

**Role model/mentor influence
on the career path of college professors**

By

Ricky Clace, BSc, HBA, B.Ed, B.Ed(Adult. Ed)

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LAKEHEAD UNIVERSITY
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CHAPTER ONE

The Problem

Introduction

The original intent of the proposal was to study the impact of role models on a small body of teachers in the Engineering Technology division at an urban college, preferably with experience teaching math and science. However, due to the overlap between role models and mentors, the decision was made to have the study encompass the influence of both. The study investigated three key time periods in the participants' lifetimes when the influence of role models/mentors may have had an impact.

In chapter 1, I outline the context of the research, and my relationship to it. This chapter also provides my research questions and defines key terms that I will use. In chapter 2, the relevant literature is examined, with an emphasis on understanding the influence that role models/mentors have at various times during the career path. Chapter 3 explains the qualitative methodology and the narrative method used to generate the four case studies that are the research text for the study. In chapter 4, the individual case studies are presented. Chapter 5 presents an analysis of these case studies focusing on the influence of family, teachers and colleagues/friends at three crucial time periods. Finally, chapter 6 discusses the findings and implications of the study.

Context

The Province of Ontario has 24 colleges of applied arts and technology, employing 15,000 full time and 19,000 part-time staff and faculty. The system educates 150,000 full time and 350,000 part time students in 200 communities. Throughout the system, there are in excess of 600 different programs offered. In addition, 33% of Ontario's workforce, approximately 2.1

million workers, has a college qualification (Colleges Ontario, 2008). Despite these impressive statistics, and the obvious benefits to Ontario of the college system, research dealing with faculty in the college system, their histories, motivations and career paths seems to be non-existent.

Personal Rationale and Observations

I am currently a college professor. Prior to teaching at the college, I worked for several years as an Engineering Technologist. I have benefited greatly from having a role model/mentor to assist me in my career path but there have been times when such individuals were not available. I have always had a certain curiosity when I observe families where parent or family role models/mentors exist, and the curiosity extends to the impact that later role models/mentors have on educational and vocational choices and success. My belief, approaching my study, is that while role models/mentors have an impact, there is multi-dimensionality to the process and the presence of role models/mentors, while important, is only one of several factors.

I have observed examples of families that have several of their members working in the same profession; nurses, lawyers, doctors, teachers, police officers and chiropractors. One local example is a pig farmer who has five children, four of whom ended up pursuing careers as medical doctors. A second example is of a nurse who has three daughters who are also nurses. Anecdotal evidence seems to suggest that it is not uncommon for people to pursue educational and career paths similar to other family members. The influence that is exerted on children from significant individuals in their lives is undeniable: "Throughout elementary school, children begin to integrate knowledge from their interactions with teachers, peers, and families in order to construct identities based on their understanding of what they are good at and capable of doing" (Harvard Family Research Project, 2006, p. 1). Gorman (1998, p. 10), further states that

“research, consisting mostly of large-scale surveys, suggests that parent’s attitudes toward education have a significant effect on their children’s educational aspirations.”

Conversely, it has also been observed that there are occupations where the number of individuals of a specific gender or ethnic background is out of proportion to the general population. During a vacation the author took to the Dominican Republic it was observed that numerous male children were playing baseball. This observation occurred when the recruitment of baseball players, like George Bell, Tony Fernandez, Juan Guzman and Sammy Sosa from the Dominican Republic had received wide spread media attention. The motivation for this study arose from these observations and a curiosity about the impact that role models/mentors have on career choice, specifically in educational careers involving science, engineering and mathematics.

Purpose and Methodology of Study

The purpose of my study was to explore the influence of role models/mentors on the career paths of college professors. Specifically, the research explored whether a small group of college professors in a School of Engineering Technology, who primarily teach mathematics, science and engineering, had personal role models/mentors who influenced their initial career choices and their decisions to subsequently pursue careers as educators. Given the specificity of this group, I would be reticent to generalize my findings beyond this sample.

In my research, I have used a qualitative case study methodology. This involved individually interviewing college professors and analyzing the data from a framework derived from the literature. Based on my review of the literature, I investigated three major time periods that are important to understand in the model/mentor relationship. These time periods are when making post-secondary educational choices, when making initial pre-teaching career choices and

when transitioning into the teaching career. The first time period that was considered was the participants' early lives and through their original post-secondary education, to see if there were any identifiable role models/mentors who influenced their educational choices. Second, as many of the teachers at the college come from industry, the impact of role models/mentors during their pre-teaching careers was explored. The third was when they decided to become educators, and the influences on them during the transition.

These time periods were explored through the participant's answers to the following general questions.

1. How did role models/mentors impact on initial career choice?
2. How did role models/mentors impact on initial career success?
3. How did role models/mentors impact on the decision to pursue a career in education?
4. How did role models/mentors impact on educational career transition and perceptions of success?

The definition of success is a problematic concept. I define success as the participants' perception that they were successful in their non-teaching career and then subsequently in their teaching career. Success is subjective in nature and un-verifiable. However, as the study explores the perceived impact from the participant's perspective, the definition of success can be considered adequate.

The interviews took place during the month of October, 2008. The raw data is composed of the digitally recorded interviews. These recordings were professionally transcribed. Both the digital recordings and the transcribed interviews are in an electronic form and these will be stored for five years at Lakehead University as per University policy.

Defining mentors and role models

Lockwood (2006, p. 36) has defined role models as “individuals who provide an example of the kind of success that one may achieve, and also often provide a template of the behaviors that are needed to achieve such success.” The role model’s impact on an individual’s success may be confounded or blurred with that of a mentor. A mentor is considered to be a person with more experience who is involved in guiding or assisting a person in their educational, career or life path (Allen & Eby, 2004; Lockwood, 2006). As mentors may also serve as role models, and many of the role functions are similar, both are included in this study with only minimal differentiation as needed. For the purposes of the study, I will use the term role model/mentor to mean a person, who through their behaviour or active engagement has helped shape the career choices of the participants.

Allen and Eby (2004) consider two dimensions of the mentoring relationship: career and psychosocial. The career aspects encompass coaching, exposure to the expectations of the workplace and challenging assignments associated with the work, while psychosocial aspects include functions such as counselling, acceptance and friendship. The study asked the participants to consider both the career and psychosocial dimensions.

Working with the participants

The participants of the study are colleagues of mine, hence their involvement is due to targeted sampling. I believe that I have been vigilant in maintaining objectivity, and there are advantages to my familiarity, because it allowed me access to the participants and an understanding of their occupational demands. It also increased the credibility of the study, by providing “Prolonged engagement sufficient to gain an overview of the social entity and its

context to minimize sources of misinformation and distortions and to build trust” (Isaac & Michael, 1995, p. 222). As Patton (2002, p. 28) states in describing Lofland’s four people-oriented mandates in collecting qualitative data:

First, the qualitative methodologist must get close enough to the people and situation being studied to personally understand in depth the details of what goes on. Second, the qualitative methodologist must aim at capturing what actually takes place and what people say: the perceived facts. Third, qualitative data must include a great deal of pure description of people, activities, interactions, and settings. Fourth, qualitative data must include direct quotations from people, both what they speak and what they write down.

Knowing the individuals and being familiar with them does not preclude meeting these mandates, in fact it can lead to a more in-depth study.

There are ethical implications that arise as a result of my familiarity with the research participants. By being aware of potential ethical concerns, and possible conflicts of interest as a result of my professional and personal proximity to the participants, I have been vigilant to ensure that information that the participants expressed was treated confidentially, respectfully and ethically. I have also been careful to ensure that my analysis is only drawn from the data, and not from any background information which I possess as a result of working with the participants.

Significance of Study

If the presence of successful role models/mentors has impacted on academic and occupational success, the importance of positive role models/mentors needs to be accentuated. The stories of these successful individuals, including their tribulations, failures and ultimate successes, need to be examined to provide insight for current students and future educators. The literature search on mentoring and role models showed a significant amount of research concerning teachers and other professionals, but there is a gap in the literature around mentoring and role models for faculty in community colleges. This study adds to the research on mentoring by focusing on this group and the experiences of four college faculty members.

CHAPTER TWO

Literature Review

Introduction

In this chapter I explore the relevant research regarding the impact of role models/mentors on the career development of college professors, using three specific time periods: before initial non-teaching career, initial career and during the transition to college teaching. Each of the participants has moved along a continuum, but not all individuals teaching in the college have necessarily experienced all of these stages.

The literature review is presented in five sections: a general overview of the literature around mentoring to provide a contextual foundation for the study, an examination of the time period before the initial non-teaching career, the initial career, the transition to college teaching and a summary of the relevant findings of the literature review.

Mentoring Overview

Mentoring is a strategy used in educational facilities to socialize new members in the educational community. Views on how to conceptualize mentoring vary, but authors tend to agree that it is a particular form of relationship in which “an element of mutual choice ... is an essential first step” (Awaya, McEwan, Heyler, Linsky, Lum, & Wakukawa, 2003). For the purposes of this thesis I use the conceptualization of mentoring proposed by Awaya et al., (2003). This conceptualization has five components; the mentor-protégé relationship is conceived of as a journey, there is equality in the relationship, the mentor is a guide to practical knowledge, the mentor is a source of moral support and, the mentor allows the protégé to prove their worth.

Pre-Initial Career

Early in life, parents and family members serve as role models and potential mentors. Entwisle and Alexander (1990, p. 469) discussed family influences on differences in performance and presented that “parents’ expectations are a potent influence on children’s math skills at the point of school entry. This kind of parental psychological resource is equally potent for blacks and whites and holds for all socioeconomic levels.” Bregman and Killen (1999) studied the effect of parental influence on vocational and career choice. While they found that there were many types of decisions which adolescents felt were outside parental jurisdiction, the results of their study indicated “that adolescents and young adults do not conceptualize decisions related to vocational development strictly in terms of personal choice, outside parental jurisdiction” (Bregman & Killen, 1999, p. 267). It has been demonstrated that “mothers’ predictions of their children’s success in a math-oriented career during the seventh grade were positively related to their daughters’ pursuit of careers in physical sciences” (Bleeker & Jacobs, 2004, p. 105). These authors did not, however, find a similar relationship for maternal beliefs and career choices for sons. The expectations that parents have for their children may directly influence the children’s own expectations. Jodl, Michael, Malanchuk, Eccles and Sameroff (2001, p. 1248) stated that “parents’ expectations for their children’s eventual educational attainment have been related to children’s own educational expectations and self-concepts, as well as to their actual academic performance.”

While parents must be acknowledged as having a significant potential to influence an adolescent’s educational and vocational choices, they are not the only influences. Dick and Rallis (1991, p. 291) found that “survey findings indicate that both men and women who choose engineering or science careers have had some specific encouragement to do so.” High school

students asked to indicate perceived influences on their career expectations indicate “parents, friends, and teachers of the same sex were perceived as most influential” (Paa & McWhirter, 2000, p. 40).

The simple presence of a role model/mentor however, may not be enough to have a positive impact. Bandura (1997, p. 87), making a case for the effect to be considered achievable, stated that “seeing or visualizing people similar to oneself perform successfully typically raises efficacy beliefs in observers that they themselves possess the capabilities to master comparable activities.” A careful read of the previous statement emphasizes that a similarity must exist between the observer and the role model or mentor. The ability of individuals to draw parallels between themselves and their role models/mentors, to have in their minds a similarity, is a factor that may impact on the effect. Lockwood and Kunda (1997, p. 101) studied the potential effect of role models on individuals and found that; “Whether superstars exert any impact on others depends on their perceived relevance. When they do, the direction of that impact depends on the believed attainability of their success: Models of attainable success can be inspiring and self-enhancing, whereas models of unattainable success can be threatening and deflating.” Lockwood and Kunda’s (1997) study illustrated that the impact that a role model/mentor may have is very much mitigated by the individual and their perception(s) of both the role model/mentor and themselves.

The Harvard Family Research Project (2006 – 2007) published a series of papers exploring the role of family involvement in school success. While they did not use the terms role models or mentors to describe the parenting role, the underlying theme was that “family involvement is linked broadly with school achievement across different socioeconomic and ethnic groups” (Harvard Family Research Project, 2006, p. 3). Many of the actions and attitudes

attributed to parents in this series of papers can be tied to a mentoring role. Furthermore, for a specific ethnic group the Harvard Family Research Project found that mentors were found outside of the family: “Immigrant Latino families tend to manage their children’s education by stressing its importance, providing non-verbal support, and allowing their children to seek mentors in the community” (Harvard Family Research Project, 2006, p. 5). As well, it was found that if parents placed a high emphasis on academic achievement, there was a positive impact on the children’s grades.

The Harvard Family Research Project (2007) found that the relationship between parental involvement and academic success continued into the teenage years and post-secondary educational choices: “Yet family involvement in education remains a powerful predictor of various adolescent outcomes. Perhaps most importantly, family involvement relates to higher rates of college enrolment” (Harvard Family Research Project, 2007, p. 1). Familial influence, support, encouragement and mentoring are even more powerful than the support provided by their peers. Patrikakou (2004), in an analysis of data from the National Educational Longitudinal Study, reported that “findings in this digest indicate a strong form of parent involvement is expectations. Parents, who hold high expectations for their teens, communicate them clearly and encourage their adolescents to work hard in order to attain them, can make a difference in students’ success.”

Additionally, teachers and support staff within educational institutions can serve as role models/mentors. Harris and Halpin (2002) designed a research instrument titled the *Factors Influencing Pursuit of Higher Education (FIPHE) Questionnaire*, which investigates a wide spectrum of factors involved in student success. In their design work, Harris and Halpin tried to consider a wide range of variables that impact on a person’s decision to enrol in a post-secondary

program of study, and included a scale entitled “Presence of Role Models” in the initial pilot study and subsequent validation study. However, due to poor item-total correlations, they removed the Presence of Role Models scale after the validation study. Some of the items were reworded and included in a demographic section. Other items were grouped in with a scale originally entitled Presence of Mentors, which underwent a name change after the validation study, being called Secondary School Support Scale. In addition, Harris and Halpin included scales for Parental Support, Family Influence and Peer Influence in all three studies. The inclusion of these scales may indicate that while the authors were able to find that high school teachers served as mentors, the effects could be captured in the survey items dealing with personnel in the secondary school system. This seems to indicate that the authors were unable to eliminate the overlapping effects of mentors and support mechanisms from the role model effects or were not able to find significant results for their role model items. Essentially, in the study any role model effects were confounded by the other factors related to the teacher’s position.

In a study of student performance in Texas, Ferguson (1991, p. 490) found that the greatest factor, outside of personal family circumstances, to impact on student success was the teacher’s ability: “Finally, beyond school finance reform, what evidence here suggests most strongly is that teacher quality matters and should be a major focus of efforts to upgrade the quality of schooling. Skilled teachers are the most critical of all school inputs.”

There is a substantial amount of work done examining the following issues: the educational experience, the role of the institution, day to day factors, and gender issues surrounding role models, level of similarity between participant and role model and the role of persistence in academic success. In addition, a considerable body of literature exists concerning the mentoring relationships in certain occupations.

