necessary for self-evaluation (Boud, 1995; Brookfield, 1986). The following three variables have emerged from the students' comments about their experiences with self-evaluation as being influential to their experience: Learner control, support, and self-reflection. As each variable is discussed,

the inclusion of students' comments give a voice and a feeling to their experience of engaging in self-evaluation processes, revealing a richer picture of their perceptions and attitudes about self-evaluation.

The first variable, learner control, reflects the learner's desire to be part of the learning process. It was also one of the factors identified in the principal components factor analysis conducted for the closed-ended questions on the SEQ. One could infer that because this variable was prevalent in both the open-ended questions and the closed-ended questions, that it was important to the participants. Learner control may be defined as the degree to which learners make decisions about the learning process and may be viewed as a continuum ranging from no control to full control (Cranton, 1996). There is a clear connection between learner control and self-evaluation in that self-evaluation provides learners an opportunity to have a high level of control within the learning and evaluation process. There was a total of 51 responses gleaned from the open-ended questions on the SEQ that are related to learner control. The responses could be plotted on a continuum showing a definite range, however, half of the responses reflected positive feelings about having some degree of control over the learning process. The following comments provide examples of the students' experiences that relate to learner control when they were asked to describe the most enjoyable aspects of self-evaluation.

- ⇒ "Feeling like I have some control of the course."
- ⇒ "Allows me to provide input into my final grade."
- ⇒ "Opportunity to mark my own work as if I was the instructor."
- ⇒ "Being a part of the process and having a say in it."

⇒ "Taking responsibility for my learning."

⇒ "Opportunity to set goals and achieve them."

⇒ "Being involved in establishing the criteria for self-evaluation."

26 of the 50 responses reflected a degree of negativity or unhappiness with the self-evaluation process some students experienced. Some of the responses clearly indicate that when it comes to aspects of evaluation, those learners prefer to have little if any control over the process, as reflected in the following examples.

⇒ "I feel it is the teacher's job to grade students."

⇒ "I prefer if others evaluate me."

⇒ "An instructor-developed assignment should be evaluated by the instructor."

⇒ "I want to know from someone else how I am doing. I want their feedback, not just another dialogue with myself about how I could have done better."

⇒ "My grade should be relative to work that other people submit and not my own potential."

The second variable that emerged from the students' responses on the open-ended questions was the importance of having support while engaging in a process of self-evaluation. Question 42 on the SEQ specifically asks participants to describe the types of support they received in courses which included a self-evaluation component. In addition to those responses, comments referring to support received were also gleaned from some of the other open-ended questions such as the most and least favorable aspects of self-

evaluation and why students would or would not choose self-evaluation if optional and why. There was a total of 57 responses that related to the variable, support. Two themes were identified within this variable: (1) feedback and (2) clarity of purpose, process, and criteria. In addition to the 57 responses related to support, there were 7 participants who indicated that they did not receive any support at all.

Within the first theme, feedback, the comments from students reflect a variety of sources of feedback as shown by the following examples.

- "Talking with family, friends, and classmates to discuss my behaviors and performance."
- "Instructor's input was helpful."
- "I liked having examples from peers on how to rate oneself."
- "I received encouragement and understanding from others."
- "Self-evaluation provides the opportunity for more discussion with the instructor regarding assignments."

Within the literature there is growing awareness that self assessment is not an isolated activity (Boud, 1995). Feedback plays a critical role in reflecting on one's progress. There is evidence reported by Smith and Hatton (cited in Boud, 1995) to support that ". . . students engage in a greater level and depth of reflection when they discuss their work with a peer as distinct from discussion with a specifically trained staff member" (p. 200). Boud (1995) contends that the provision of constructive feedback is "one of the most valuable contributions anyone can make to another person's learning"

(p. 200) whether as a student or as a teacher. According to this premise, the perspective of others is a critical component of self-evaluation processes.

The second theme, clarity of purpose, process, and criteria emerged from comments recorded for the questions asking participants about the supports they received, the most and the least enjoyable aspects of self-evaluation, as well as why they would or would not choose self-evaluation if it were optional and why. Fourteen respondents indicated that they found it helpful to have clear criteria and the process clearly outlined when completing self-evaluations as reflected in some of their comments below.

⇒ "Detailed checklists of specific behaviors and attitudes was helpful."

⇒ "I liked having a well-developed list of questions to ask myself."

⇒ "Having clear criteria on the self-evaluation form is important."

⇒ "Clear explanation re: purpose, process, pro's & con's was helpful."

Further support for clarity was also extracted from comments students provided when answering the question about their least favorable aspects of self-evaluation. A total of 9 participants indicated that a lack of clarity made the process less enjoyable as reflected in the following examples.

⇒ "Self-evaluations are vague and do not reflect well on behaviors expected of students."

⇒ "Not understanding the questions on the self-evaluations lead to frustration."

⇒ "I never felt the criteria was [sic] really clear."

These comments from the participants regarding the importance of clarity are consistent with the literature on self-evaluation. Boud (1995) alludes to the idea that many students may not readily accept self assessment because of the many years of experience with authority-dependent evaluation and that it is difficult to change their habits and attitudes about evaluation. He further asserts that in order for students to view self-assessment as a valid process, it is important for instructors to provide a clear rationale for the process, explicit procedures, and a safe environment in which students can be honest about their own performance (Boud, 1995).

The third variable identified as influential in the facilitation of self-evaluation was the role of self-reflection. This was identified in the student responses obtained from the open-ended questions on the SEQ. 53 out of the 60 responses related to this variable reflect positive feelings towards self-reflection. Examples of the students' responses are listed below.

- "Self-evaluation offers a chance to reflect on your own personal experiences and to come to an understanding of who you are."
- "One of the most important skills for self-evaluation is the ability to honestly reflect on my work/skills."
- "One of the most enjoyable aspects of self-evaluation is what I learn about myself."
- "Knowing my self-growth has made such a difference."
- "It was important to ask myself questions I may not have otherwise asked."
- "Completing a self-evaluation made me reflect on the amount of work I completed and the effort I put in."

Only 7 of the 60 responses recorded by the participants related to the role of self-reflection in the process of self-evaluation were considered as negative responses. Below are some examples of such responses.

⇒ "Not liking the answer upon reflection of my progress."

⇒ "One of the least enjoyable aspects of self-evaluation is self-exploration; finding things out about myself that I don't really like."

⇒ "Seeing what I do badly."

⇒ "I don't really enjoy taking a close look at myself and what I've completed."

The variable, self-reflection, was also identified as one of the factors in the principal component factor analysis conducted for the closed-ended questions on the SEQ. One could infer that because this variable was prevalent in both the open-ended questions and the closed-ended questions that it was important to the participants. There are numerous definitions of the concept of self-reflection, but most contain the central idea that it involves the analysis of one's own behaviors and beliefs within the context of the perspectives of others (Brookfield, 1986). Boud (1995) contends that there are close links between reflection and self-assessment: "Development of reflection skills is an important feature of thoughtful and meaningful self assessment" (p. 32). One of the ways for learners to enhance their learning is to reflect on the processes in which they are engaged. Boud (1995) argues that self-assessment should not be viewed as a distinct element of teaching and learning, but in relation to self and critical reflection.

Summary

Chapter 4 reported the results of both the quantitative and qualitative findings of this research study. Predictor variables for students' perceived readiness for self-directed learning were identified for the entire sample as well as for the five classes that comprised the sub-samples. For the entire sample, skills in reflective practice, students' level of experience in evaluating their participation in a course, and learner attributes were identified as moderate predictors of students' self-directed learning readiness, accounting for 43% of the total variance. In the sub-sample analyses no significant correlations were found between any of the predictor variables and the SDLRS score for Class A. For Class B, only one predictor variable was identified. Learner attributes accounted for 32% of the total variance. The analysis of the data from Class C revealed the following three predictor variables that together accounted for 94% of the total variance: Students' level of experience in self-evaluation of group projects, skills in reflective practice, and goals of the self-evaluation process. In Class D, independent learning dispositions and learner attributes were identified as moderate predictors of students' perceived readiness for self-directed learning, accounting for 65% of the total variance. For the last sub-sample, Class E, only one predictor was identified. Reflective practice appeared to be a moderate predictor, accounting for 42% of the total variance.

Within the sub-samples, a link was also identified between students' SDLRS scores and instructors' facilitation of self-evaluation processes in their courses. In two of the classes in which the instructors identified reflective practice as an important skill for students to have in order to effectively self-evaluate and described their focus on

facilitation as being process-oriented rather than product-oriented, there was a higher percentage of students whose SDLRS scores were in the above average to high category as compared to the scores from students in the other classes.

The analyses of the data have resulted in an emerging profile of college students' views about self-evaluation as well as the identification of variables that may be linked to effective facilitation of self-evaluation processes by instructors. The emerging picture reflects the importance of the following elements: Involving learners in the process; clear articulation of the purpose, process, and criteria for self-evaluation; attention to how the process is facilitated; and the critical role of feedback and self-reflection. Conclusions, recommendations, and implications for practice and further research are presented in the next and final chapter.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter presents a summary of the findings from this research study on college students' perceptions of the use of self-evaluation processes in credit courses. Prior to the discussion of the findings, an overview of the study is used to restate briefly the research problem and recall main features of the study's methodology. Results of the data analyses are then summarized and discussed using the questions which guided the research. Finally, implications of the findings and recommendations are specified for educational practice and future research.

Overview of the Study

As educators continue the search for strategies to assist learners in becoming responsible, lifelong learners, there appears to be renewed interest in the use of student self-evaluation as a method of assessment in post-secondary education settings. Further, it has been proposed by Boud (1995) that learning can be enhanced through the effective use of self-assessment processes. However, educators should not assume that all adult learners embrace the use of self-evaluation in credit courses. To better understand the nature of this relationship between self-evaluation and learning it seems important to consider how learners themselves perceive the use of self-evaluation.

This study was conducted to explore college students' perceptions of the use of self-evaluation processes in credit courses. A subsidiary intent was to explore possible

connections between self-evaluation and self-directed learning readiness because it has long been recognized that self-directed learning is embedded within the concept of lifelong learning which is one of the goals of higher education (Kreber, 1998). The research for this study employed a two phase mixed method design. As described in Chapter 3, the first phase involved the development of two questionnaires, the Self-Evaluation Questionnaire (SEQ) for students and the Instructor Questionnaire, through the use of a focus group interview, a pilot process, and a literature review. The second phase included the distribution and analyses of the questionnaires developed by the researcher in addition to the Self-Directed Learning Readiness Scale, a published instrument developed by Guglielmino in 1977 as part of her dissertation. The collection of both quantitative and qualitative data was built into the research design.

Data analysis techniques reflected the descriptive and exploratory nature of the study. Descriptive techniques such as frequencies and means were used in conjunction with exploratory techniques such as correlational analysis, factor analysis, and stepwise multiple regression to analyze the quantitative questionnaire data. The analyses were completed for the entire sample as well as for each of the five sub-samples. Open-ended responses on the questionnaires provided valuable additional information about college students' perceptions of the use of self-evaluation processes as well as the instructors' use of self-evaluation processes. A first level content analysis was conducted for the qualitative data obtained from both the students' and the instructors' responses to the open-ended questions. The responses were categorized according to the question topics. Each category was then reviewed and coded according to the patterns identified.

Summary and Conclusions

This study has led to the conclusion that there are identifiable factors that appear to have some degree of influence in college students' willingness to participate in self-evaluation processes and that some of these same factors account for some degree of variance in students' level of readiness for self-directed learning. These factors include: (a) methodology used by instructors to implement self-evaluation processes, (b) learner control, (c) learner attributes, and (d) skills in reflective practice. In this section, each research question and the corresponding findings will be summarized. Additional conclusions that have been drawn from the research are noted.

What factors influence students' willingness to engage in self-evaluation processes?

Just over half of the students in this study (59%) indicated that they would choose to participate in a self-evaluation process if it were an option in their courses. This low percentage might be cause for concern by educators interested in implementing self-evaluation processes in their courses. However, this finding is consistent with Boud's (1995) argument that resistance from students to new or innovative teaching and learning strategies is not uncommon. Although self-evaluation would not be considered as a new strategy, it could be considered as innovative to those who are not familiar with it.

Two factors have been identified through the analysis of the data that provide insight into what factors influence students' willingness to self-evaluate. One of the factors is the methodology instructors use to implement self-evaluation processes in their courses. This includes items such as how self-evaluation is introduced, whether the

purpose and process is clearly articulated, and how the criteria are established on which to base the self-evaluation. The second factor that appears to influence students' willingness to participate in self-evaluation processes is the degree of learner control experienced by students in their courses.

With regards to the first factor, methodology, four of the five instructors in the sample emphasized in their responses to the open-ended questions on the instructor questionnaire the importance of clearly articulating the purpose, process, and criteria for self-evaluation when implementing it in their courses. Interestingly, the student responses regarding their experience of the above items do not correspond highly to what the instructors reported as being important. Just over half of the students (57%) in the entire sample reported that the purpose for using self-evaluation processes in the courses was always or frequently made clear. The process of completing self-evaluations was reported as always or frequently made clear by a slightly higher percentage of students (66%). Similar results were tabulated for the item related to clear criteria on which to base a self-evaluation; 59% of the respondents reported that the criteria was always or frequently made clear. In addition to the above findings, 29 comments regarding methodology were identified in the responses to the open-ended questions included in the last section of the SEQ. These comments indicate that students found it helpful to have clear criteria and the process clearly outlined when engaging in self-evaluation processes. Included in those 29 responses were also some references to feelings of frustration when students did not feel the process and criteria were clear. From these data, it appears that only a low majority of students experienced a self-evaluation process that included clear articulation of the

purpose, process, and criteria for self-evaluation.