Castles (2004, p. 175) presents a strong case that factors related to persistence play a crucial role in the ultimate success or failure of students in post-secondary education. She suggests that, of all the factors analyzed, “support figured highest of all in the analysis [and] it could be provided by anyone.” However, Castles (2004, p. 169) does not make a specific case for support coming from role models: “There was no evidence to show that support from the family was more important than support from friends or work colleagues, and none to indicate any one type of support was more useful than another”. The question regarding the importance of role models may not have been examined, or may have been included in all types of support.

According to Belzer (2004, p. 44), “experience does influence adults’ approaches to learning, their capacity to integrate new information, and the ways in which they build concepts around new knowledge.” This is an underlying theme upon which my research was based. By studying and being exposed to role models, any student’s approach to learning could be powerfully influenced. The participants in Belzer’s (2004, p. 53) study were African-American women who indicated:

they had lacked support that might have aided them in their earlier educational efforts. Absent, alcoholic and overly stressed parents, despite their stated interest in their children’s education, often left them on their own to make decisions about attending school and achieving success and without guidance and support when the participants experienced difficulty. There was little assistance at school either. Although caring teachers were described by most of the women, they were rare, and no one identified personnel who took on a mentoring role for them.

While not indicating that the presence of role models or support will have a positive impact on success, it does seem to illustrate that the lack of role model or mentor support may contribute to academic failure.

Francis and Kelly (1990) studied environmental fit and high-risk college students. A loose definition of environmental fit is “the interactional experiences of students with each other, with faculty, with counselors, and with institutional services at large in order to determine the influence of these forces on a student’s academic performance” (Francis & Kelly, 1990, p. 234). Allen and Eby (2004), consider one aspect of mentoring to involve psychosocial aspects which include functions such as counselling, acceptance and friendship. An individual taking on such a role could potentially increase a high-risk student’s probability of academic success. Francis and Kelly (1990, p. 233) continue by saying that “the notions of disadvantaged and at-risk students [are] categories that often serve to mask the sensitive matter of race.” Work such as this raises the question of whether the inconsistencies between success rates and population demographics are a result of role model limitations or of prejudices, either perceived or real. Francis and Kelly (1990, p. 240) also make a strong case for the investigating the importance of environmental fit being a factor in a student’s success:

If it can be shown, as we think it can, that the extent of student integration into the institutional structure of a college significantly affects their academic success or failure, then some consideration must be given to the analysis of the implementation of policies designed to absorb students into a school’s culture.

In their study, Francis and Kelly (1990) indicate that the role model factor and the environmental fit factors were not exclusive because role models may be fellow students or educators. The presence of role models and more specifically mentors could alleviate some of the environmental fit concerns, by providing not only educational support but also environmental fit support. For most post secondary educated individuals in our society, the end goal of education is to pursue a career. Role models and mentors have a continued potential to facilitate success during their education and as they move into their careers.

Initial Career

The choice of initial career may be interlinked with post secondary educational choices. In many cases, educational choices are made to achieve career goals. As such, separating the influence of role models/and mentors as they effect post-secondary educational choices as opposed to initial career choices can become simply a semantic exercise. However, while acknowledging the overlap, an investigation of the research involving influences on career choice is still warranted.

The influence of parents is a prevalent theme in the selection of a career. Borg (1996) in a study of students in high school in Malta concludes that the effect is even greater than that of their educational experiences.

Parental influence on any youth's choice of career, whether expressed consciously or unconsciously, is quite strong. In their everyday life, parents cannot avoid placing values on different occupations, which cannot help but influence the young school leaver.

This conclusion is supported by Pearson and Bieschke (2001, p. 307) who state:

“Participants also noted that family relationships influenced their career development, including relationships with both nuclear and extended family members.” Ferry, Fouad and Smith (2000, p. 359) when considering participant’s choices of careers in mathematics and science state: “Parental encouragement in math and science was found to significantly influence learning experiences. Learning experiences, in turn, were found to significantly influence self-efficacy and outcome expectations” and self-efficacy plays “a significant role in influencing college students’ interest in mathematics and science-relevant activities.” The authors continue by relating interest to in career selection.

In addition to finding “that parents and siblings and other relatives are people to whom students mostly turn when involved in vocational planning” Borg (1996) also acknowledged that friends influence decision making processes, and stated “the assistance of school friends is shown to be more popular among girls than boys.”

In the context of educational choices leading to eventual careers, Borg (1996) noted that teachers are also influential and stated “perceived support from parents and teachers is found to be an important predictor of children’s option choice at school.” Dick and Rallis (1991, p. 291) also noted that for students pursuing careers in engineering or science, teachers are perceived as being influential “much more often than (for) students choosing other careers.”

Once an individual enters the workplace, the potential impact of role models/mentors continues to be a factor: “Research has demonstrated that individuals, who are mentored advance more rapidly in the organization, earn higher salaries, are less likely to leave the organization, and express more favorable work attitudes than individuals who are not mentored”

(Allen & Eby, 2004, p. 129). In the workplace, mentors are usually high ranking, senior members of the organization who assist in guiding the protégé's career (Ragins, 1989).

Allen and Eby (2004) explore the issues surrounding same gender and opposite gender mentor relationships. In addition to finding that more experienced mentors provide a greater degree of career mentoring as opposed to psychosocial mentoring, Allen and Eby (2004, p. 136) state:

Consistent with theoretical perspectives such as social role theory, male mentors reported providing more career-related mentoring, whereas female mentors reported providing more psychosocial mentoring to their protégés. One implication of this finding is that it may be helpful for individuals to cultivate multiple mentorships with mentors of different genders in order to reap the full benefits of mentoring.

Higgins and Kram (2001, p. 281) agreed with the finding, "by offering theory and propositions in which mentoring is regarded as a multiple relationship phenomenon – as a developmental network." While the gender issues involved in mentoring will not be explored in the study, it is important to acknowledge gender as a factor. The multiple mentor issue only appeared in the career literature dealing with mentors and seems to indicate a new area of research.

In certain professions, such as engineering, licensing as a Professional Engineer is contingent on a four year internship. During the internship period, the intern is under the supervision of licensed Professional Engineers who are expected to "provide guidance, encouragement and support to the applicant" (Professional Engineers Ontario, 2002, p. 6). In

addition, there is the expectation that the employer will “provide experience opportunities, act as referees in the licensing process, or serve as mentors where required” (Professional Engineers Ontario, 2002, p. 4).

For the legal profession, a requirement for licensing is a ten month articling component (The Law Society of Upper Canada, n.d.(a), p. 1). During the articling period, the Articling Principal, a practicing lawyer, acts in a supervisory capacity. With large firms, the expectation is that “One member of the firm will be designated as a mentor for the Student-at-law. The Student-at-law will be encouraged to approach the mentor to discuss, in confidence, any problems or areas of concern relating to the Student-at-law’s articling experience” (The Law Society of Upper Canada, n.d.(b), p. 1).

Many other industries have less formal mentoring requirements; however the apprenticeship model for trades in the Province of Ontario should be mentioned. These apprenticeship periods last several years and allow apprentices to learn skilled trades from experienced workers. In addition, there are many professions that have, as part of their pre-requisite education, a clinical period where behaviours are modeled and the students are mentored. Nursing, psychology and most health care professions include such a period.

The impact of role models/mentors may be a factor in a person’s choice to pursue a career in education. It is possible that exposure to either good or bad teachers influenced a person’s desire to become an educator. It is also important to explore the effect that mentors and role models had during the transition period and as the neophyte teacher developed their teaching repertoire. In the next section I will explore the influence of role models/mentors on nascent teachers as they enter the teaching profession.

Teaching Career

Sanders (2004, p. 10) in a presentation to the Presidents of United States' higher education institutes stated: "Clinical partnerships between higher-educational institutions and K-12 schools to provide new teachers with on going assistance and mentoring would significantly enhance the chances of their success and survival." Individuals entering the teaching profession at post-secondary levels, many of whom have not had the benefit of formal teacher training could potentially benefit from these resources as well. The Ontario College of Teachers recognizes the importance of mentoring and in the membership magazine *Professionally Speaking*, Browne (2001) indicated "it's no surprise that mentoring – the process of using experienced professionals to pass on their expertise to those new in the profession – is increasingly regarded as an essential component of professional development." While the acceptance of mentoring for new teachers has increased in the elementary and secondary school systems, there appears to be no evidence of such formal systems existing in post-secondary institutions.

In addition, results of the programs in the elementary and secondary school systems have not always been satisfactory. Hargreaves and Fullan (2000, p. 50) note that in teaching "induction and mentoring programs have become widespread; however, their implementation has often been disappointing." These authors undertook a historical analysis of the evolution of the teaching profession and attempted to explore future challenges for mentoring relationships between new and experienced teachers. They presented that the process involves many dimensions, not simply communicating practices and content: "Mentoring is a means to a larger end: that of creating a strong, improvement-oriented profession in schools, professional associations, and teacher unions" (Hargreaves & Fullan, 2000, p. 56).

In his analysis of policies regarding induction experiences and new teacher turnover, Smith (2007, p. 275) stated “the induction literature... suggests that it is beneficial to match mentors and mentees by grade and subject taught, to train and compensate the mentor, and to have more than a trivial amount of contact between the mentor and the mentee.” This article also reiterated the oft made claim that “as many as 50 percent of new teachers leave within the first five years of entry into the occupation” (Smith, 2007, p. 277). Ingersoll and Kralik (2004, p. 1) in a review of existing empirical studies on induction programs found:

While the impact of induction and mentoring differed significantly among the 10 studies reviewed, collectively the studies do provide empirical support for the claim that assistance for new teachers and, in particular, mentoring programs have a positive impact on teachers and their retention.

Mentoring for new teachers has been identified for many years as a concern. In 1996, the United States’ National Commission on Teaching and America’s Future “recommended that the first years of teaching be structured like a medical school residency, with beginning teachers regularly communicating with veteran teachers on instructional practices and classroom management as well as receiving constructive feedback and formal evaluations of their performance” (Curran & Goldrick, 2002, p. 3).

While my thesis is focused on the impact of role models/mentors, it should be noted that the research indicated that the induction process for new teachers should be multi-dimensional. “Mentoring is a useful component of induction, but only one component of a comprehensive induction system” (Fulton, Yoon, & Lee, 2005, p. 1). These authors support mentoring as a part of a program that includes “a network of supports, people, processes that are all focused on

assuring novices become effective in their work” (Fulton, Yoon, & Lee, 2005, p. 4). This view was also put forward by Smith and Ingersoll (2004, p. 706) who stated “teachers participating in combinations, or packages of mentoring and group induction activities were less likely to migrate to other schools or to leave teaching at the end of their first year.”

In their study of faculty serving as role models, Bettinger and Long (2005, p. 157) stated that “male students with male professors initially in education courses took 12.9 more subsequent hours and were much more likely to major in the subject” and that “these results further lend support to the idea that same-gender faculty may positively impact student interest in a subject.”

Summary

In the literature review, I have explored the literature as it relates to role of mentors and or role models. The definition I have used for a role model/mentor is a person, who through their behaviour or active engagement has helped shape the career choices of the participants. The impact of role models/mentors has been discussed in terms of three stages along a continuum. The literature supports the position that for each of the three stages considered, pre-initial career, initial career and transition to teaching, there is a potential for role models/mentors to have an effect.

CHAPTER THREE

Methodology and Method

Introduction

The study used a qualitative methodology, and was conducted to generate four case studies. It explored the role of role models/mentors on the pathways that professors in the Engineering Technology division at a community college had taken to reach their eventual position. Creswell (2003, p. 15) emphasized that case study methodologies are appropriate when “the researcher explores in depth a program, an event, a process, or one or more individuals.” McMillan (2004, p. 12) stated that case studies “concern in-depth study of a single or a few programs, events, activities, groups or other entities defined in terms of time and place.” A further justification for the use of the case study methodology is that it is “preferred in examining contemporary events, but when the relevant behaviors cannot be manipulated” (Yin, 2003, p. 7).

Study Design

A qualitative approach was used because of the retrospective, descriptive and hermeneutic nature of the study. Four semi-structured interviews, one per participant were used to collect historical data. The interviews also allowed me to “elicit views and opinions from the participants” (Creswell, 2003, p. 188). The raw data for the study was the participants’ responses to a semi-structured interview composed primarily of pre-defined open-ended questions. The intent of these questions was to investigate the participant’s beliefs and feelings about the impact that role models/mentors had at specific times in their lives. Patton (2002, p. 114) reminds us that hermeneutics challenges “the assertion that an interpretation can ever be absolutely correct or true. It must remain only and always an interpretation.” Therefore, the study, while

acknowledging the interpretive nature of the retrospective narrative, focused on the commonalities in these narratives.

The results of any qualitative study are strengthened through the use of triangulation (Creswell, 2005; Isaac & Michael, 1995; McMillan, 2004; Patton, 2002), to use multiple sources of data to add depth and credibility. The nature of the study did not lend itself to external triangulation in the traditional sense, the opportunity given to each participant to verify the transcript of their interview and review the draft of their case study acted as a member check. This built credibility between the participants' interviews and the interpretations drawn from those interviews. Lincoln and Guba (1985, p. 283) acknowledged this as an acceptable form of triangulation: "Triangulation of data is crucially important in naturalistic studies. As the study unfolds and particular pieces of information come to light, steps should be taken to validate each against at least one other source." The self-reporting nature of the data meant that the only source that the data could be checked against was the interviewee. The only option to accomplish a check was to allow the participant the opportunity to review their case study and verify its contents.

Various sets of criteria exist for ensuring quality, credibility and rigor in a qualitative study. According to McMillan (2004, p. 277) "Credibility is defined as the extent to which the data, data analysis, and conclusions are believable and trustworthy." Creswell (2005) proposes that there are three main components to validate findings: triangulation, member checking and auditing. Patton (2002) feels that credibility relies on rigorous methods, the credibility of the researcher and a philosophical belief in the value of qualitative research. In a similar vein, McMillan (2004) presented that credibility has four factors: triangulation, reliability, internal validity and external validity. Lincoln and Guba (1985) and Isaac and Michael (1995) presented

a convincing argument for the inclusion of credibility, transferability, dependability and confirmability as the major elements required to establish trust and confidence in research results. These four elements were considered when establishing trust and confidence in the research interpretations.

To ensure credibility, Isaac and Michael (1995) summarized five techniques originally proposed by Lincoln and Guba (1985). The first is the integrity of any observations which are made. In this research, no observations were made of the participant's work. The second technique proposed is peer debriefing, in which the thesis was open for critique. The author approached other graduate students and had them serve in the capacity of peer debriefers. While a full negative case analysis is impossible due to the responses given in the interviews, there are aspects of the technique that were discussed. To meet the referential adequacy component, all audio data was digitally recorded in order to provide an original set of data for ongoing analysis as an unbiased backdrop to the study and to ensure that findings were consistent with the original data. The last technique to establish credibility is through member checks. Participants were encouraged to review their individual case study, and make any additions or clarifications that they felt were necessary. These member checks are what Isaac and Michael (1995, p. 222) adapted from Lincoln and Guba (1985) state are "the most crucial technique" in establishing credibility. As stated by Isaac and Michael (1995, p. 222) this involves: "testing the authenticity of these data, analytic categories, interpretations and conclusions ... without the agreement of those whose reality is being constructed, credibility is nil."

The transferability criterion was considered as a result of the agreement or lack of agreement between the literature and the findings of the study. Dependability was enhanced by the thesis supervisor, who regularly examined both the process and the developing study. If

there were inconsistencies or shortcomings in either, the thesis supervisor indicated these and a discussion took place and actions were taken to eliminate the inconsistencies. While not entailing a “full scale inquiry audit” (Isaac & Michael, 1995, p. 223), other graduate students who critiqued the study and the thesis supervisor served somewhat in an audit capacity, thus enhancing confirmability.

During the interview process, a research log was maintained, containing field and methodological notes. It was used to track any emerging themes or early analytical thoughts. The interviews were digitally audio recorded and transcribed. Once the individual interviews had been transcribed, and subsequently verified by the respective participant, data analysis commenced. This was accomplished by coding for themes or coding data (Creswell, 2005; McMillan, 2004; Patton, 2002). It was through this process and the grouping of similarly coded data that categories or themes emerged.

The interviews took place during the month of October, 2008. The raw data is composed of the digitally recorded interviews. These recordings were professionally transcribed. Both the digital recordings and the transcribed interviews are in an electronic form and these will be stored for five years at Lakehead University as per University policy.

Participants

The four participants in this study were professors in the Engineering Technology division of an urban community college in Ontario. These professors all had experience in teaching mathematics and/or science. Time and department size restrictions at the college made a larger participant pool problematic. Creswell (2005) noted that in qualitative studies it is typical to have only a few participants, while Patton (2002, p. 246) recommended a size that

takes into account the purpose of the study and what could be considered “reasonable coverage of the phenomenon.”

Participants were selected by purposeful sampling. Patton (2002, p. 230) states that “the logic and power of purposeful sampling lie in selecting information-rich cases for study in depth.” McMillan (2004) emphasizes that individuals should be selected based on their ability to provide quality information about the topic. Creswell (2005, p. 204) echoes this by saying “researchers intentionally select individuals and sites to learn or understand the central phenomenon.”

The primary criterion for selection of participants was that they have taught in a technology program. Secondary criteria included; having had a first career outside of teaching and having taught mathematics/science or mathematics/science intensive courses. These participants included a professional engineer and individuals trained formally in science and/or mathematics. The participants are all experienced and successful teachers at the college level, able to provide the information-rich data that a qualitative study requires.

Faculty members at the college who met these criteria were approached in person and the face to face request was followed up by e-mail.

General Research Questions

Based on the review of the literature, there are three major time periods that are important to understanding the role model/mentor process. These were explored through the participant’s answers to the following general questions.

1. How did role models/mentors impact on initial career choice?
2. How did role models/mentors impact on initial career success?

3. How did role models/mentors impact on the decision to pursue a career in education?
4. How did role models/mentors impact on educational career transition and perceptions of success?

Drawing upon these general research questions, specific questions for the semi-structured interview were developed (see Appendix A). The intent of these questions was to explore the participants' recollections and feelings about role model/mentor relationships in their own lives.

Limitations

The size of the participant pool and resulting data set, with an emphasis on teachers in Engineering Technology will not allow the results to be generalized beyond the group. It is possible that the results may apply to similar groups, teachers in Engineering Technology at other colleges, with similar upbringing, and educational and career backgrounds.

The manner in which success has been defined by the participants themselves also poses a limitation. Organizational measures of success, such as employee, student and peer evaluations may support, enhance or contravene the participant's view of their level of success in the various aspects studied.

My familiarity with the participants and the environment in which they worked had the potential for me to include undisclosed background information which would not be known to the reader. To deal with this limitation, I was mindful in my writing to link the analysis and discussions directly to the data.

It should also be stated that there are gender and ethnic issues surrounding mentoring relationships. Several authors have considered the feministic perspective of mentoring, with same gender and mixed gender variations. Each of the participants in this study was a Caucasian

male. While acknowledging that gender could be a factor in many cases, the participants' responses gave no indication that it was a concern. Ethnicity was not anticipated to be an issue in the study, but both of these dimensions of role models/mentor relationships could be investigated in future research.

CHAPTER FOUR

Case Studies

Introduction

The data was collected from four interviews with the participants. At the start of the interview, each participant was asked to choose a pseudonym. These interviews took place during the month of October, 2008. The first participant selected Mr. Black, and when each of the following participants was presented with the example pseudonym, they in turn selected Mr. Blue, Mr. Green and Mr. Blonde. The names of the communities in which the participants lived, worked and studied have also been changed. The content of these interviews has been transcribed and the relevant information is presented in the following case studies.

Case 1

Mr. Black: "I let the mentoring help me, I just couldn't lose"

Mr. Black was born in a medium sized community in North-western Ontario, which we will call Ashburton. He grew up in two small towns outside of this city, Greymouth and Richmond, where he enjoyed outdoor activities including scouts and trapping. He later returned to his birth city of Ashburton to complete high school. While in high school, an interest in Air Cadets and the Militia developed, which held over for a few years beyond high school. After finishing high school, Mr. Black worked for a time in a local paper mill, then in a heavy manufacturing industry.

Mr. Black decided to pursue a career with the Canadian National Railway. His initial career of interest was to become an operator /agent with the intention of working towards being a dispatcher:

When I grew up in Greymouth, we didn't have a road in, and the only means of transportation was the Canadian National Railway, the CNR. I often traveled it. My father worked on the railroad as a trainman and conductor. So, I spent a great deal of time just working with the CNR. It fascinated me and I enjoyed it.

It was while working in a remote community, Hastings that Mr. Black started helping and tutoring students in mathematics. Deciding that a change in career was in order, Mr. Black quit his job with the CNR, returned to Ashburton, and pursued a university education. He went to university for five years and obtained a Bachelor of Science degree in Applied Mathematics and Science, followed by a Bachelor of Education degree, with a Type A Qualification in Mathematics and Physics. After teaching on the local supply list for a year, Mr. Black was hired as a sessional faculty in the Technology Division of a community college. Subsequently he was offered a permanent position, and has been teaching at the college for 28 years.

Mr. Black indicated that his initial career choice of becoming a CNR dispatcher was influenced by both his father and his brother-in-law:

My older sister married a gentleman who was a dispatcher for the CNR, and I had the opportunity to visit him in Ceduna. I saw what he did as an operator/agent and saw him become a dispatcher. And I even had the opportunity to do signal work, and stuff in those days and to work on the chain gang and I just thought it would be an interesting career, and those are the two influences, my father and my brother-in-law.

Mr. Black sees his brother-in-law on a regular basis, but unfortunately his father has passed away. He indicates that his brother-in-law's son, Mr. Black's nephew, also became a dispatcher.

Mr. Black's later decision to leave the CNR and to become a teacher was directly influenced by another person:

Because I did a lot of fishing and outdoor things in Hastings and around Yellow River, there was a gentleman that I met who was very well educated. He was a math/physics teacher in Hastings, and we actually became, well at the time I thought it was more than acquaintances. We went canoeing and we did things together, and I spent a lot of time helping students do math on my days off. I enjoyed his companionship and saw that he could enjoy teaching and yet enjoy the things that I always enjoyed as a youth.

Mr. Black also feels quite strongly that he avoided some of the pitfalls that other young people faced in the small community in which he was living, namely alcohol and illegal drugs as a result of the influence that this individual played in his life:

Well, I guess the reaction would be that I never felt like going to the bar, drinking or carousing, or going to Hamersley or to Kingston. I mean I did go, but, it wasn't a desire. Because I grew up in North-western Ontario, I knew that sort of life, and it wasn't what I really wanted. I needed to be mentally challenged, and being an operator and an agent and learning those things and working towards

being a dispatcher was definitely mentally challenging. The thing about it was that's all there was. There was nothing else left to offer me. You know. Nothing more that I could do. It was the means to an end, a job. Whereas when I saw teaching, I saw that you could influence someone young, teach them other morals besides just teaching. It's so much more involved.

While in the process of obtaining his Bachelor of Education degree, the teacher in Hastings served as Mr. Black's associate teacher. This gentleman has since passed away but his example still guides Mr. Black. As Mr. Black pursued his education, there were several individuals that mentored him:

Dr. Zachary, who is now retired from Huron University, he really had a big mentorship with me, in fact he had written me a letter of reference so I could go to Queen's University, which I was accepted at. However, I decided to stay in Ashburton to go to the Faculty of Education. And another doctor who was there was Dr. Tong, who is also retired. And the third one was, who had the most influence I think, whether he realized it or not, was Dr. Blackmore. Dr. Blackmore, who became the vice president at one point, actually taught me how to play squash. And we spent a lot of time together, and I thought the world of him. And I thought the world of how he taught, how he dealt with people, his fairness, and his standards. He had high standards, but he was always fair.

Mr. Black recalls Dr. Blackmore's approach to squash as illustrative of the man's attitude and feels that it demonstrates an example of a role model in action. Mr Black's opinion of Dr. Blackmore's integrity, humility and professionalism comes through very strongly in the following comments:

Well I think that it was funny. When he taught me how to play squash, actually he was just on the squash court, and I just happened to be there, and we started hitting the ball. And then we played, day after day after day for a long time, and it wasn't about the winning, it was about the attitude. It's easy to complain about a reason why you'd lose a game, especially when you're very competitive, and he was very competitive. I watched him in a tournament, he got hit with a racket, split his lip wide open, lost a tooth, and he apologized to his opponent for getting in the way, even though he hadn't been in the way. And he never used it as an excuse. He lost, but he never used it as an excuse. And that is something which, he didn't allow. Something else to allow him an easy way out. Whenever I had him as a teacher, he would say this is how you would do it, and then he would say these are the standards. And he was firm, but he was always fair. And he never played favourites; he was just fair in his approach. I've watched Dr. Blackmore be involved in many committees including the hospital we now have in Ashburton. He's very much involved with it. And his approach isn't "it's got to be my way". No, his approach is very consultative. He's also very knowledgeable and he tries to do the right thing all the time. And he does not

necessarily personally benefit from doing the right thing. And that is what I've learned from him.

Mr. Black felt that certain characteristics contributed to the mentor's effectiveness, professionalism being chief among them. He still occasionally sees his mentor around in social settings:

Well I think when you have a mentor, it's a matter of knowing that you are going to do what is best and knowing that it will work out. And that's what a mentor does to you. The fact that you see a mentor in a difficult situation, and I saw Dr. Blackmore when I know he applied for the presidency and he didn't get the presidency. I know that was a difficult thing, but you would never know it was a difficult thing. It was his whole mannerisms and the way he handled it, so professional and he continued on doing his job, and he continued on supporting the society, the environment that he lives in and you know he was just a great supporter of North-western Ontario and is today. And he never let the little things get in the way of what he's doing, and that's, I think that's really important.

There are a couple of other individuals that played mentorship roles for Mr. Black during his transition time. One was Dr. Zachary, who has been retired for several years now. Mr. Black has fond memories of the relationship that developed between Dr. Zachary and himself:

And Dr. Zachary was caring, for whatever reason he actually liked me, he would search me out, see how I was doing, and if I was down and out, or as you are as a student sometimes you do things, and you wish you would have done better or what have you, and he was always very, very supportive, and caring.

With Dr. Tong, Mr. Black developed a friendship that also went beyond being strictly a student teacher relationship. The sense of importance that he feels about their relationship and the depth of it are apparent in his description:

Dr. Tong played badminton and he personally played badminton with and helped teach my wife how to play. They were very good friends. His wife was very good friends with my wife, and Dr. Tong, is just a gentle man, and I just enjoyed him. And so I got to know his children, and know him, and we played badminton, or I attempted to play, and he, he thoroughly thrashed me now and then, or whenever we play.

As Mr. Black transitioned from student to teacher, he once more indicates that there were several individuals who served as mentors and role models to him. When asked about his initial time in teaching, Mr. Black responds by describing three of his mentors, their different approaches to teaching and their influences on him:

I think I was very fortunate. I don't think I could have had more mentoring than what I had. I was thrust into a group of people that were very talented and had

lots to offer. And I liked them as people, so it made it very easy. I had three people that I was thrust into directly. Those are Simon Reinhard, Eric Klassen, and Gregory Appleton. Mr. Appleton was the first one to retire of the lot. He was tough, but fair. And he reminded me so much of Dr. Blackmore, in so many ways, and he ensured that you covered the material. He allowed me to go sit in his classes and I saw how he did things, and I thought, "Wow". Then I have someone like Mr. Klassen, who was a different type of a teacher. He had lots of standards, but he was gentler in how he would teach. He would be more carefree but still had all the standards, never backed away from the standards. He was the second one to retire. Then I had Mr. Reinhard. We have been very good friends and are friends today, actually all four of us are, all of those people are good friends today. And Mr. Reinhard who was dogmatic in many ways, as I am in a lot of ways, very detail oriented, maybe too detail oriented. He wanted to make sure it's done correctly and not miss anything. I think I just had great mentoring all around. And I think if I let the mentoring help me, I just couldn't lose.

Mr. Black indicates that two of these mentors, Mr. Klassen and Mr. Appleton were ten to fifteen years older than he, while Mr. Reinhard was three years older. While the age difference seems to be important, the teaching experience that these individuals had and were willing to share, seems to be the most important factor.

From the perspective of his 28 years of post secondary teaching, Mr. Black has some suggestions on establishing a mentorship program for new teachers in the college sector. He emphasizes that growth is achieved by working in a shared office with the mentors, working with

them day to day and seeing how they handle different situations. He also feels that the process works best when there is more than one role model. To Mr. Black, the process is definitely one of active engagement, where the individual being tutored is continually entering into situations where they can view and be immersed in both the delivered content and the tutor's delivery style:

When you want to (create a) mentoring relationship, you first have to align the person to be mentored with people who have different skills. It is not healthy to align people with skills which are all the same. You need to allow a person to be exposed to different points of view and different skill sets. And to sit with the mentors and be immersed with them. Shove them into an office where they have to deal with all sorts of different type of points of view, which are all good, they're all good points of view, but they get an opportunity to see how a person with a more strict attitude would do it, and someone who's a little more laid back would do it, someone who's somewhere in between, people who perhaps have really good skill sets in some areas, and less skill sets some place else. I think they need to be, to be lined up and worked with, and be forced to do what I did, take courses with them. Sit down. Go through courses as a student. I mean that's what I did, I went into the classroom and I took a course. I promote that. I think that is the best thing to do.

Mr. Black further explained by giving more specifics about how the dynamics of a mentor-based relationship would work:

I think when you are a role model or a mentor, you shouldn't be with people who have that as their main focus. It should be that you are with people who are just doing a job and your just part of the process. Bringing the person along is part of the process. This process includes: team teaching, teaching in same sections, same subject, being geared up, being involved in community work together, being allowed to go off and accept and have that mentor or role person say "You go ahead and do that, I'm going to make use of it." Good or bad as it may be and then discuss it. Those are the types of things that you need to have happening. And if those things are happening, you're going to have a good role model or a mentor.