There are at least two possible explanations for these differences between the student responses and the instructor responses within the entire sample. One possibility is that although all five instructors commented on the importance of clearly articulating the purpose, process, and criteria for self-evaluation not all of them actually provided this when implementing self-evaluation processes in their courses. The second possibility is that while a clear articulation of purpose, process, and criteria may have been provided, students and instructors have different perceptions about these aspects. As a result, the purpose, process, and criteria may have been clear to the instructors but not clear to the students. Some students may experience anxiety related to uncertainty about expectations, thus increasing the risk of resistance to self-evaluation processes (Boud, 1995). The findings from this study suggest that clear articulation of purpose, process and criteria is important in the implementation of self-evaluation processes in order to reduce resistance.

The second key factor that emerged from the data as having an impact on students' willingness to participate in self-evaluation processes is the degree of learner control experienced by students in their courses. There is some evidence from the results of this study to suggest that a discrepancy existed between what students believed was important and what they actually experienced in their courses. 70% of the students agreed that they should be involved in the process of establishing the criteria to be used for self-evaluation, yet only 18% indicated that they were always or frequently involved in the process.

Students also expressed concern about the degree to which their self-evaluation was actually taken into consideration when grades were assigned. 23 comments about grading were identified in the responses to the open-ended questions on the SEQ. Many of the comments reflected the feeling from students that their input (through self-evaluation) did not make much difference when it came to grading and therefore, in their opinion, the value of self-evaluation was diminished. Based on these findings, it seems then that learners want to feel that they have some degree of control over the process and need to know that their input is valued.

What skills, learner attributes, or supports do students believe are needed to effectively engage in self-evaluation processes as compared to what instructors believe?

A wide range of responses were received from the instructors and the students in response to the open-ended questions on the questionnaires. Two themes emerged from the data related to the aspect of skills that were common to both the instructor and the student responses. The two themes were: (1) learning and study skills and (2) self-reflection skills. Within the theme of learning and study skills, students and instructors reported items such as the ability to set goals, critical thinking, ability to be objective, analytical skills, and ability to clearly articulate what one knows and understands about the content and oneself. The second theme, skills in reflective practice, included responses from students and instructors such as being open to feedback, thinking about self critically, self-awareness, as well as being objective, realistic, and honest about one's performance

and abilities. The importance of having skills in self-reflection to effectively self-evaluate was agreed upon by the vast majority of the students in the sample (92%). These findings are consistent with those reported by Randall (1999) who surveyed a group of adult learners on what they thought learners needed to effectively self-evaluate.

With regards to learner attributes there was a high level of agreement amongst the students as to which attributes were important to effectively engage in self-evaluation processes. Almost all of the students in this study (97%) agreed that motivation was an important attribute. A vast majority of students also agreed that self-confidence and being a self-directed learner were important attributes. Only two of the five instructors cited motivation and being a self-directed learner as important. None of the instructors cited self-confidence as being important. The only conclusion that can be drawn from these findings is that overall, the students and instructors in this study did not appear to share the same views as to which specific learner attributes lead to effective engagement in self-evaluation processes.

With regards to supports that students received and instructors provided, the importance of feedback and a supportive learning environment were two themes that emerged from the data analysis. The vast majority of students agreed that being open to feedback from others was important to the process of completing a self-evaluation (92%). When asked how instructors facilitate self-evaluation with students, three of the five instructors reported the importance of incorporating feedback processes in their courses. Responses to the open-ended questions on the SEQ reflected that students received feedback from a variety of sources when participating in self-evaluation processes while

completing courses at the College. The sources reported by the students included instructors, peers, family, co-workers, and practicum supervisors. Boud (1995) argues that self-assessment should not be viewed as a solitary process and that feedback from others is an essential element in developing skills in self-assessment. Evidence from this study supports that argument.

The second theme that emerged from the data is the importance of a supportive learning environment. This theme was also common to both the student data and the instructor data. The majority of responses from students indicated that they found it very helpful when instructors spent time introducing self-evaluation and clearly articulated the purpose, process, and criteria. A few students also reported the importance of trust in relation to having an open dialogue with instructors regarding their abilities and performance in class. All five instructors also reported items related to this theme of a supportive learning environment when asked how they facilitate self-evaluation processes. Some methods reported include: "create an environment that supports reflection and goal-setting", "include opportunities to practice self-evaluation and self-reflection skills", "provide examples and model expectations", "make the process and criteria clear", and "help students feel safe to take learning risks by building trust within the class".

The findings from this study suggest that when it comes to supporting students in self-evaluation processes, it appears that both the students and the instructors in the sample generally agree on what is helpful to students. What we don't know is how much emphasis is placed on the various aspects described by individual instructors in different classes.

What factors influence students' readiness for self-directed learning?

One of the goals of this research study was to explore links between self-evaluation and perceived readiness for self-directed learning. Of specific interest was to determine if any factors related to self-evaluation could be used to predict self-directed learning readiness scores as measured by the Self-Directed Learning Readiness Scale (SDLRS). The data analysis for the entire sample resulted in the identification of the following three predictor variables: (1) skills in reflective practice, (2) students' level of experience in evaluating their participation in a course, and (3) learner attributes. All three variables correlated positively to SDLRS scores and together they accounted for 43% of the total variance. Two of these variables, skills in reflective practice and learner attributes, were also identified as factors that appear to influence students' willingness to participate and effectively engage in self-evaluation processes which suggests a possible relationship.

When the class by class analyses were conducted, two of the three predictor variables identified in the entire sample data, reflective practice and learner attributes, were also identified in four of the five classes. Reflective practice was identified in Class C and Class E and learner attributes was identified in Class B and Class D. However, within each class, a different set of variables accounted for different degrees of variance in SDLRS scores. It is clear that the predictor variables varied with the context. These findings suggest that some links exist between student perceptions of self-evaluation and perceived readiness for self-directed learning, namely skills in reflective practice and learner attributes. Evidence within the literature suggests that skills in reflective practice

are an essential element in both self-evaluation processes and self-direction in learning (Boud, 1995; Brookfield, 1986; Brown & Knight, 1994, Candy, 1991; MacGregor, 1993; Randall, 1999). Candy (1991) categorized over 100 competencies linked with successful self-directed learning. Self-awareness and reflective ability was one of 13 categories Candy identified. Some of the other categories relate to learner attributes such as, being methodical, analytical, responsible, independent, and motivated as well as having a positive self-concept. The findings from this study highlight the interrelationship between self-evaluation and perceived readiness for self-directed learning and are consistent with the literature. It has been argued that self-evaluation is a necessary component in higher education settings where developing knowledgeable, self-directing, reflective people is valued (Brown & Knight, 1994).