When queried about mentorship programs in the post secondary educational field, as in a community college, Mr. Black has the following comments. The essence of these comments is that the process of mentorship must be over an extended period as the person being mentored is exposed to a broader spectrum of the requirements of the position:

I think that, to me it's a three year process, there are many different aspects in college teaching people have to be involved with besides just teaching to make it effective. I think people need to be mentored in terms of handling meetings, developing courses, developing curriculum. Dealing with that side, that is one aspect. Another aspect of mentoring is dealing with students and hopefully dealing with issues, with problems, where you've made a mistake or you could have handled something better and being mentored through that. And dealing

with that. I think there's a lot to be said for that. And perhaps realizing that we all go through that, and that we all have to deal with that. I think that's really important. In addition to the actual going in and teaching, I think the best thing to do is have a three year period where you are actually going in and sitting through classes, because the first time through is new for the person, second time through you start to say, "Well they could have done this differently or that differently." There are times too you say, "Oh they're really changing how they approach this depending upon the type of student that they have." That is a learned process. You don't necessarily see all of that, until you've taught for a little bit, and then you get to observe that. And then you need to observe your mentor or mentors in those types of environments to see that. And that's what makes good mentoring.

Case 2

Mr. Blue: "They didn't try to fix it for you, they just kind of listened"

Mr. Blue was raised in a small community in North-western Ontario. After finishing high school, he went to a North-eastern Ontario University to become an Industrial Chemist. Around Christmas of his second year of studies, the laboratory supervisor from the primary industry in his home town called Mr. Blue to ask if he would be interested in taking over the laboratory supervisor's position when he retired. With a potential offer, Mr. Blue changed his educational path from pursuing a four year Honours Bachelor of Science to pursuing a three year Bachelor of Science so as to be available when the laboratory supervisor retired. Ironically, after Mr. Blue had spent only one year on the job, the laboratory supervisor's position was eliminated and Mr. Blue decided to pursue a career in management. In a management capacity, he worked

for fifteen years as a process engineer in both environment and production aspects of the industry. Unfortunately, an injury occurred that forced Mr. Blue to once more change careers:

I was hurt and for medical reasons, I was told I had to get out of the industry. Then I had to make the decision concerning what I wanted to do next. And I talked to a couple of people that I knew at the local high school, people I was friends with. I talked to them about possible opportunities in the math and the science area because of my previous education. What would I need to do to get into teaching in the high school? I ended up returning to university and getting my Bachelor of Education. I wasn't able to immediately get a full time position. I taught on the supply list for one year and then saw an ad in the paper for a professor of pulp and paper engineering technology. Being the successful applicant, I moved to Syracuse and taught at the local college there. Two weeks after I applied I was in the classroom teaching, with course outlines consisting of simply a title to a course. I taught there for about eight years before moving to Storbaelt College, when they cancelled the program that I was teaching at Syracuse College. And the rest is history.

Through his youth, elementary and high school, Mr. Blue clearly feels that his parents served both as role models and mentors for him. He feels that parental influence is important today as well, but in many cases, it may be lacking:

One of the big advantages I had was, I was fortunate enough going through my own education, from elementary through high school that my parents were highly involved in my education. As far as home work and guidance, making sure I made the right course selections in high school, so that I had options open later on for post secondary. It gave me that opportunity that when I did my undergrad, and then worked, and had to make a career change, I already had the background to pursue those options. And I think that's really an important thing for young people today.

Mr. Blue's initial career choice, to become an Industrial Chemist was influenced by high school teachers. These early mentors have since passed away. Mr. Blue indicates that he was actually initially considering two possible career choices:

Actually, as it's turned out, I had the choice of two career paths. I was considering both teaching chemistry in the high school system when I graduated high school, and working in industry. I chose industry and the biggest reason was the money was a whole lot better. So I made the decision to go the industrial route rather than the educator route. My math teacher in high school was the main person I talked with, as well as my science teacher, who did a variety of things. He taught all the science courses, and he also ran the local radio station. So, between those two, I bounced around the idea of teaching versus industry, and came to the decision to go the industrial route, rather than the education route.

In his initial career, as an Industrial Chemist, Mr. Blue indicates that there was a gentleman who served both as a mentor and a role model. Mr. Blue is still occasionally in contact with this person, seeing him at various industry conferences, but no longer in any form of a role model/mentor relationship:

Yes I had a very good one. He's a graduate from Waterloo in chemical engineering. He was a supervisor when I was working in Minnedosa and he was basically responsible for my decision to move out of the mill in Minnedosa, to look elsewhere and to get into management. The company eliminated the position that I was basically tailored for initially, going into the industry. When I realized they were eliminating this position, and I didn't want to stay in the job that I would have gone in to, he was basically a bouncing board that I could talk to about options, and my future in the industry. He gave me ideas regarding where I could go and what options were available to me. I took his advice and basically dealt with a personal agency, and within a few weeks had a choice of three different jobs to go to. One was the mill I ended up going to. One was in Northern Ontario and the third was in Alberta. And my plan was, because the money was better in Rosewood, I went to the mill in Rosewood.

After he was injured, and a change in career needed to occur, Mr. Blue once more benefited from having individuals that he could discuss career possibilities with and who were willing to mentor him. At the local high school, Mr. Blue found guidance from the chemistry teacher and the shop/mathematics teacher. As part of Mr. Blue's Bachelor of Education training,

one of these individuals, the chemistry teacher, served as his associate teacher. In Mr. Blue's first year of teaching this colleague, who was also the coordinator of the science program, continued in a mentorship role. Both of these individuals have since retired, but Mr. Blue occasionally sees them in social settings:

I went and talked to them because I wasn't sure what was involved. I hadn't contacted the university or anything yet. So I wanted to find out from them the answers to a couple of questions. Firstly, what were the possibilities of getting into the education role? Secondly, what did I need to do on top of my Bachelor of Science degree and my years in industry to be able to teach in the high school system? So they answered both of these questions for me. They put me in touch with people at Huron University and assisted with the application process. They also provided me with information as to the history of what was going on in the local school board and opportunities that were coming up in the future, specifically as far as retirements that were coming up. These concerns were very important to me because I owned a home in the town at that time. The question I was faced with was: Do I look locally or am I going to have to move? The chemistry teacher actually ended up being my mentor through my faculty of education training and I student taught for him in the high school during that time period. And then once I started teaching on the supply list, I was in contact with him, because if I had any questions on classroom management and all that, I went to Michael and talked things over with him. So he continued through that first year that I was in the high school as my mentor. Not formally, but informally.

Mr. Blue describes the mentorship process as being similar to a guided discovery approach to learning. He feels that allowing the new teacher to talk out issues, give suggestions when asked, rather than always telling someone how to deal with a situation is helpful:

One thing that stands out is a willingness to sit and listen to you about what your concerns are and then talk these concerns over. They didn't try and fix it for you, they would talk you through it, and then discuss what you thought would work and present to you other views, other things to look at after that. But they didn't try to fix it for you, they just kind of listened, and they were a bouncing board. And I think that's the key to the mentoring, rather than trying to tell people what to do, to let them discover for themselves what options to try and then actually try the options.

Having had the benefit of several mentors during his education and working career, Mr. Blue has found himself on occasion serving in the role of mentor. One example of a mentor relationship included assisting new teachers. He has also assisted individuals in attempting to achieve their career objectives:

I did when I started teaching at Syracuse, there were two individuals that started soon after and they were very young, in their first teaching positions they had ever had. They had no teacher qualifications, and had just simply started into the college system. I was social friends with them and ended up fulfilling a

mentoring role. And one of them ended up coming to Huron University and doing a Masters degree afterwards. He was in the same boat as I was. He got laid off from Syracuse College and still wanted to get into teaching at a college and I made the suggestion to him that he had to get his Masters, or at least be working on it now to get considered for the college system. So I kind of worked as a mentor for this individual up until last year, and he's still trying to get into the education system.

When Mr. Blue started teaching in the college sector, he feels quite strongly that additional mentorship for him would have been beneficial:

When I started teaching at the college system in Syracuse, I had absolutely no role modeling, no mentoring to start with that was formally or informally offered. I ended up seeking it out, because, I had nothing to start with. I had titles to courses. And that was it. No course outline, so for example, I had a course I was teaching called bleaching. That was my course outline, pulp bleaching. Well, what do you do? Chemical, mechanical, what depth, all of this you had to try and figure out on your own, so I sought out a couple of other people that I knew that were teaching in Southern Ontario. How do you create these courses, and how do you choose what depth to go at different courses? So yes, if there was something local for mentoring it would have been fine with us, which is what we have here at Storbælt, with Lorenzo. Lorenzo was my mentor when I started working here,

as to how the process works. And it was set up somewhat, and I knew who to go to.

Based on the experiences that Mr. Blue had with his first post-secondary employer in Syracuse, and his subsequent teaching at Storbaelt, he has some observations and suggestions to make in regards to mentoring for teachers in the college setting:

I think when a new teacher starts there should be automatically a formal pairing up of a experienced teacher with a new teacher, at least a one on one, if not, two mentors to one teacher. I think that should be set up as a formal process when you start working, so that you automatically, you're introduced to that person and you know you've got that person to go to, then you'll expand your mentoring relationship from there, but at least you've got something that's formally set up already for you when you start. You're not left out in the dark.

One aspect of the mentoring relationship that Mr. Blue feels is important deals with the consistency of delivered content and maintaining a consistent method of evaluation between teachers and classes:

Just to elaborate a little bit more. One important aspect of mentoring is to ensure that standards are maintained wherever you're teaching, and the continuity of the way things are done. I think having a mentoring program would really help, for the overall function into the organization, so that, for example, when you're

teaching a topic, everybody teaches it the same way. And we're starting to see some of those issues coming up now here ourselves. There's different ways things are being taught, which creates confusion for the students, so if we got the mentoring program set up, therefore, when you get new people coming in they're going to be presented with, "this is the way we do things, and why we do them". So I think that would help the students a lot. If you've only got one section even, just so that all the students are taught in a certain way. Because there's often a real easy way to teach something, but it doesn't create the methodology of thought that they need to do the next subject. And that would be maintained through mentoring. Rather than just having the easiest way to teach something, preparing them for their future use of that knowledge is really critical. And unless you know those other courses, what their demand is, coming in new you would have no way of knowing that this is going to make their life easier down the road, where the mentoring would bring that forth. That way it helps both, the new teacher plus the students. And that's really critical.

Case 3

Mr. Green: "There was no one that I could relate to"

Mr. Green held a number of jobs before coming to teaching. His synopsis of his career path indicates a variety of jobs:

Actually I started working when I was still in high school. I had a couple of summer placements. One was in the militia and I did that for one summer.

Following that I got a part time job in a pizza making organization. I was there for about three years. After that, I worked part time in a brewer's retail outlet for about three or four years. I proceeded to go to university after that, and during the summers, during my university career, I worked at a woodlands operation, Polar Forest Products. I did that for about seven summers. After graduating, I found full time employment at one of the local grain elevators, and worked there for four years, prior to starting my teaching career. I taught in the high schools for two years full time and that eventually turned into my full time employment at the college. And that's where I've been ever since.

Once Mr. Green decided to go to university, he chose to study Kinesiology and Physical Education. Mr. Green's interest in this area of study was a result of an interest in sports and physical fitness, and the influence of family and friends:

I did not immediately know what my initial career choice would be. I mean you go through high school not really knowing what your career choice is going to be. You are sort of going through the motions. But I did eventually decide to go into Kinesiology and Physical Education. I didn't have a career in mind. I just knew that I was very active and very athletic so I wanted to continue that because I enjoyed it. So I ended up taking the Physical Education program at the university, but had no real career in mind as I proceeded through those years. Once I graduated from that program, I thought I'd be going into physio, not physiotherapy, but chiropractic work. And so I looked at that, and it was feasible

for me at that time. I was however convinced by colleagues, friends of mine, to go into the teaching program, to become a teacher. And, so, I guess that's when I had my first real sort of inclination of where I wanted to go. So I thought I'd go into teaching primarily because I knew other people who were going into the profession.

He states that his initial educational choice, involving Kinesiology was influenced by his older brother and that teachers that he had in high school impacted on his decision to pursue a career in teaching. He makes special mention of a particular gym teacher that he had in high school:

Well, my brother, who is two years older than I, he was enrolled in the Kinesiology program. He is currently a high school teacher. So I think I looked up to him and followed his lead. Also, there were a couple of teachers who I had in high school, who I admired greatly, Phys Ed teachers, and so I guess in a way I wanted to be similar to them, in what they did. One in particular, stood about five foot nothing, but very, very well respected, in the high school that he taught in, and by chance, or design, I actually had the opportunity to teach with him as a colleague for two years at a local high school. And we became very close at that time. I do see him occasionally, but it's been about, well it's been almost twenty-three years since we last worked together.

As Mr. Green moved into the role of full time teacher, he once more indicates that there were several individuals who served as mentors and role models to him. For Mr. Green, the transition was a fairly lengthy one, primarily as a result of the abundance of teachers, and the resulting shortage of new full time teaching positions in the community in which Mr. Green lives:

The other thing you have to remember is that when I got into teaching, one didn't get a full time teaching position the first year out of university, There was a number of years, probably three or four years, that I worked as a supply teacher. And so in doing that, you would look up to certain teachers. There were people in the profession that you would look up to and want to be like. So yes, there were other individuals that I looked up to and wanted to emulate. Some of them I knew as friends, who had gone through the teaching program with myself, and got a job early on, and others who I just met in the profession through my supply teaching.

While looking for a full time permanent teaching position, Mr. Green pursued temporary employment in other fields. Mr. Green's father-in-law was a role model and mentor to him:

Once I finished university there were no full time teaching jobs available, and so I had to go and look for another alternate job. My father-in-law was actually a foreman at one of the grain elevators, and someone I respected and admired, and he coaxed me into that profession. And so, I guess that was my first real, full time job, if you will. And so that's how I got into the grain handling business. He had

a lot of good qualities, I mean he's passed on since then, but he had a lot of good qualities as a person, very giving, very honest, very straight forward. He was a role model in many ways, and he was also a parent figure. My father had died years before, and so he ended up being my sort of surrogate father if you will. And again, he was a very compassionate, pleasant fellow.

Mr. Green also relied on his friends and colleagues for role-modeling and indicates that from an employment perspective, there were examples in his own family that provided a stimulus for him to pursue career objectives beyond that of his parents:

When you're twenty-two, twenty-three years old, you're still very naïve. You don't know what the world is all about. And so, you look around. I think you look to colleagues sometimes, you look to friends to give you some direction and there's always a safety in numbers sort of way of looking at things. So because they were going to pursue a teaching career I thought I could do the same thing. There weren't people in my life who were in the teaching profession, I mean I was an immigrant and I came over to Canada at a young age, and everyone that I knew and my parents knew, were labourers. But I knew at a very young age that that's exactly what I didn't want to be, a labourer. So I tried to continue with my education so that I could do something different. But I didn't know at the time that education would be the area that I would get into.

When Mr. Green started working in the college sector, there were individuals that he observed and aspired to be like. Mr. Green has recently become a manager at the college at which he had been teaching. He feels that there are certain characteristics that make a good manager:

I think when you start into an organization of this size, there are people who are your superiors, in my particular case there were coordinators of programs that I would be responsible to, and above the coordinators there would be chairs that you would be responsible to, and above them there would be associate deans and deans that you'd be responsible to. So I knew when I started here at the college that these were people that I wanted to aspire to be like, even though I didn't know them personally and maybe even though I didn't have, you know, much communications with them. I knew that potentially I could follow in their footsteps. I've had the opportunity, I guess, to work for many, many different managers and what have you. And that's a luxury I think, because you get to, you get to see the different personalities, the different characteristics at work, and you get to see which characteristics are conducive to a good management style and which ones are not. And because I worked with so many different managers, at so many different levels, I basically got to cherry pick different characteristics from these different managers. There are two managers, in my mind, who stand out, and who I try to emulate as I do my job.