Although it is clear from the findings of this study that the predictor variables for self-directed learning readiness varied with the context, what remains unclear is what accounts for the differences between the five classes in the sample. Analyses of the demographic information on the student participants did not yield findings to provide an explanation for the variance. What has emerged as a possible explanation for the differences between classes is how the instructors facilitated the self-evaluation process.

In the two classes where skills in reflective practice emerged as one of the predictor variables, the instructors seemed to focus more on the process. Students were encouraged throughout the course to not only reflect on the content and their performance on tasks, but also to reflect on their learning processes. In the two classes where learner attributes emerged as one of the predictor variables, the instructors seemed to focus more

on the learning tasks themselves. The outcome or final product seemed to have taken precedence over the process in which students were engaged in, therefore appearing to reduce the amount of facilitation required by the instructor or change the type of instructor facilitation.

Implications and Recommendations

As discussed, the findings of this study suggest that there are elements common to both self-evaluation and self-directed learning that seem to have some degree of influence in the ability of students to effectively engage in self-evaluation processes and on their perceived readiness for self-directed learning. The findings have also provided insight into why differences in these elements exist in the sub-samples of this study. The following section will address implications and recommendations arising from the findings of this study with regards to educational practice and further research.

Implications and Recommendations for Educational Practice

Results from this study suggest that students need to feel supported in the process of completing self-evaluations. Although some insights have been gained, it remains unclear as to what the most effective strategies are to meet this need. Some aspects instructors should consider when implementing a self-evaluation process is to clearly articulate to students the purpose for using self-evaluation and what the process will be like. Instructors should also consider how to involve students in establishing the criteria on which to base the self-evaluation. Students have expressed that they are more willing

to participate in a self-evaluation process when they can see the value in it, they have some level of involvement in it, the connection to the course is clear, and they feel their voice matters. Boud (1995) has strongly asserted that "the trap which we need to avoid is self-assessment becoming a set of techniques or common activities which are established without critical questioning" (p. 214). Self-evaluation processes need to become an integral part of courses and involve the students rather than be used as add-on tasks at the end of a course.

Evidence from this study also suggests that there are skills associated with the ability to effectively engage in a self-evaluation process. Skills in reflective practice was one of the dominant skill areas identified in the data. The implication for educators is that it cannot be assumed that all adult learners have skills in self-evaluation. Instructors need to take the time to determine students' level of skills, then incorporate into the curriculum opportunities for students to learn and practice the necessary skills to complete the particular self-evaluation process. There is some debate in the literature as to whether or not skills in self-evaluation are transferable from one context to another. Boud (1995) argues that skills in self-evaluation are context-specific. However, evidence from this study indicates that there may be some skills related to self-evaluation that are perhaps transferable to different learning contexts involving self-evaluation. Within the data collected from the instructors and the students in five different classes, skills in reflective practice emerged as a dominant skill area important for effective self-evaluation.

Implications and Recommendations for Further Research

This research was exploratory in nature and used a mixed method approach. The initial focus group interview provided a glimpse into college students' perceptions of the use of self-evaluation processes in academic courses. The use of the Self-Evaluation Questionnaire helped provide a broader view of student perceptions and served as a good starting point to examine those perceptions in more detail. At this point, a further indepth study of this population using interviews and other qualitative tools is needed to provide a more extensive picture of students' experiences with self-evaluation in a college setting. Follow-up interviews with the instructors would also be of value because it would provide the researcher an opportunity to clarify comments recorded on the Instructor Questionnaire, thus reducing subjectivity in interpretation.

One of the primary implications arising from this research is the use of the researcher developed instrument, the Self-Evaluation Questionnaire, which was administered to the student participants in this study. Even though a pilot study was completed, the sample size was small and it became evident when working with a much larger sample that the questionnaire contained too many questions and there was considerable overlap in some areas. Therefore, a revision of the Self-Evaluation Questionnaire is recommended if a replication of this study were to take place.

A second implication is that the sample used in this study was both a convenient and a purposeful one. This is an implication because the findings cannot be generalized to a larger population. If generalization of the findings were the primary goal, then a random sample would be essential. However, based on the sampling techniques used in this study,

transferability of some of the findings within the same setting and to a similar context is a possibility. The primary use for the findings from this study was to gain insights into students' perceptions about the use of self-evaluation in college courses to further inform teaching and learning practice.

As a result of this exploratory study, some interesting insights have been gained from the student participants about what they feel is important to completing self-evaluation processes. Learner attributes was one of the variables identified. A vast majority of the students agreed that motivation and self-confidence played an important role in completing self-evaluations. This is an area that needs further exploration. What type and degree of motivation is needed to have an impact? Just how confident do students need to feel about themselves and their performance to effectively engage in self-evaluation processes? Can these attributes be measured in conjunction with self-evaluation? We cannot ignore the connections between how students view themselves as learners and the assessment they make about particular learning tasks they complete (Boud, 1995; Zimmerman, 1998). Such research could inform teaching and learning practice by increasing our understanding of this relationship.

Summary

The impact of the total learning environment on students is increasingly being recognized and this includes the need to look at the profile of assessment as students view it (Brew, 1999). Self-evaluation is becoming more prevalent in post-secondary education settings. This research study on students' perceptions of the use of self-evaluation makes

a contribution to the growing body of literature on assessment practices.

The results of this study highlight the educational implications of employing self-evaluation processes in credit courses within a college setting. The present findings suggest that educators should take into consideration the following observations as they plan and implement self-evaluation processes: (a) clear articulation of the purpose and the process appears to be essential, (b) students should be involved in the development of the criteria for self-evaluation, (c) skills in self-evaluation should not be assumed, and (d) the ability of students to effectively self-evaluate appears to be influenced by variables such as skills in reflective practice, learner attributes, the inclusion of a feedback process, and a supportive learning environment.

The findings from this study further inform our understanding of the relationship between self-evaluation and perceived readiness for self-directed learning. The findings suggest that perceived readiness to engage in self-directed learning is influenced by the following three variables that have been linked to self-evaluation: (1) skills in reflective practice, (2) students' level of experience in evaluating their own participation in courses, and (3) learner attributes. With the present sample, together these three variables accounted for 43% of the total variance in the Self-Directed Learning Readiness Scale scores. While it remains unclear what accounts for the remaining variance, future research may explore in particular the role of instructors in the facilitation of self-direction in learning and the development of self-evaluation skills. Future research in this area is important because both self-directed learning and self-evaluation are essential elements of lifelong learning and professional practice (Boud, 1995; Brew, 1999).