There are characteristics that Mr. Green indicates are important for him, when looking back at those people in the college who he considers his role models:

I'm thinking of a gentleman, first of all. I think the biggest characteristic, in my mind, that I try to emulate is his fairness in the way he deals with the people that he oversees. He was very fair and very transparent, very honest in what he does, and his expectations. Then there was a female manager who was just a genuine nice person. She would spend as much time as she needed to spend with you to solve a problem or issue. She didn't work to the clock, she worked to the problem. When the problem was solved, then the conversation was done. And she was a very genuine, nice person.

When questioned about being a role model for others, either in any of his previous occupational pursuits, or in his current role, Mr. Green does not give any specific examples, but does feel that he has fulfilled this role at times:

I think as you move forward and you tack on the years, there will be new people who come on board, into an organization who may look up to you for advice and ideas and suggestions. Although I might not consider myself or label myself as a mentor per se, the fact that they have come to me to ask my opinion, to ask my suggestions, would possibly suggest to me that maybe I have served in that role.

Another aspect of his life where role models and mentors have been important is in sports and athletics. He indicates that the individuals that have coached him over the years have played a significant role in his development:

I think some of my biggest mentors in my life have been the coaches that I've had in the different sporting activities I've been involved in. I've been involved in sports my whole life. And there have been some significant mentors in that regard. Some of the hockey coaches I've had have served as huge mentors in terms of how to conduct yourself. And I've played sports all through my teenage years and into my university years and there's a mentor/coach I had in my university years, again who was just very ethical, very straightforward and honest in his approach. And I think all that has rubbed off on me in some sort of fashion. That's one of the reasons why I've been so involved with coaching. It's sort of a way to pay back the work that they've done for me.

After starting to work at the college, Mr. Green spent his initial time at the college working in a satellite location, then came to the main campus. At the satellite location there were two people that he feels mentored him. He feels that when he started to teach at the main campus, having a mentor would have also been beneficial.

My first year of teaching in the satellite office there were two people there who had been there for a while. They were older gentlemen, and they definitely served as mentors. I'd go to them for all my questions and they were, you know, very

happy to oblige. So I think I needed a mentor then, and I think they served as mentors. Then I found myself on the main campus. And there was a period of time, my first year on (the main) campus that I felt very alienated. I was an employee who had been with the organization for a number of years and yet coming on to the main campus I felt like a brand new employee. And there just wasn't any person to connect with, learn from, and ask questions of. So it was a tough year, primarily because I had left all the people I had worked with at the other satellite office. So I think at that time I could have used someone. I remember struggling the first month just trying to find a place to sit down and have my lunch, because there was no one that I could relate to. The organization is such a huge organization and everyone has their own departments and groups, so I found it difficult the first month.

In regards to a structured mentoring program, Mr. Green is of the opinion that it would be beneficial but has a caveat in regards to who should be mentoring:

I think that there should be some sort of mentoring pairing going on. I think someone should be identified as the mentor right off the top. First day at work the pair should be introduced to each other and it should be indicated that this person will be the mentor for the first six months, or first year. It should be indicated to the new employee that their job is to learn as much as you possible from them and continue on. There are some people that will make good mentors and there are some people, who will not make good mentors, and it's not a question of what

they know, it's a question of how much they're willing to share. There are some people who want to share everything about what they've learned and there are some people who want to hoard everything that they've learned. So a mentor should be someone who volunteers that service, not someone who is mandated to offer those services. So it's got to be, mentoring is a relationship, it's a wanting to share information. And these people probably do it not because they're asked to but because they want to.

Case 4

Mr. Blonde: "He wanted me to have more"

When asked for a synopsis of his career to date, Mr. Blonde indicated that he had attended both a college and a university. Subsequently he worked as an engineer for a few companies, before becoming a college professor:

I'm an electrical engineer, professional engineer licensed in the province of Ontario. I am a graduate of an Electrical Engineering Technology, (Computer /Control) program at Storbault College. I finished my engineering degree at Huron University. I went into the engineering field. My first career was at Atreides Instruments in Ottawa, and I was an applications engineer there, largely programming in Visual Basic for DOS for in-process testing of applications. I was there almost two years, upon which time my wife and I had the opportunity to come back to Ashburton, which was our home area. My wife was offered a full time position, and I came back as an Electrical Engineer for Batchawana Papers,

an employee owned pulp and paper plant. I was a junior engineer within the company, and I progressed on in the eight years that I was there. I progressed on to hold positions of intermediate and senior electrical engineer and automation team leader before turning down a promotion to manager of automation and process control to come here and teach at Storbaelt College.

Mr. Blonde indicated that while there were individuals that influenced his choice to become an Engineer, the choice also came about as a result of his interests and successes in high school:

In high school I was able to work from an early age in various industrial establishments. I was making decent money at those jobs. The question became, for me, if I could make good money and enjoy what I was doing, as opposed to just getting through a job, you know, what would that occupation be? I was fairly good with math and physics in high school and I enjoyed those classes, so engineering seemed like a logical choice.

Mr. Blonde feels that it was primarily family members that influenced his decision to pursue a post secondary education:

I think I'd have to say my parent's instilled a philosophy that you had to go to school and get a post secondary education. Education was of value. My mother was a teacher, and she just had a teacher's college certificate at the time when I

was a young boy. And I can remember her working pretty hard to take university courses part time and through summers to get a degree, to increase her credentials. So early on she saw the value of post secondary education. And she knew this was going to become more important in the future. So that came through. The value of post secondary education came from my parents. My father was a life time mill worker and he wanted me to have more, he wanted me to have more flexibility in my career choice, as I went through my working life. My uncle was a steam plant recovery manager and he was always very enthusiastic about the electrical field and always was sticking that idea in my head. And of course my current father-in-law was always preaching engineering and that may have been due to his own professional experiences in his work field. I think he felt stifled in his career because he didn't have those credentials and he had so much to offer, and so he always pushed engineering as a possibility. There was another uncle who, I didn't really have a close relationship growing up, but he was an electrical engineer, and, you know, it sort of provided the possibility in my family that one could do something like this as well.

Mr. Blonde is still in contact with these role models and expressed that he feels that they are quite proud of Mr. Blonde and how he has done in life. Mr. Blonde indicates that these people as well as others served as role models:

My uncle Ralph probably wasn't as big an influence in my decision to join engineering, but I think as I moved into my career he became a mentor or role

model because he's had sort of like or similar experiences, which he could share guidance on. My first boss at Atreides was really good for technical solutions and of course my later boss up at Batchawana Papers, he was also good for technical solutions, mentorship and procedural solutions. In hindsight, one of the instructors at Storbelt was an influence or has served as a role model indirectly, you know. Just his style, Jonathon Smythe, you know.

Mr. Blonde's career path as a Professional Engineer in the Province of Ontario required that he serve as an intern before being allowed to write the licensing exams. The internship is a four year time period after obtaining the necessary degree:

I guess mentorship and sponsorship are built into the engineering profession. You must serve an internship with at least three professional engineers supervising and guiding your work, from all aspects, technical, ethical and legal before you even get permission to write the professional practice examination, which is required for licensure. Three people have to sign off on your work experience, so they have to have had some contact with your work.

Some of these individuals are no longer directly involved in Mr. Blonde's career, but he does maintain contact with them socially:

I'm in contact with all of them. Obviously there are geographic distances and we've moved on to different careers but it's nothing to contact one another, say

on a holiday or more of a social contact now, as opposed to professional. Out of a close working relationship and that sort of, that piece of the education in your career, you know, you maintain contact and closeness to some extent I imagine. My uncle Ralph, I said was a family member, he had similar experience. My previous instructor, he always seemed to do what was right in design, to be true to the design, to uphold proper engineering principals rather than short cuts, and so that always stuck with me as a key attribute that was desirable.

With the decision to pursue a career as an educator, Mr. Blonde refers back to the example of his college professor, and also makes mention of his wife and mother, who both have been teachers. While he states that these two ladies in his life have given him guidance, he feels that they did not influence him in his decision making process:

My instructor, Mr. Smythe I think, in hindsight I guess that was sort of always in the back of my mind. It wasn't really a conscious thought, but I admired what he did. He always worked in the field, and he also shared his knowledge with students, you know. And I guess my mom was a teacher as well, and my wife is a teacher. And there's been various instructors along the way that I thought were good models or role examples. I think my mother and wife were kind of surprised probably by the decision at that point in time to go into teaching. I mean, they've always been there for guidance with respect to teaching or educating, the education system in general. I don't think they were influential in this decision.

For a mentor or role model to be influential to Mr. Blonde, they have to be passionate about their career, have very strong ethics and “a lot of solid experience in the field”. Mr. Blonde states that he has served as a role model at both at Atreides Instruments and Batchawana Papers: “I have served as a mentor, say to junior engineers.”

Mr. Blonde expressed some concerns about establishing a formal mentoring relationship with new incoming teachers, recognizing that most are experienced professionals and that they may feel insulted by being assigned a mentor:

To develop from scratch, like I think, it depends on the teacher, like most instructors hired into a core discipline have a technology or engineering technology background, probably come with a lot of technical experience and are probably good problem solvers to begin with. You would hope. Anyone that’s a good problem solver and passionate about their knowledge, and sharing the knowledge and experience with students will likely embark on a trouble shooting process of how to break down the material on a course outline and deliver it , you know, in a timely and effective manner. And then doing that over successive iterations you can kind of tweak that and figure out what’s working and what’s not. I think a passionate instructor will probably also evaluate their performance on how they’re connecting with their students, and strive for improvement, as instilling passion in the subject matter within the student is an important portion of the process, right. If you can ignite that passion within the material then the students are going to jump in there, I think. If this means seeking out the advice of an experienced faculty member, then they’ll probably do that on their own in a

small college environment. I know that with our faculty, everyone in our group is approachable. You just have to ask them, and they would give you anything that they could. I guess that, in our environment we're lucky that way. I don't know if assigning or putting a formal process in place and saying 'here's your mentor' to an experienced professional that's coming in, say with twenty years experience in their field would work. It would almost be insulting or degrading to them in some respect. It might work to identify people who would act as informal mentors for that transition, so that you know, as you're bringing people in and orientate them to the college system and saying "these people are here for your use, if you will, on your transition into the role as an educator". Of course there is a bit of a transition there. Some of your goals have changed, right. It's not always about efficiency, output, production and optimization. I don't know, for lack of a better word, there's a socialist aspect to it. I mean, you're really there now to try and share your experience and knowledge with your students, and make sure that they're going to benefit from it in the end. You want to leave them in a better state than when they arrived, at some point. It's not like fixing a wheel or fixing a machine, getting it up and running, there's a bit more. I would say there is an emotional intelligence required, that you would not necessarily have in the strict engineering field. So from that respect, having somebody that would, you know, that you could talk to as a known volunteer that's familiar with those types of issues, you could, that might be beneficial.

Professional development sessions and other in house educational training programs are a resource that Mr. Blonde indicates could provide a great deal of the information that might otherwise come from a mentor:

Professional development sessions on college policy and orientations do occur. Unfortunately over here we are a little isolated, and we tend to not read those e-mails. If you go over there and take them, you get a lot of those policy questions answered. And again, somebody's that's been working in the field as a professional, they're going to go. It's an organization. It's a little bit different in its semantics, but you seek out information. I know I have to get my 'i's dotted and my 't's crossed. There's got to be policies and procedures for this, and that. So you're going to find out who holds those keys and who's got that information. If you had a contact here in our building, say for instance, for our faculty, where they could go to, like Reginald was, informal contact, you could just go and ask him a certain subject and he had all that stuff memorized and he'd steer you to the right place. You know, in a lot of respects, Reginald would do that. He was like a wealth of knowledge. Now with his moving on and if you were going to formalize something like that, you'd have to have a person in place where that person would be the faculty contact for policies and procedures and orientation on the 'do's and 'don't's of being in the college environment.

There are also negative role models that Mr. Blonde has indicated that he decided not to emulate. He also says that there are lessons that can be learned from these situations as well.

However, for professional and ethical reasons, he deliberately chose to be vague and brief about these experiences:

Yet having to work with a person like that or under a person like that you can use that as a learning opportunity too, right. I mean you can take away what you don't want to be like and what don't want to practice as well, so. I've had a couple those experiences. A lot of ethical issues, about lining people up for scapegoats or that type of stuff. Saying one thing, doing another, that kind of stuff. When it comes time, when it comes to large budgets, or decent size budgets and other people are involved and people's careers, you know there are situations where some people will play politics above all else to climb over, or climb on top of people to get ahead, and I don't. There's learning to be had in that as well.

CHAPTER FIVE

Analysis and Discussion

Introduction

There is a Samoan saying ‘teu le va’, which loosely translates to ‘take care of the relationship’. The above saying, which emphasizes the importance attached to relationships by the people of these South Pacific islands, resonates with the participants’ responses and the understandings gained from the literature review. One of the key components of mentoring is the capacity to build and sustain relationships (Awaya et al, 2003). My analysis of the data was initially based on this foundation; in effect I was working from the “theoretical propositions” (Yin, 2003, p. 111) of my literature review. The major theme that flowed from my iterative analysis of the data is the critical importance of personal relationships in the educational and career choices made by the participants. Flowing from the unifying theme, there appears to be three major time periods in the participants’ lives when mentoring has the greatest impact. These periods are when the participants are making choices: (a) the choice of post-secondary educational pathways, (b) the choice of initial pre-teaching career, and (c) the personal influences on the transition to teaching. The research also provides insights into the participants’ views, or suggestions, on mentoring and differences between the structured mentoring programs in which the participants have been involved.

The analysis will compare each of the participant’s responses concerning each of the time periods and the commonalities that exist between them. In addition, the analysis will also show where individual interview responses did not correspond to commonalities that may be seen, and offer explanations of these anomalies.

The Choice of Post-Secondary Educational Pathways

In making their choices of post-secondary educational pathways, there were several mentoring relationships that were influential for each of the participants. These relationships involved family members, teachers, colleagues, friends and other significant people in the participant's lives. In this section, these relationships are described and expanded upon.

Familial Influence on Post-Secondary Educational Choice

Three of the four participants, Mr. Blue, Mr. Green, and Mr. Blonde indicated that individuals in their families were role models who influenced their choice of study for post-secondary education. In Mr. Green's and Mr. Blonde's cases, there was also the realization that education was a means to escape from the limited career options that their parents had.

Mr. Blue: I was fortunate enough going through my own education, from elementary through high school that my parents were highly involved in my education ... making sure I made the right course selections in high school, so that I had options open later on for post-secondary.

Mr. Green: Well, my brother, who is two years older than I, he was enrolled in the Kinesiology program. He is currently a high school teacher. So I think I looked up to him and followed his lead. I was an immigrant and I came over to Canada at a young age, and everyone that I knew and my parents knew, were labourers. But I knew at a very young age that that's exactly what I didn't want to be, a labourer. So I tried to continue with my education so that I could do something different.