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APPENDIX A

Information Letter
Prospective Student Participants
(Pilot Study)

APPENDIX A

Information Letter
Prospective Student Participants
(Pilot Study)

Dear College Student:

> What have your experiences been with the process of self-evaluation in college courses? Do you think self-evaluation should be used as a method of assessing your learning or participation in classes? Why or why not?
>
> If the above questions interest you, would you consider participating in a research study that will focus on the topic of self-evaluation?

I am an instructor at Grant MacEwan College and am currently completing my graduate studies at the University of Alberta. As part of the requirements for a Master's Degree in Adult and Higher Education I am completing a study on student self-evaluation with a focus on college students' perceptions of the use of self-evaluations in credit courses. Some of the questions I am exploring include: (a) What factors contribute to students' willingness to participate in self-evaluation processes? (b) What factors contribute to students' resistance to self-evaluation methods? (c) What self-evaluation methods are more favorable to students than others? (d) What specific skills are needed of students in order to feel competent in completing a self-evaluation?

For this study I am seeking volunteer students eighteen years of age or older who are registered in a credit course and have completed a self-evaluation. The research will take place in three phases: (1) Focus group interview for questionnaire development, (2) Pilot study, and (3) Main study. I am currently seeking participants for the first two phases.

For the first phase, a focus group session will be used to further inform my understanding of college students' perceptions of the use of self-evaluation methods. General ideas about self-evaluation and experiences students have had in completing them will be discussed. Data collected will be used to develop a questionnaire on self-evaluation that will be used to survey other college students. The focus group session will be conducted outside of class time and will take no longer than 60 minutes. The session will be audio-taped. I am seeking eight students to participate.

> The focus group session will be held on: Monday, March 6, 2000
> Time: 2:30 to 3:30 p.m.
> Where: City Centre Campus, Room TBA
> Refreshments will be provided and set up by 2:15

For the second phase, the questionnaire and the Self-Directed Learning Readiness Scale will be piloted with eight students. Participants will also be asked to provide feedback on the questionnaire itself. The pilot study will take place outside of class time during the last two weeks of March. It is anticipated that completion of the two questionnaires will take no longer than a total of 30 minutes. The questionnaires may be taken home to complete and returned in the envelope provided.

The names of all participants in the study and all the information provided will be kept confidential. Verbal comments from the focus group session and written comments from the questionnaires may be included in the final written research report and any subsequent presentations or articles, but will not be identified as originating from a specific person. All data collected will be destroyed upon completion of the thesis.

Your participation in the research is voluntary. If you decide to participate you will be required to sign a consent form. If you decide at any point that you no longer wish to participate, you may withdraw from the study without having to provide a reason.

If you are interested in participating in this study, please complete the section below, detach and return it to me by 4:00 p.m. Friday, March 3, 2000 in the Early Childhood Development Office, 7-154 or you can call me at [number inserted] or contact me through e-mail at: [address inserted].

Thank you for your time and consideration of this request. Your participation will be greatly appreciated and will contribute to our further understanding of the use of self-evaluation methods in credit courses. If you have questions about this study now or later, please feel free to contact me at [number inserted] or my research supervisor, Dr. Carolin Kreber at [number inserted].

Sincerely,

Bev Lafortune
Instructor
Early Childhood Development Program

***Please circle your choice of participation below. Include your name and telephone number.**

*Please note that those interested in participating in the focus group session will be contacted during the weekend (March 4 or 5) to confirm participation. Those interested in the pilot study of the questionnaires will be contacted during the last two weeks of March.

1. I am interested in participating in the focus group session on Mon. March 6.

2. I am interested in participating in the pilot study of the questionnaires during the last two weeks of March.

3. I am interested in participating in both the focus group and the pilot study.

Name: _____ Phone Number: _____ Date: _____

APPENDIX B

Focus Group Interview
Statement of Informed Consent

APPENDIX B

Focus Group Interview
Statement of Informed Consent

I, _____, agree to participate in the research project "Student Self-Evaluation: College Students' Perceptions" being conducted by Beverly Lafortune from the University of Alberta.

I understand the purpose of the focus group interview is to find out about college students' perceptions of the use of self-evaluation as an assessment method in a credit course. We will discuss our general ideas about self-evaluation and experiences we have had in completing them. The information discussed here will be used to help generate a questionnaire that will be used to survey other college students.

I understand that my participation in the research project is voluntary and if I wish to withdraw from the study or to leave the focus group I may do so at any time, without giving a reason or explanation. Withdrawing from the study will have no impact on my relationship with the researcher, college instructors, or the college.

I understand that the information discussed in the group will be audio-taped. During the focus group interview I will not be asked to identify myself by name.

The researcher will make every attempt to guarantee the privacy of the participants.
To assist in this matter, I agree not to disclose any information discussed by myself or other participants in the focus group.

I understand that all information that I give will be kept confidential. Data collected will be stored in a locked office and will only be accessed by the researcher. The names of all the participants in the study will be kept confidential. Comments made in the focus group may be included in the written research report but will not be identified as originating from a specific person.

The audio tape and any written notes connected to the focus group interview will be destroyed upon completion of the project.

All aspects of this study related to purpose and methodology have been disclosed
and I have had the opportunity to ask questions of the researcher regarding this study.

I have read and understand this information and I agree to take part in the study.

Signature of Participant: _____ Date:_____

APPENDIX C

Focus Group Interview Guide

APPENDIX C

Focus Group Interview Guide

1. Describe the type(s) of self-evaluation you have been required to complete as part of a credit course.

2. How did you feel about completing the self-evaluation(s)?

3. In what ways were you prepared for completing self-evaluations?

4. What role or responsibility do students have in the process of evaluating their learning? Why?

5. What role or responsibility do instructors have in the process of evaluating student learning? Why?

6. Who should set the criteria for a self-evaluation? Why?

7. What purpose does a self-evaluation serve?

8. Based on your experience, do you think self-evaluation methods should be used in credit college courses? Why or why not?

APPENDIX D

Information Letter to Program Chairs and Instructors

APPENDIX D
Information Letter to Program Chairs and Instructors

[Date]
[Name]
[Program]

Dear [Name]

I am an instructor at Grant MacEwan College in the Early Childhood Development Program and am currently completing my graduate studies at the University of Alberta. As part of the requirements for a Master's Degree in Adult and Higher Education I am completing a study on student self-evaluation. The study will focus on college students' perceptions of the use of self-evaluation methods in credit courses. This study will also explore whether there is a link between students' perceptions of self-evaluation and readiness for self-directed learning.

Approval to conduct this study has been received from the Ethics Review Committee at Grant MacEwan College as well as from the University of Alberta.

For this study, I am seeking a sample of 100 college students who are enrolled in programs, courses, or practicums that include some type of self-evaluation component. A cluster sampling technique will be used to identify participants. I am searching for instructors who are interested and willing to participate in the study along with one of their classes of students. The class could be a first or second year course held during the day or evening. The cluster could also be students completing a practicum. The only criteria is that the students have had at least one opportunity to evaluate their own progress or learning while attending the program or course.

The instructors' involvement would include completing a short questionnaire to obtain demographic and background information regarding the learning context. Students' involvement would consist of completing two questionnaires, which will take a total of approximately 30 minutes to complete. I would like the opportunity to administer the questionnaires during class time if possible, however, I am prepared to request that students complete them outside of class time and arrange to pick the completed questionnaires up from instructors. I would like to begin data collection as soon as possible. I will be available to attend your class to explain the study to students and request volunteers.

Findings of this study will offer educators insight into how students respond to self-evaluation methods and may lead to the identification of conditions or factors that enhance the use of self-evaluation. These insights may further assist educators in making decisions about how student self-evaluations are to be designed and implemented.

Thank you for your time and consideration of this request. Your involvement in this study will be most valuable and greatly appreciated. If you or anyone in your department is interested in participating in this study or if you have any questions about it, please call me at [number inserted]. I can also be reached by e-mail at: [address inserted]. I look forward to hearing from you.

Sincerely,

Bev Lafortune
Instructor, Early Childhood Development Program
Grant MacEwan College

APPENDIX E

Information Letter for Prospective Student Participants

APPENDIX E

Information Letter for Prospective Student Participants

Dear Grant MacEwan College Student:

> **What have your experiences been with the process of self-evaluation in college courses? Do you think self-evaluation should be used as a method of assessing your learning or participation in classes? Why or why not?**

I am an instructor at Grant MacEwan College and am currently completing my graduate studies at the University of Alberta. As part of the requirements for a Master's Degree in Adult and Higher Education I am completing a study on student self-evaluation with a focus on college students' perceptions of the use of self-evaluation methods in credit courses. I am also exploring links between learning preferences and preferences for the use of self-evaluation methods.

Approval to conduct this study has been received from the Ethics Review Committee at Grant MacEwan College as well as from the University of Alberta.

I am currently seeking participants for this study. Your participation would include completing two questionnaires. One of the questionnaires focuses on self-evaluation and the other one focuses on learning preferences. The total time estimated for the completion of both questionnaires is 30 minutes.

The names of all participants in the study and all the information provided will be kept confidential. You will not be required to identify yourself by name on the questionnaires. The questionnaires will be numbered. Written comments from the questionnaires may be included in the final written research report and any subsequent presentations or articles but will not be identified as originating from a specific person. All data collected will be destroyed upon completion of the thesis.

Your participation in the research is voluntary. Participants will be required to sign a consent form. If you decide at any point that you no longer wish to participate, you may withdraw from the study without having to provide a reason.

Thank you for your time and consideration of this request. Your participation in this study will be greatly appreciated and will contribute to furthering our understanding of college students' perceptions of the use of self-evaluation methods in credit courses. Insights gained from this study will assist educators in making decisions about how student self-evaluations are to be designed and implemented.

If you have questions about this study now or later, please feel free to contact me at 497-5191 or my research supervisor, Dr. Carolin Kreber, at 492-7623.

Sincerely,

Bev Lafortune
Instructor, Early Childhood Development Program
Grant MacEwan College

APPENDIX F

Statement of Informed Consent (Instructors)

APPENDIX F

Statement of Informed Consent (Instructors)

I, _____, agree to participate in the research project "Student Self-Evaluation: College Students' Perceptions" being conducted by Beverly Lafortune from the University of Alberta.

I understand the purpose of the study is to explore college students' perceptions of the use of self-evaluation as an assessment method in a credit course and to explore factors that may influence students' acceptance toward the use of self-evaluation.

As part of this study, instructor participants will be asked to complete a questionnaire to provide demographic information as well as information pertaining to the learning context in which students are completing self-evaluations. The estimated time commitment for completing the questionnaire will be a total of 15 to 20 minutes.

I understand that my participation in the research project is voluntary and if I wish to withdraw from the study I may do so at any time, without giving a reason or explanation. Withdrawing from the study will have no impact on my relationship with the researcher the College, or the University of Alberta.

I understand that I will not be asked to identify myself by name on the questionnaire. The questionnaire used will be numbered. The consent forms will be kept separate from the completed questionnaire.

I understand that the data will be kept confidential. Data collected will be stored in a locked office and will only be accessed by the researcher. The names of all the participants in the study will be kept confidential. Throughout the study and in the publication of the results names of participants, instructors, courses, and programs will not be identified. Both grouped data and individual data may be included in the written research report but will not be identified as originating from a specific person.

The completed questionnaires will be destroyed upon completion of the project.

All aspects of this study related to purpose and methodology have been disclosed and I have had the opportunity to ask questions of the researcher regarding this study.

I have read and understand this information and I agree to take part in the study.

Signature of Participant _____ Date_____

APPENDIX G

Statement of Informed Consent (Students)

APPENDIX G

Statement of Informed Consent
(Students)

I, _____, agree to participate in the research project "Student Self-Evaluation: College Students' Perceptions" being conducted by Beverly Lafortune from the University of Alberta.

I understand the purpose of the study is to explore college students' perceptions of the use of self-evaluation as an assessment method in a credit course and to explore factors that may influence students' acceptance toward the use of self-evaluation. As part of this study, participants will be asked to complete two questionnaires. The estimated time commitment for completing the questionnaires will be a total of 30 minutes.

I understand that my participation in the research project is voluntary and if I wish to withdraw from the study I may do so at any time, without giving a reason or explanation. Withdrawing from the study will have no impact on my relationship with the researcher, college instructors, or the college.

I understand that I will not be asked to identify myself by name on the questionnaires. The questionnaires used will be numbered. The consent forms will be kept separate from the completed questionnaires.

I understand that the data will be kept confidential. Data collected will be stored in a locked office and will only be accessed by the researcher. The names of all the participants in the study will be kept confidential. Throughout the study and in the publication of the results names of participants, instructors, courses, and programs will not be identified. Both grouped data and individual data may be included in the written research report but will not be identified as originating from a specific person.

The completed questionnaires will be destroyed upon completion of the project.

All aspects of this study related to purpose and methodology have been disclosed and I have had the opportunity to ask questions of the researcher regarding this study.

I have read and understand this information and I agree to take part in the study.