Mr. Blonde: I think I'd have to say my parent's instilled a philosophy that you had to go to school and get a post-secondary education ... So early on [my mother] saw the value of post-secondary education ... and she knew this was going to become more important in the future. The value of post-secondary education came from my parents. My father was a life time mill worker and he wanted me to have more, he wanted me to have more flexibility in my career choice, as I went through my working life. There was another uncle who ... was an electrical engineer ... provided the possibility in my family that one could do something like this.

Only one participant, Mr. Black, makes no mention of family members being a role model or influential in his decision to pursue post-secondary education. He does however indicate other individuals who were role models as he made his decision to go to university.

The data indicates that role models and parental influence play a major role in the selection of post-secondary education options. These influences can range from active parental involvement in their child's education and subject selection, to instilling a belief in the capacity of education to provide increased opportunities in life, to following the examples of older siblings. That families played such a crucial role in the educational choice of three of the four participants is a finding that is consistent with the literature. The Harvard Family Research Project (2006, p. 1) reported that "Throughout elementary school, children begin to integrate knowledge from their interactions with teachers, peers, and families in order to construct identities based on their understanding of what they are good at and capable of doing."

Both Mr. Blonde and Mr. Blue stressed the importance of their parents' involvement in their early education. Parental involvement was in two clear areas. For Mr. Blonde's parents, there was a clear parental belief in the capacity for education to open employment opportunities later in life. For Mr. Blue, there was a clear parental expectation regarding the selection of the "right course selections in high school." The power of parental involvement in shaping attitudes to education is well documented in the literature. Gorman (1998, p. 10) indicates that "parent's attitudes toward education have a significant effect on their children's educational aspirations." Bregman and Killen (1999, p. 267) emphasize the role that parents have with educational choices: adolescents and young adults do not conceptualize decisions related to vocational development strictly in terms of personal choice, outside parental jurisdiction. The Harvard Research Project (2006, p. 3) found that "family involvement is linked broadly with school achievement across different socioeconomic and ethnic groups." In a subsequent report the Harvard Research Project (2007, p. 1) stated that "family involvement in education remains a powerful predictor of various adolescent outcomes. Perhaps most importantly, family involvement relates to higher rates of college enrolment." Similarly, Patrikakou (2004) found that parents "who hold high expectations for their teens, communicate them clearly and encourage their adolescents to work hard in order to attain them, can make a difference in students' success."

The research also points to success in specific subjects being influenced by parental expectations. For the participants, a strong background in mathematics is a prerequisite to their educational paths in science or engineering. Entwisle and Alexander (1990, p. 469) emphasize that "parents' expectations are a potent influence on children's math skills."

Conversely, in Belzer's (2004, p. 53) research of African-American women returning to school, the participants indicated "they had lacked support that might have aided them in their earlier educational efforts ... parents ... often left them on their own to make decisions about attending school and achieving success and without guidance and support when the participants experienced difficulty."

For three of the participants involved, the role of family mentoring and support is indicated as a major factor in the participants' post-secondary educational choices. The importance of familial mentoring is consistent with the findings of previous research. As indicated by Jodl, Michael, Malanchuk, Eccles and Sameroff (2001, p. 1248) "parents' expectations for their children's eventual educational attainment have been related to children's own educational expectations and self-concepts, as well as to their actual academic performance." The next major mentoring influence to be considered is the role of the participant's secondary school teachers.

Teacher Influence on Post-Secondary Educational Choice

Two of the four participants, Mr. Blue and Mr. Green, indicate that their initial post-secondary education was influenced by teachers that they had in high school. Mr. Blue was considering two possible career options, becoming a teacher and becoming an industrial chemist:

My math teacher in high school was the main person I talked with, as well as my science teacher ... between those two; I bounced around the idea of teaching versus industry, and came to the decision to go the industrial route.

Mr. Green indicated that his primary interest was in Kinesiology and he was considering a career associated with chiropractic medicine. He also acknowledges the influences of teachers in his choice to pursue a career as a teacher:

There were a couple of teachers who I had in high school, who I admired greatly, Phys Ed teachers, and so I guess in a way I wanted to be similar to them, in what they did. One in particular ... stood about five foot nothing, but very, very well respected, in the high school that he taught in.

It has been mentioned earlier that Ferguson (1991, p. 490) found that “beyond school finance reform, what evidence here suggests most strongly is that teacher quality matters and should be a major focus of efforts to upgrade the quality of schooling. Skilled teachers are the most critical of all school inputs.” Therefore, if a student is successful in a subject area, and develops an interest in continuing studies, the influence of teachers, either as individuals, or corporately, must be considered. Mr. Blonde, while not identifying any specific teacher, did indicate that his decision to pursue a career in engineering was strongly influenced by his success in high school subjects:

I was fairly good with math and physics in high school and I enjoyed those classes, so engineering seemed like a logical choice.

The literature also indicated that teachers may have an influence on the post-secondary educational choices that are made by students. Dick and Rallis (1991, p. 291) note that for

students pursuing careers in engineering or science, teachers are perceived as being influential “much more often than (for) students choosing other careers.”

Although the research project makes no attempt to investigate any gender effect, there may be issues associated with gender. Paa and McWirther (2000, p. 40) in a study investigating influences on career expectations for high school students state “parents, friends, and teachers of the same sex were perceived as most influential.”

The influence of teachers on post-secondary educational choice was not simply limited to the time period when the participants were in, or just leaving, high school. Mr. Black and Mr. Blue both indicated that as they were considering starting or continuing post-secondary education, teachers that they were familiar with had an effect on their decisions. A decision was made to include these effects in a following section as opposed to treating these mentors or role models as teachers based on the fact that the teachers involved were not the participants’ teachers.

The participants’ responses and the literature both support the importance of teachers in influencing post-secondary educational choices. The following section explores the influence that colleagues and friends have on post secondary educational choices.

Colleagues and Friends Influence on Post-Secondary Educational Choice

The influence of friends on post-secondary education choices was mentioned by three of the participants, Mr. Black, Mr. Blue and Mr. Green.

For Mr. Black, one friend, a teacher, helped him to decide to go to university as part of a career change strategy. From this friendship, Mr. Black developed an understanding of the different aspects of teaching and became more knowledgeable about the teaching profession:

I enjoyed his companionship and saw that he could enjoy teaching and yet enjoy the things that I always enjoyed as a youth.

For Mr. Blue, the decision to return to university to become a teacher was made after an injury. However, he did seek out advice and received mentoring from friends, who were teachers while making his career change. The influence of teachers as friends will be explored in the section dealing with a transition to teaching.

Mr. Green indicated that his decision to continue into the teaching program after completing a Physical Education program was partially a result of the influence of friends:

I was however convinced by colleagues, friends of mine, to go into the teaching program, to become a teacher. So I thought I'd go into teaching primarily because I knew other people who were going into the profession.

The mentoring that comes from friends in making, and being successful with, post-secondary education choices is clearly a factor that must be considered. Castles (2004, p. 169) indicates "There was no evidence to show that support from the family was more important than support from friends or work colleagues, and none to indicate any one type of support was more useful than another." These three participants, Mr. Black, Mr. Blue and Mr. Green indicate quite strongly that, for them, friends either provided guidance, assistance or role modeling as they started, or continued, in their post-secondary educational journeys. In contrast, the reviewed

literature did not strongly indicate that colleagues and friends had an influence on post-secondary career choices.

An unexpected finding that came from the participants' responses was how often teachers, and not necessarily the participants' teachers, had influences on the participants' educational choices. The influence could occur years after the participant had left high school. While the careers that the participants chose were in education, an interesting topic for further research would be to investigate how influential teachers are on educational and career choices of non-students. Teacher influence on non-students will be discussed further in the following sections.

The Choice of Initial Pre-Teaching Career

As the participants were making their choices of initial pre-teaching careers, role models and mentor relationships were once more influential. In particular, family members, teachers, friends and other people in the participant's lives are indicated as influential. The following section describes and explores these relationships.

Familial Influence on Initial Pre-Teaching Career Choice

The influence of family on the choice of the participants' initial pre-teaching career was not as pronounced as that of the influence on post-secondary educational choices. While Mr. Black, Mr. Green and Mr. Blonde indicate that family had an influence, for two of these participants, there is a component of negative role modeling. There must also be considered both the interconnected aspects of post-secondary education and initial pre-teaching career. For one participant, Mr. Black the initial pre-teaching career occurred before any post-secondary education. For Mr. Green there were several jobs he had while going to school and the initial

pre-teaching career indicated was while waiting for a teaching position. Only Mr. Blue and Mr. Blonde indicated that they achieved post-secondary educations which lead directly to their initial pre-teaching career.

For Mr. Black, his initial career was with the Canadian National Railway (CNR), and family members were significant role models in the decision to pursue this occupation.

Specifically, Mr. Black mentions his father and brother-in-law:

My father worked on the railroad as a trainman and conductor. So, I spent a great deal of time just working with the CNR. It fascinated me and I enjoyed it.

Mr. Green's father-in-law was an influential figure in his decision to work in a grain elevator. For Mr. Green, working at the grain elevator was a transition career that he entered into as he was actively looking for a teaching position:

My father-in-law was actually a foreman at one of the grain elevators, and someone I respected and admired, and he coaxed me into that profession. And so, I guess that was my first real, full time job, if you will. And so that's how I got into the grain handling business.

Mr. Blonde credits his father with providing him with encouragement to pursue a professional career, and indicates that he has an uncle who he considers to be a role model. This uncle went through school and became an electrical engineer, and ultimately Mr. Blonde pursued a similar career path:

My father was a life time mill worker and he wanted me to have more ... flexibility in my career choice... my current father-in-law was always preaching engineering and ... uncle who, I didn't really have a close relationship growing up, but he was an electrical engineer, and, you know, it sort of provided the possibility in my family that one could do something like this as well ... as I moved into my career he became a mentor or role model because he's had sort of like or similar experiences, which he could share guidance on.

The literature reviewed supports the finding that family influences the choice of initial career. As indicated by Borg (1996, p. 15) "parental influence on any youth's choice of career, whether expressed consciously or unconsciously, is quite strong." Pearson and Bieschke (2001, p. 307) found "family relationships influenced their (participants) career development." Specifically for math and science, Ferry, Fouad and Smith (2000) indicate that encouragement from parents had a positive influence on learning experiences which in turn influences career selection. While familial influence on initial career choice is probably the most important, other influences must be considered. The next section will consider the influence of teachers on initial career choice.

Teacher Influence on Initial Pre-Teaching Career Choice

Only one participant, Mr. Blue gives a clear indication of being influenced in the selection of his initial pre-teaching career by his high school teachers. However, teacher

influence on the participants' teaching careers and decisions to return to school were much more pronounced.

Mr. Black makes no reference to teacher's influence in his decision to pursue a career with the CNR. However, as previously mentioned, his decision to pursue a career as a teacher was directly influenced by a teacher role model. In addition, various other educators impacted on his educational and career path. These influences for Mr. Black will be explored in the next section.

Mr. Blue had decided to initially pursue a career as an industrial chemist. As part of his decision making process, he sought out the advice of his high school teachers:

I chose industry and the biggest reason was the money was a whole lot better. So I made the decision to go the industrial route rather than the educator route. My math teacher in high school was the main person I talked with, as well as my science teacher, who did a variety of things.

Although Mr. Green indicated that his initial career was working in a grain elevator, in essence it was a transition as he was attempting to achieve a full time teaching position. The influence of teachers in pursuing the career in the grain elevator was not mentioned, but Mr. Green did note the influence of teachers in his desire to himself become a teacher. These influences for Mr. Green will be explored in the next section, dealing with Teacher Influence on the Transition to Teaching, as they are more relevant to Mr. Green's career in teaching than to his initial career in the grain industry.

Although he did not acknowledge any secondary school teacher, Mr. Blonde did indicate that success in specific subjects fuelled his desire to pursue a career in engineering. Mr. Blonde recalls a specific instructor at college that influenced his desire to continue on to become an engineer:

In hindsight, one of the instructors at Storbælt was an influence or has served as a role model indirectly, you know. Just his style, Jonathon Smythe, you know.

The literature supports that teachers influence initial career choices and this effect seems to be more pronounced with students choosing careers in engineering or science. In a survey of perceived influences, Dick and Rallis (1991, p. 291) found that the “survey findings indicate that both men and women who choose engineering or science careers have had some specific encouragement to do so. They (the survey participants) noted the influence of parents more often and teachers much more often than students choosing other careers.” In the context of educational choices leading to eventual careers, Borg (1996, p. 8) notes that teachers are also influential and states “perceived support from parents and teachers is found to be an important predictor of children’s option choice at school.” The next section will explore the effect that colleagues and friends have on the choice of initial career for the participants.

Colleagues and Friends Influence on Initial Pre-Teaching Career Choice

None of the research participants indicated that friends played a significant role in the selection of their initial pre-teaching career choice. This is fairly consistent with the literature reviewed, although Borg (1996) did find that school friends assisted some students with

vocational planning. However, having entered their initial pre-teaching careers, both Mr. Blue and Mr. Blonde described individuals who served as role models or mentors.

For Mr. Blue, the supervisor at his first place of employment served as a mentor, providing guidance and support as Mr. Blue moved through his initial time in his career. Mr. Blue found this individual particularly helpful when his job was eliminated and he had to search for another position:

He was a supervisor ... he was basically responsible for my decision to move out of the mill...to look elsewhere and to get into management ... I took his advice and within a few weeks had a choice of three different jobs to go to.

Mr. Blonde went through an internship as part of the requirement for being licensed as a professional engineer. A significant component of internship involves being supervised by licensed professional engineers. The internship is a structured four year period when the licensed professional engineers are required to “provide guidance, encouragement and support to the applicant during the internship period” (Professional Engineers Ontario, 2002, p. 6). In addition, there is a requirement to “provide experience opportunities, act as referees in the licensing process, or serve as mentors where required” (Professional Engineers Ontario, 2002, p. 4):

Mentorship and sponsorship are built into the engineering profession. You must serve an internship with at least three professional engineers supervising and guiding your work, from all aspects, technical, ethical and legal before you even

get permission to write the professional practice examination, which is required for licensure.

In addition, Mr. Blonde makes specific mention of two individuals who mentored him in his workplace. They were both 'bosses' to Mr. Blonde and he feels that he gained insight from their mentorship.

My first boss at Atreides was really good for technical solutions and of course my later boss up at Batchawana Papers, he was also good for technical solutions, mentorship and procedural solutions.

While two of the participants indicated that colleagues had an impact on their initial career path, neither indicated that the choice of this initial career was influenced by colleagues or friends. This is consistent with the literature reviewed.

Similar to post-secondary educational choices, the major influences for initial career choice are familial and teacher. However, once the decision has been made, colleagues become an important factor in the continued career path.

Each of these participants moved beyond their initial careers and decided to pursue a career in teaching. The next section will explore both the influences that lead to this decision and the various influences that occurred during the transition period.

The Personal Influences on the Transition to Teaching

In making a decision to pursue a career in teaching, the participants indicated that there were several personal mentoring relationships that were influential for each of the participants. These relationships involve family members, teachers, colleagues, friends and other people in the participant's lives. In the following sections, these relationships are described and expanded upon. For two of the participants, Mr. Black and Mr. Green, the decision to pursue a post-secondary education was directly related to a desire to become a teacher. Therefore there is some overlap between the influences indicated in these sections.

Familial Influence on the Transition to Teaching

For three of the four participants, there is a reference to a career in teaching being influenced in some fashion by family. Mr. Blue indicates that the as a result of parental influence, he had the educational background necessary to change careers and become a teacher:

My parents were highly involved in my education ... making sure I made the right course selections in high school, so that I had options open later on for post secondary. It gave me that opportunity that when I did my undergrad, and then worked, and had to make a career change, I already had the background.

Mr. Green acknowledges that the influence of his older brother who had become a teacher was an influence on his desire to become a teacher:

Well, my brother, who is two years older than I ... (he) is currently a high school teacher. So I think I looked up to him and followed his lead.

Mr. Blonde indicates that with both his wife and mother being teachers provided him with examples and guidance. While acknowledging this background influence, he does not feel that they directly influenced his decision to become a college professor:

My mom was a teacher as well, and my wife is a teacher. I mean, they've always been there for guidance with respect to teaching or educating, the education system in general. I don't think they were influential in this decision.

The literature reviewed did not indicate that families influence the transition to teaching beyond the general influence that familial influence has on educational and career choices. The following section will explore the role that teachers have as the participants transitioned into their teaching occupations.

Teacher Influence on the Transition to Teaching

There are several responses made by the participants that involve teachers and their influence as the participants pursued a career in teaching. The nature of the relationship between the participant and the teacher dictates in which section of this analysis the relationship is discussed. If the participant was a student of the teacher, then they will be considered in this section. However, if the relationship with the teacher was of a social or workplace nature, then this relationship will be discussed in the section dealing with the influence of friends.

The participant that discussed the influence of teachers on his education and career path the most was Mr. Black. As previously discussed, Mr. Black's decision to pursue a teaching career was influenced by a role model teacher, who subsequently served as Mr. Black's associate teacher. Mr. Black indicates that several of his university professors were additional role models and mentors to him:

Dr. Zachary, who is now retired from Huron University had a big mentorship (role) with me, and another...was Dr. Tong, who is also retired. And the third one who had the most influence was Dr. Blackmore. And we spent a lot of time together, and I thought the world of him. And I thought the world of how he taught, how he dealt with people, his fairness, and his standards. He had high standards, but he was always fair.

One manner in which these mentors seem to have connected with Mr. Black was through various shared athletic pursuits. Mr. Black indicates that his relationship with Dr. Blackmore developed to a large extent as a result of their interest in squash, and that seeing Dr Blackmore in different situations helped formulate Mr. Black's opinion:

He taught me how to play squash...it wasn't about the winning, it was about the attitude. He was very competitive. I watched him in a tournament, he got hit with a racket, split his lip wide open, lost a tooth. He lost, but he never used it as an excuse. And that is something he didn't allow. Whenever I had him as a teacher, he would say this is how you would do it, and then he would say these

are the standards. And he was firm, but he was always fair. And he never played favourites.

When Dr. Blackmore had made an unsuccessful attempt to achieve a promotion, Mr. Black was able to observe him and his reactions. Mr. Black indicates that his role model's professionalism was one of the attributes that he admired:

Well I think when you have a mentor, it's a matter of knowing that you are going to do what is best and knowing that it will work out. And that's what a mentor does to you. I know he applied for a promotion ... (and) ... didn't get it ... it was a difficult thing, but you would never know it was a difficult thing. It was his whole mannerism, and the way he handled it, so professional and he continued on doing his job, and he continued on supporting the society. And he never let the little things get in the way of what he's doing. I think that's really important.

There were two other university professors that Mr. Black indicates served as role models or mentors for him. Mr. Black's description of these relationships indicates the sense of connection that Mr. Black had with these two individuals:

Dr. Zachary was caring. He would search me out, see how I was doing, and if I was down and out. As a student, sometimes you do things, and you wish you would have done better. He was always very, very supportive, and caring.

Dr. Tong helped teach my wife how to play (badminton). They were very good friends. His wife was very good friends with my wife, and Dr. Tong, is just a gentle man, and I just enjoyed him. And so I got to know his children, and know him, and we played badminton, or I attempted to play, and he, he thoroughly thrashed me now and then, or whenever we play.

When he was still in high school, Mr. Blue had been considering a career “teaching chemistry in the high school system,” and refers back to his math teacher and his science teacher as being influential in his career path. He says that with these teachers he “bounced around the idea of teaching versus industry, and came to the decision to go the industrial route.”

Mr. Green clearly indicates that he had a desire to be like some of the teachers he had in high school:

There were a couple of teachers who I had in high school, who I admired greatly, Phys Ed teachers, and so I guess in a way I wanted to be similar to them, in what they did.

For Mr. Blonde, the instructor that he indicates most influenced him was at Storbaelt College, and he found this instructor’s ability to maintain an involvement in the industry while continuing to teach to be important:

My instructor, Mr. Smythe I think, in hindsight I guess that was sort of always in the back of my mind, it wasn’t really a conscious thought, but I admired what he

did. He always worked in the field, and he also shared his knowledge with students.

The influence of faculty on the decision to pursue further studies in education was noted by Bettinger and Long (2005). The literature also indicates that teachers influence career choices in regards to engineering and science careers (Dick & Rallis, 1991). The final section will consider the influence that colleagues and friends have as the participants become educators.

Colleagues and Friends Influence on the Transition to Teaching

The following section will consider the influence that friends and colleagues had on the participants as they transitioned into a teaching career. Although the influence of non-teaching friends was not indicated as an influential factor in either the research or the literature, the influence of friends that were also teachers was indicated by three of the participants. In addition, three of the participants indicated that colleagues were influential during this transitional period.

For Mr. Black, his decision to pursue a post-secondary education and his becoming a teacher are closely related. As mentioned earlier, his decision was to a large extent influenced by a friend who was a teacher:

He was a math/physics teacher in Hastings ... We went canoeing and we did things together ... I enjoyed his companionship and saw that he could enjoy teaching and yet enjoy the things that I always enjoyed as a youth.

Following his university education, there were a number of people who served as mentors to Mr. Black. The influence that these people had and the respect that he has for them came through strongly in his interview. During his 28 years at the college, he has benefited from the influence of these mentors:

I think I was very fortunate. I don't think I could have had more mentoring than what I had ... (in) a group of people that were very talented and had lots to offer. And I liked them as people, so it made it very easy.

For Mr. Blue, the decision to return to university to become a teacher was made after an injury. However, he did seek out advice and received mentoring from friends that were teachers in this career change.

I talked to them because I wasn't sure what was involved. They put me in touch with people at Huron University and assisted with the application process. They provided me with information of the local school board and opportunities that were coming up, specifically retirements that were coming up. The chemistry teacher ended up being my mentor through my faculty of education training and I student taught for him in the high school. Once I started teaching on the supply list, I was in contact with him. If I had any questions on classroom management I went to Michael and talked things over with him. So he continued through that first year that I was in the high school as my mentor.

When Mr. Blue started teaching in the college system, he feels that there was no assistance or mentoring in any way at the college he was initially employed at. Mr. Blue ended up contacting people he knew at other colleges and sought out their assistance:

When I started teaching at the college system in Syracuse, I had absolutely no role modeling, no mentoring to start with ... formally or informally offered. I ended up seeking it out, because, I mean I had nothing to start with. I sought out a couple of other people that I knew that were teaching in Southern Ontario. So yes, if there was something local for mentoring it would have been fine with us.

Initially Mr. Green worked at a satellite location of the college, but after a time period he transferred to the main campus. In the satellite location, Mr. Green had the benefit of working with two individuals that assisted and mentored him:

My first year of teaching in the satellite office there were two people there who had been there for a while, older gentlemen, and they definitely served as mentors. I'd go to them for all my questions and they were very happy to oblige. So I think I needed a mentor then, and I think they served as mentors.

When he transferred to the main campus of the college, Mr. Green indicates that he felt isolated. His response indicates that at this time, having a mentor would have been beneficial.

I found myself on the main campus ... and I felt very alienated. I was an employee who had been with the organization for a number of years and yet coming on to the main campus I felt like a brand new employee. And there just wasn't any person to connect with, learn from, and ask questions of. So it was a tough year, primarily because I had left all the people I had worked with at the satellite office. So I think at that time I could have used someone. I remember struggling the first month just trying to find a place to sit down and have my lunch.

In light of the statistics indicated by Curran and Goldrick (2002) which shows that in some areas of the United States over 40% of teachers leave the profession in the first five years, the necessity of support from experienced colleagues for new teachers must be considered. There are a significant number of articles which emphasize that some form of induction program, which almost universally maintains a mentoring role as a central tenet, should be in place for new teachers (Browne, 2001; Curran & Goldrick, 2002; Fulton, Yoon, & Lee, 2005; Hargreaves & Fullan, 2000; Ingersoll & Kralik, 2004; Smith, 2007; Smith & Ingersoll, 2004).

In this chapter, a significant impact of role models/mentors on the education and career paths of the participants is indicated. The literature reviewed supports these findings. An interesting component of the findings is the influence that subject specific teachers played in career selection. This appears to support the notion of gender related positive impacts reported by Bettinger and Long (2005).

CHAPTER SIX

Conclusion and Implications

In this final chapter I discuss the findings in relation to the general research questions, the main themes that flowed from the research will be summarized, and the implications of this study as it applies to the influence of role models/mentors on the career path of the participant college professors. Finally, I present a conclusion based on my experiences during this research process.

General Questions revisited

1. How did role models/mentors impact on initial career choice?

For all of the participants, role models/mentors influenced the choice of their initial career. In particular at this stage of their career paths, the participants indicated that parents and family were pivotal in their decisions.

These findings are consistent with the literature reviewed in showing that family members, in particular parents are a strong influence in initial career choice. While a certain amount of the decision to pursue a specific career can be attributed to a role model/mentor effect, an area for further study might consider the influence of family role models/mentors as opposed to simple access to these jobs through familial connections.

2. How did role models/mentors impact on initial career success?

Two of the participants, Mr. Blue and Mr. Blonde indicated that in their initial career, role models/mentors contributed directly to their success. The remaining two participants, Mr. Black and Mr. Green worked in industries where family members were also employed.

Although specifics were not mentioned by these two, it is reasonable to assume that family members, serving as role models/mentors would have a positive impact on their success. So, while acknowledging the influence of role models/mentors, it must also be indicated that familial ties can be a contributing factor to initial career success.

The literature reviewed indicates that the presence of a mentor is a factor in being successful in a career.

3. How did role models/mentors impact on the decision to pursue a career in education?

All four of the participants indicated that role models/mentors influenced their decisions to pursue a career in education. Of the literature reviewed, there was minimal information regarding the influence of teachers on the decision of college professors to pursue this career. Thus a finding of this research is that teachers can, and do, have a major impact on career choice. A surprising finding is that non-subject teachers were influential for the participants as they made their decisions to become educators.

4. How did role models/mentors impact on educational career transition and success?

Once the participants had decided to pursue a career in education, three of the four, Mr. Black, Mr. Blue and Mr. Green indicate that they benefited from having role models/mentors who helped with this transition. Mr. Blonde gave no indication that the transition or his success in his new career, were influenced by role models/mentors.

There is a substantial amount of research that indicates that having a mentor as a person starts teaching can be beneficial. Part of the requirement for elementary and secondary teachers

to become licensed in Ontario is that they perform a teaching practicum where they are supervised and mentored by an experienced teacher.

This study has indicated that for all participants, role models/mentors have had influence at various times in their lives, either in selection of educational pathways, in the selection of and during an initial pre-teaching career, or during a transition to teaching. The selections of educational pathways were heavily influenced by family, as were the choices surrounding initial careers. However, as the participants pursued teacher education and teaching careers, the influence of family decreased and teachers and colleagues became more influential.

Implications and Recommendations

The literature reviewed did not provide information regarding second career choice decisions. However, based on my research, it appears that the influence of family decreased as the participants moved through along their career path. As the influence of family decreased, the influence of colleagues and non-family members increased. An unexpected finding from my study is that the participants sought the opinions of educators before moving into the education field. This finding generates several other questions. One area of further study that could be investigated is the role that teachers have in influencing second career choices. Teachers are ubiquitous, and are generally perceived as being both approachable and knowledgeable. So were the teachers approached because they were in the occupation that the participants were interested in, or were they approached because they are seen as gatekeepers of knowledge? This is a question worthy of further study. As the study shows a positive impact from the presence of role models/mentors in the career path of the participants, further study may be warranted to see if the same conclusion may be drawn about the general population of faculty.

An implication of this is the potential need to establish a system of mentors for faculty. Based on my research, I would recommend that the colleges consider implementing a mentoring program with the aim of assisting neophyte faculty members in establishing themselves in their new positions. Specifically, as new faculty members are hired, they could be teamed with more experienced mentor faculty for their induction period. Given the highly personal nature of the mentoring relationship, such involvement should be voluntary. The benefits of such a program are not only for the neophyte; as mentoring offers the mentor many of the salient features of effective professional learning (Garet, Porter, Desimone, Birman, & Yoon, 2001). Actions such as these may have the effect of increasing new teacher retention, increasing student retention and improving the neophyte teacher's skill set. In the college sector, a mentorship program would have implications for workload and teaching assignments. A suggested further study should include a pilot project involving a mentorship program.