Signature of Participant _____ Date_____

APPENDIX H

Questionnaire on College Students' Perceptions of Self-Evaluation

APPENDIX H

Questionnaire on College Students' Perceptions of Self-Evaluation

Increasingly students are being asked to complete self-evaluations in college courses. This questionnaire is designed to elicit information from college students to build a profile of students' perceptions of self-evaluation. The results will be used to assist educators in the development of effective self-evaluation processes as well as to inform the researcher's Master's Thesis.

The questionnaire will take approximately 20 minutes to complete. Your responses are valuable and your time is greatly appreciated. Your responses are confidential and there is no need to record your name.

Section A

1. Please circle the College division that your studies primarily fall within:

1. Arts	5. Community Studies
2. Science	6. Community Education
3. Business	7. Performing, Visual Communication Arts
4. Health	8. Other (please specify) _____

2. Please circle your current registration status:

1. Full time, 1st year
2. Full time, 2nd year
3. Part-time, 1st year
4. Part-time, 2nd year

3. Please circle your age category:

1. Under 20
2. 20's
3. 30's
4. 40's
5. 50's
6. 60's or older

4. Please circle your gender category:

1. Female
2. Male

5. **Please describe the type of self-evaluation(s) you have completed in the particular course or program you are currently registered in.**

6. Have you completed any other types of self-evaluations in other courses or programs while attending college? Please circle all that apply and indicate with a check mark the number category of self-evaluations completed:

   1. Self-evaluation of participation in a course

      ___ Completed less than 5 ___ Completed 5 to 10 ___ Completed more than 10

   2. Self-evaluation of individual assignments

      ___ Completed less than 5 ___ Completed 5 to 10 ___ Completed more than 10

   3. Self-evaluation of group projects or assignments

      ___ Completed less than 5 ___ Completed 5 to 10 ___ Completed more than 10

   4. Self-evaluation of your progress in field placement (practicum)

      ___ Completed less than 5 ___ Completed 5 to 10 ___ Completed more than 10

Section B

Please indicate your level of agreement to the importance of the following items for completing a self-evaluation:

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
7. a. Being able to reflect on my learning process is important b. Please explain your response	5	4	3	2	1
8. a. Being open to feedback from others is important b. Please explain your response	5	4	3	2	1

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
9. a. Being self-motivated is important b. Please explain your response	5	4	3	2	1
10. a. Being self-confident is important b. Please explain your response	5	4	3	2	1
11. a. Being a self-directed learner is important b. Please explain your response	5	4	3	2	1
12. a. Having an informed understanding of the criteria for the evaluation is important b. Please explain your response	5	4	3	2	1
13. a. Having a love for learning is important b. Please explain your response	5	4	3	2	1
14. a. Being committed to personal achievement is important b. Please explain your response	5	4	3	2	1

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
15. a. Being committed to honesty is important b. Please explain your response	5	4	3	2	1
16. a. Having the capacity to think for oneself is important b. Please explain your response	5	4	3	2	1
17. a. Having a sense of responsibility for one's own learning is important b. Please explain your response	5	4	3	2	1
18. a. Being able to think holistically (to see the whole as well as the parts) is important b. Please explain your response	5	4	3	2	1

Section C

Please respond to the following statements indicating your level of agreement by circling the number that best reflects your response.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
19. Self-evaluation offers students an opportunity to view and examine their learning processes	5	4	3	2	1
20. I would enjoy a course in which self-evaluation is required	5	4	3	2	1
21. Students' opinions about their participation in a course should be sought	5	4	3	2	1
22. Students' opinions about the assignment of the final grade in a course should be sought	5	4	3	2	1
23. Students acquire valuable skills when provided the opportunity to assess their own learning in a course	5	4	3	2	1
24. It is the instructor's responsibility to assess student learning and determine the final grade	5	4	3	2	1
25. Self-evaluation should be a required component in a credit course	5	4	3	2	1
26. When I have the opportunity to n evaluate myself in a course I put more effort into the course	5	4	3	2	1
27. I have developed more confidence in myself through completing self-evaluations	5	4	3	2	1
28. Self-evaluation makes me feel more responsible for my own learning	5	4	3	2	1
29. Students should be involved in establishing the criteria for self-evaluation in a course	5	4	3	2	1

Section D

Based on your experiences with self-evaluation in college courses please rate the following items in terms of their frequency:

	Always	Frequently	Sometimes	Never
30. The purpose of using self-evaluation was clear	4	3	2	1
31. The process of how to complete the self-evaluation was made clear	4	3	2	1
32. The criteria on which to base the self-evaluation were clear	4	3	2	1
33. Students were involved in establishing the criteria for the self-evaluation	4	3	2	1
34. Students' understanding of self-evaluation was considered prior to the process being implemented	4	3	2	1
35. Self-evaluation was imposed on students	4	3	2	1
36. Students were informed at the beginning of courses that self-evaluation was an option	4	3	2	1
37. Peer feedback was encouraged in the process of self-evaluation	4	3	2	1
38. Self-evaluation reinforced and enhanced my learning of the specific content or skills being assessed	4	3	2	1

Section E

39. What have been the most enjoyable aspects of engaging in a process of self-evaluation in college courses you have taken?

40. What have been the least enjoyable aspects of engaging in a process of self-evaluation in college courses you have taken?

41. Please describe the skills that have helped you complete self-evaluations in college courses you have taken.

42. Please describe the supports you have received that have assisted you in completing self-evaluations in college courses you have taken.

43. If a self-evaluation process was optional in your college courses, would you choose to participate in it?
Yes _____ No _____

Please provide reasons for your response.

Thank you for your time and commitment to completing the questionnaire. Your responses are valuable and will be used to further educators' understandings of college students' perceptions of the use of self-evaluation in credit courses. If you have any questions about the research please contact:
Beverly Lafortune at 497-5191.

If you are interested in participating in a follow-up interview to clarify or add to your responses from this questionnaire, please indicate your name and telephone number below. Please be assured that the only purpose this information serves is making it possible for the researcher to contact you. Your responses to this questionnaire will not be shared with your instructors and will be treated completely confidentially.

If you are not interested in participating in a follow-up interview, leave the section below blank.

Yes, I am interested in participating in a follow-up interview.

My name is: _____

The researcher can contact me at (phone or e-mail): _____

APPENDIX I

Instructor Questionnaire

APPENDIX I

Instructor Questionnaire
The Use of Student Self-Evaluation Methods in Credit Courses

As part of my study on college students' perceptions of self-evaluation, this questionnaire is designed to elicit information from instructors who agreed to participate in the study with their class of students to help the researcher understand the context in which student self-evaluation methods are being used. The results of the study will be used to assist educators in the development of effective self-evaluation processes as well as to inform the researcher's Master's Thesis.

The questionnaire will take approximately 15 minutes to complete. Your responses are valuable and your time is greatly appreciated.

1. Please indicate the number of years of teaching experience you have by circling one of the responses below:

   a. Less than 5 years
   b. 5 to 10 years
   c. 10 to 15 years
   d. More than 15 years

2. As an educator, how many years have you been experimenting with student self-evaluation in credit courses? Please circle your response.

   a. Less than 5 years
   b. 5 to 10 years
   c. 10 to 15 years
   d. More than 15 years

3. How did you learn about self-evaluation methods? Please circle all that apply.

   a. Topic in an undergraduate course
   b. Topic in a graduate course
   c. Personal experience as a student in an undergraduate course
   d. Personal experience as a student in a graduate course
   e. Personal experience as a college instructor
   f. Professional development courses or workshops
   g. Other (please specify):

4. Please describe the skills you think students need to effectively engage in a self-evaluation process:

5. Please specify the number of courses you currently teach that include student self-evaluation component(s):

6. Please describe the types of student self-evaluation methods you use in the course(s) you teach:

7. Please describe how you introduce student self-evaluation in your course(s).

8. Do you do anything to facilitate the process of self-evaluation with students?
Please circle one response: Yes No

If you answered yes, please describe how you facilitate the process.

9. Please describe why you have chosen to use student self-evaluation methods in the course(s) you teach:

Thank you for your time and commitment to completing the questionnaire. Your responses will be treated completely confidentially. If you have any questions about the research please contact the researcher: Beverly Lafortune at 497-5191.

Should the researcher require any clarification of your responses, would you be open to a follow-up telephone call?

Yes No

APPENDIX J

Self-Evaluation Questionnaire Results (Section B, C, and D)

Appendix J

Self-Evaluation Questionnare Results

SECTION B
Please indicate your level of agreement to the importance of the following items for completing a self evaluation:

	Stongly agree 5		Agree 4		Uncertain 3		Disagree 2		Strongly disagree 1		Mean	SD
	f	%	f	%	f	%	f	%	f	%		
7. Being able to reflect on my learning process is important	39	41.5	47	50.0	5	5.3	2	2.1	1	1.1	4.29	0.76
8. Being open to feedback from others is important	39	41.5	47	50.0	8	8.5					4.33	0.63
9. Being self-motivated is important	56	59.6	35	37.2	1	1.1			1	1.1	4.56	0.63
10. Being self-confident is important	50	53.2	35	37.2	8	8.5					4.45	0.65
11. Being a self-directed learner is important	24	25.5	48	51.1	20	21.3					4.04	0.69
12. Having an informed understanding o the criteria for the evaluation is important	45	47.9	41	43.6	6	6.4	1	1.1			4.4	0.66
13. Having a love for learning is important	42	44.7	34	36.2	12	12.8	3	3.2			4.26	0.81
14. Being committed to personal achievement is important	41	43.6	45	47.9	4	4.3	2	2.1			4.36	0.67
15. Being committed to honesty is important	54	57.4	33	35.1	5	5.3	1	1.1			4.51	0.65
16. Having the capicity to think for oneself is important	59	62.8	32	34.0	1	1.1	1	1.1			4.6	0.57
17. Having a sense of responsibility for ones own learning is important	50	53.2	39	41.5	3	3.2					4.51	0.56
18. Being able to think holistically(to see the whole as well as the parts) is important	51	54.3	28	29.8	10	10.6	2	2.1			4.41	0.77

SECTION C

Please respond to the following statements indicating your level of agreement by circling the number that best reflects your respons

	Stongly agree 5		Agree 4		Uncertain 3		Disagree 2		Strongly disagree 1		Mean	SD
	f	%	f	%	f	%	f	%	f	%		
19. Self-evaluation offers students an opportunity to view and examine their learning processes	26	27.7	52	55.3	11	11.7	2	2.1	2	2.1	4.05	0.83
20. I would enjoy a course in which self-evaluation is required	11	11.7	38	40.4	26	27.7	14	14.9	4	4.3	3.41	1.02
21. Students' opinions about their participation in a course should be sought	26	27.7	49	52.1	16	17.0	2	2.1			4.06	0.73
22. Students' opinions about the assignment of the final grade in a course should be sought	22	23.4	49	52.1	17	18.1	4	4.3	1	1.1	3.94	0.83
23. Students aquire valuable skills when provided the opportunity to assess their own learning in a course	27	28.7	43	45.7	20	21.3	3	3.2			4.01	0.8
24. It is the instructor's responsibility to assess student learning and determine the final grade	5	5.3	40	42.6	27	28.7	18	19.1	2	2.1	3.3	0.92
25. Self-evaluation should be a required component in a credit course	9	9.6	29	30.9	37	39.4	15	16.0	3	3.2	3.28	0.96
26. When I have the opportunity to evaluate myself in a course I put more effort into the course	8	8.5	26	27.7	2	28.6	1	14.3	8	8.5	3	1.12
27. I have developed more confidence in myself through completing self-evaluations	9	9.6	24	25.5	29	30.9	23	24.5	7	7.4	3.05	1.1
28. Self-evaluation makes me feel more responsible for my own learning	14	14.9	36	38.3	19	20.2	18	19.1	6	6.4	3.37	1.15
29. Students should be involved in establishing the criteria for self-evaluation in a course	14	14.9	52	55.3	22	23.4	3	3.2	2	2.1	3.78	0.82

SECTION D

Based on your experiences with self-evaluation in college courses please rate the following items in terms of their frequency:

	Always		Frequently		Sometimes		Never		Mean	SD
	4		3		2		1			
	f	%	f	%	f	%	f	%		
30. The purpose of using self-evaluation was clear	21	22.3	33	35.1	40	31.9	5	5.3	2.79	0.87
31. The process of how to complete the self-evaluation was made clear	32	34.0	30	31.9	23	24.5	4	4.3	3.01	0.9
32. The criteria on which to base the self-evaluation were clear	22	23.4	33	35.1	29	30.9	5	5.3	2.81	0.88
33. Students were involved in establishing the criteria for the self-evaluation	5	5.3	12	12.8	34	36.2	37	39.4	1.83	0.87
34. Students' understanding of self-evaluation was considered prior to the process being implemented	13	13.8	26	27.7	32	34.0	17	18.1	2.4	0.97
35. Self-evaluation was imposed on students	20	21.3	25	26.6	35	37.2	9	9.6	2.63	0.95
36. Students were informed at the of courses that self-evaluation was an option	15	16.0	14	14.9	23	24.5	37	39.4	2.08	1.12
37. Peer feedback was encouraged in the process of self-evaluation	10	10.6	21	22.3	40	42.6	18	19.1	2.26	0.91
38. Self-evaluation reinforced and enhanced my learing of the specific content or skills being assessed	18	19.1	24	25.5	33	35.1	14	14.9	2.52	0.99