References

- Allen, T. D., & Eby, L. T. (2004). Factors related to mentor reports of mentoring functions provided: Gender and relational characteristics. *Sex Roles* , 50 (1/2), 129-139.
- Awaya, A., McEwan, H., Heyler, D., Linsky, S., Lum, D., & Wakukawa, P. (2003). Mentoring as a journey. *Teaching and Teacher Education* , 19 (1), 45-56.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman and Company.
- Belzer, A. (2004). "It's not like normal school": The role of prior learning contexts in adult learning. *Adult Education Quarterly* , 55 (1), 41-59.
- Bettinger, E. P., & Long, B. T. (2005). Do faculty serve as role models? The impact of instructor gender on female students. *American Economic Review* , 95 (2), 152-157.
- Bleeker, M. M., & Jacobs, J. E. (2004). Achievement in math and science: Do mothers' beliefs matter 12 years later? *Journal of Educational Psychology* , 96 (1), 97-109.
- Borg, R. (1996). Factors determining career choice. *European Education* , 28 (2), 6-20.
- Bregman, G., & Killen, M. (1999). Adolescents' and young adults' reasoning about career choice and the role of parental influence. *Journal of Research on Adolescence* , 9 (3), 253-275.
- Browne, L. (2001). *Mentoring tradition firmly established in Ontario's other professions*. Retrieved February 1, 2008, from Professionally Speaking:
http://www.oct.ca/publications/professionally_speaking/june_2001/story2.asp
- Castles, J. (2004). Persistence and the adult learner. *Active Learning in Higher Education* , 5 (2), 166-179.
- Colleges Ontario. (2008). *Ontario's Colleges: An Overview*. Retrieved February 7, 2008, from Colleges Ontario, The Voice of Ontario Colleges:

[http://www.collegesontario.org/Client/CollegesOntario/Colleges_Ontario_LP4W_LND_WebStation.nsf/resources/FACT%20SHEETS%201-2/\\$file/CO_FACTSHEET_01.pdf](http://www.collegesontario.org/Client/CollegesOntario/Colleges_Ontario_LP4W_LND_WebStation.nsf/resources/FACT%20SHEETS%201-2/$file/CO_FACTSHEET_01.pdf)

- Creswell, J. W. (2005). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (2nd ed.). Upper Saddle River, New Jersey: Pearson Education.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, California: Sage Publications.
- Curran, B., & Goldrick, L. (2002). *Mentoring and supporting new teachers*. Issue Brief, National Governors' Association, Center for Best Practices, Washington DC.
- Dick, T. P., & Rallis, S. F. (1991). Factors and influences on high school students' career choices. *Journal for Research in Mathematics Education* , 22 (4), 281-292.
- Entwisle, D. R., & Alexander, K. L. (1990). Beginning school math competence: Minority and majority comparisons. *Child Development* , 61 (2), 454-471.
- Ferguson, R. F. (1991). Paying for public education: New evidence of how and why money matters. *Harvard Journal on Legislation* (28), 465-498.
- Ferry, T. R., Fouad, N. A., & Smith, P. L. (2000). The role of family context in a social cognitive model for career-related choice behavior: A math and science perspective. *Journal of Vocational Behavior* , 57, 348-364.
- Francis, K. C., & Kelly, R. J. (1990). Environmental fit and the success or failure of high-risk college students. *Educational Policy* , 4 (3), 233-243.
- Fulton, K., Yoon, I., & Lee, C. (2005). *Induction into learning communities*. National Commission on Teaching and America's Future, Washington DC.

- Garet, M.S., Porter, A.C, Desimone, L., Birman, B.F., & Yoon, K.S. (2001). What makes professional learning effective? Results from a national sample of teachers. *American Educational Journal*, 38 (4), 915-945.
- Gorman, T. J. (1998). Social class and parental attitudes toward education. *Journal of Contemporary Ethnography* , 27 (1), 10-44.
- Hargreaves, A., & Fullan, M. (2000). Mentoring in the new millenium. *Theory in Practice* , 39 (1), 50-56.
- Harris, S. M., & Halpin, G. (2002). Development and validation of the factors influencing pursuit of higher education questionnaire. *Educational and Psychological Measurement* , 62 (1), 79-96.
- Harvard Family Research Project. (2006). *Family involvement in elementary school children's education*. Retrieved February 7, 2008, from <http://www.gse.harvard.edu/hfrp/content/projects/fine/resources/research/elementary.pdf>
- Harvard Family Research Project. (2007). *Family involvement in middle and high school students' education*. Retrieved February 7, 2008, from <http://www.gse.harvard.edu/hfrp/content/projects/fine/resources/research/adolescencet.pdf>
- Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review* , 26 (2), 264-288.
- Ingersoll, R. M., & Kralik, J. M. (2004). The impact of mentoring on teacher retention: What the research says. *ECS Research Review: Teaching Quality* , 1-25.
- Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation* (3rd ed.). San Diego, California: Educational and Industrial Testing Services.

- Jodl, K. M., Michael, A., Malanchuk, O., Eccles, J. S., & Sameroff, A. (2001). Parents' roles in shaping early adolescents' occupational aspirations. *Child Development*, 72 (4), 1247-1265.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, California: Sage Publications.
- Lockwood, P. (2006). "Someone like me can be successful": Do college students need same-gender role models? *Psychology of Women Quarterly*, 30, 36-46.
- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology*, 73 (1), 91-103.
- McMillan, J. H. (2004). *Educational Research: Fundamentals for the consumer* (4th ed.). Boston, Massachusetts: Pearson Education.
- Paa, H. K., & McWhirter, E. H. (2000). Perceived influences on high school students' current career expectations. *The Career Development Quarterly*, 49 (1), 29-44.
- Patrikakou, E. N. (2004). *Adolescence: Are parents relevant to students' high school achievement and post-secondary attainment?* Retrieved February 17, 2008, from <http://www.gse.harvard.edu/hfrp/projects/fine/resources/digest/adolescence.html>
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (5th ed.). Thousand Oaks, California: Sage Publications.
- Pearson, S. M., & Bieschke, K. J. (2001). Succeeding against the odds: An examination of familial influence on the career development of professional African American women. *Journal of Counseling Psychology*, 48 (3), 301-309.
- Professional Engineers Ontario. (2002). *Guide to the Required Experience for Licensing as a Professional Engineer in Ontario*. Retrieved May 21, 2008, from Association of

Professional Engineers of Ontario:

<http://www.peo.on.ca/registration/RequiredExpForLicensing.pdf>

Ragins, B. R. (1989). Barriers to mentoring: The female manager's dilemma. *Human Relations* , 42 (1), 1-22.

Sanders, T. (2004). No time to waste: The vital role of college and university leaders in improving science and mathematics education. *International Conference on Teacher Preparation and Institutions of Higher Education: Mathematics and Science Content Knowledge*. Washington D.C.

Smith, T. M. (2007). How do state-level induction and standards-based reform policies affect induction experiences and turnover among new teachers? *American Journal of Education* , 113, 273-309.

Smith, T. M., & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal* , 41 (3), 681-714.

The Law Society of Upper Canada. (n.d.(a)). *Articling Program: What you need to know*.

Retrieved May 21, 2008, from

<http://rc.lsuc.on.ca/pdf/licensingprocesslawyer/articling/ar45memWhatYouNeedToKnow.pdf>

The Law Society of Upper Canada. (n.d.(b)). *Sample education plan: Large firm*. Retrieved May 21, 2008, from

<http://rc.lsuc.on.ca/pdf/licensingprocesslawyer/articling/ar36memEduPlanLarge.pdf>

Yin, R. K. (2003). *Case Study Research* (3rd ed.). Thousand Oaks, California: Sage Publications.

APPENDICES

APPENDIX A: Interview Questions

APPENDIX B: Letter to Request Permission from College

APPENDIX C: College Consent Form for Study

APPENDIX D: Cover Letter to Participant

APPENDIX E: Participant Consent Form for Study

APPENDIX F: Informed Consent Checklist

APPENDIX G: Ethics Certificate of Completion

APPENDIX H: Lakehead University Ethics Clearance Letter

*APPENDIX A**Interview Questions*

- 1) What was your initial career choice?
- 2) How did you come to that choice?
- 3) As you were growing up, were there any individuals that influenced your choice of this career?
- 4) If so, can you describe how this influence occurred?
- 5) Do you still communicate with these influential individuals, and if so what is the nature of your relationship?
- 6) As you started and moved through your initial career, were there any individuals that served as role models or mentors to you?
- 7) If so, how did they accomplish this?
- 8) How did this impact on you, and what was your reaction?
- 9) Do you still have contact with these role models or mentors from your initial career, and what is the nature of the contact?
- 10) At some point, you made a decision to pursue a career as an educator. Were there any role models or mentors who contributed to this decision?
- 11) If so, how did they accomplish this?
- 12) As you transitioned into the educator role, were there any mentor or role model relationships that you feel assisted with this transition?
- 13) Do you still have contact with these role models or mentors from this transitional period, and what is the nature of the contact?

- 14) In your opinion, what personal characteristics made your mentors effective or influential to you?
- 15) In any of the conditions above, do you think that you have served as either a mentor or a role model?
- 16) If so, could you tell me about it?
- 17) Are there any time periods in which you had a mentor or role model that the questions have not covered, but you would like to discuss?
- 18) Looking back at your time transitioning into teaching, do you recall any times when you felt more mentoring or role modeling would have been beneficial?
- 19) Do you have any suggestions on how to develop an effective mentorship program for new teachers?
- 20) Are there any aspects of role models/mentor relationships that you have been involved in that I have missed with these questions that you feel would contribute to this study that you would like to share?

APPENDIX B

Letter to Request Permission from College

June, 2008

Dear President [REDACTED],

I am writing to request permission to approach faculty members and request that they participate in a research study. As we have discussed, I am currently finishing my Master of Education at Lakehead University, and as part of this educational pursuit, I have chosen to write a thesis. Your permission to carry out this study will not be taken to imply that any faculty are obligated to participate in the study. Their participation will be entirely voluntary. The study's title is *Relationships between career choice and the presence of role models/mentors for college professors*.

The intent of the study is to explore the impact that role models/mentors have had on college professors' life/career paths up to and including their transition to teaching. The interviews should be between one and one and a half hours in length, will be semi-structured with open ended questions that delve into different time periods when role models/mentors may have affected the participants' educational or career choices. These interviews will be audio recorded and the interviews will be transcribed.

Anonymity and confidentiality will be maintained for all participants interviewed, by limiting data access to the researcher, thesis committee and transcriber. The participants' names will be replaced with a non-identifying pseudonym in the transcripts and in the final report. The participants will also be allowed the opportunity to proof-read their transcripts and if they request, any information that they feel would be identifying will be removed or modified. In addition, the college's name will not be disclosed. There are minimal psychological, physiological or social risks involved in this research. Participation is voluntary. Participants will be informed that they may withdraw from the study at any time and may choose not to answer any question asked as part of the research. All participants are over the age of 21 and are not considered vulnerable. The participants will be fully informed of the nature of the study. The study does not use deception of the participant in any way.

At all times, the data will be securely stored. Once the final thesis has been completed, the raw data will be securely stored for five years at Lakehead University, as per University policy. There shall be, as required by Lakehead University, several hardcopy versions of the thesis printed. These will be distributed as follows: one copy each to the thesis supervisor, Lakehead University Paterson Library, College President, each committee member and two copies to Lakehead University's Education Library. If requested, additional copies may be submitted to [REDACTED]. Following the completion of the thesis, participants will receive a summary of this research upon request.

Any questions regarding this study can be directed to me, or to Dr. Wayne Melville, my thesis supervisor, by phone at (807) 766-7194 or wmelvill@lakeheadu.ca. You may also contact the Lakehead University Research Ethics Board at (807) 343-8283 if you have any questions. This letter has been sent to you after the approval of this study by the Research Ethics Board.

Thank you,

Rick Clace
Professor – School of Engineering Technology
rclace@[REDACTED]
home phone: [REDACTED]

APPENDIX C***College Consent Form for Study*****June, 2008**

My signature on this form indicates that Rick Clace has permission to conduct his study *Relationship between career choice and the presence of role models/mentors for college professors*. This study is a required part of Rick Clace's Master of Education degree.

I have read and understand the research study as outlined in the covering letter. It is understood that:

- 1) Participants are volunteers in this study, can withdraw at any time and may choose not to answer any question asked as part of the research.**
- 2) There are minimal psychological, physiological or social risks involved in this research.**
- 3) The data obtained will be kept confidential, and participants will remain anonymous in any and all presentation of the research findings.**
- 4) The data collected will be securely stored at Lakehead University for a period of five years. After this time has elapsed, the data will be destroyed.**
- 5) Participants, upon request, will receive a summary of the research study following the completion of the thesis.**
- 6) Copies of the completed thesis will be distributed to Lakehead University's Library and to [REDACTED].**

I, _____ have given

permission for Rick Clace to perform the study indicated above at [REDACTED]

Signature

Date

APPENDIX D***Cover Letter to Participant***

June, 2008

Dear Potential Participant,

In order to complete the requirements of my Master of Education, I am conducting a study at [REDACTED] for my thesis. The study's title is *Relationships between career choice and the presence of role models/mentors for college professors*. This study will involve interviews with several faculty members. I would like to request that you allow me to interview you for this study.

The intent of the study is to explore the impact that role models/mentors have had on college professors' life/career path up to and including their transition to teaching. The interviews should be between one and one and a half hours in length, will be semi-structured with open ended questions that delve into different time-periods when role models/mentors may have affected your educational or career choices. These interviews will be audio recorded and the interviews will be transcribed.

Anonymity and confidentiality will be maintained for all participants interviewed, by limiting data access to the researcher, thesis committee and data transcriber. The participants' names will be replaced with a non-identifying pseudonym in the transcripts and in the final report. As a participant, you will also be allowed the opportunity to proof-read your transcript and upon your request any information that you feel would be identifying will be removed or modified. In addition, the college's name will not be disclosed. There are minimal psychological, physiological or social risks involved in this research. Participation is voluntary. Participants may withdraw from the study at any time and may choose not to answer any question asked as part of the research. Participants will be fully informed of the nature of the study. The study does not use deception of the participant in any way.

At all times, the data will be securely stored. Once the final thesis has been completed, the raw data will be securely stored for five years at Lakehead University, as per University policy. There shall be, as required by Lakehead University, several hardcopy versions of the thesis printed. These will be distributed as follows: one copy each to the thesis supervisor, Lakehead University Paterson Library, College President, each committee member and two copies to Lakehead University's Education Library. If requested, additional copies may be submitted to [REDACTED]. Following the completion of the thesis, participants will receive a summary of this research upon request.

Any questions regarding this study can be directed to me, or to Dr. Wayne Melville, my thesis supervisor, by phone at (807) 766-7194 or wmelvill@lakeheadu.ca. You may also contact the Lakehead University Research Ethics Board at (807) 343-8283 if you have any questions. This letter has been sent to you after the approval of this study by the Lakehead University's Research Ethics Board and the Administration of [REDACTED].

Thank you,

Rick Clace
Professor – School of Engineering Technology
[REDACTED]

home phone: [REDACTED]
office phone: [REDACTED]

APPENDIX E:***Participant Consent Form for Study*****June, 2008****CONSENT FORM**

Having read the attached cover letter:

- I understand the cover letter for this study.
- I have been given an opportunity to openly discuss any concerns that I have with the study.
- I agree to participate in the study.
- I understand the potential risks and/or benefits of the study, and what those are.
- I understand that I am a volunteer, can withdraw from the study at any time, and have the right to not answer any question.
- I understand that the data I provide will be securely stored at Lakehead University for a period of five years, and will only be accessible to the researchers.
- I understand that the research findings will be made available to me, in the form that they are submitted for publication.
- I understand that I will remain anonymous in any publication/public presentation of the research findings.
- I understand that a copy of this consent form will be returned to me.

I hereby give my consent to being part of this research project.

NAME: _____

SIGNATURE: _____

DATE: _____

APPENDIX F

Informed Consent Checklist

General

- [x] Cover letters and consent forms are presented on Lakehead University letterhead
- [x] The language level is appropriate to the age and reading level of the subject population
- [x] Contact information for the researcher(s), the supervisor, (if it is a graduate student project) and the Research Ethics Board is always included in the cover letter that the participants will keep after they sign the consent form.

The Cover Letter/Introductory Information should include:

- [x] The title of the study
- [x] An explanation of the purpose of the research
- [x] The identity of the researcher and their affiliation with Lakehead University
- [x] The sponsor of the research, if applicable
- [x] A warm, non-coercive invitation to participate, addressed to the “Potential Participant”
- [x] The reason why the potential participant is being invited to participate in the research
- [x] That the individual’s participation is voluntary; that they may refuse to participate in any part of the study, and that they may withdraw from the study at any time
- [x] That participants may decline to answer any question
- [x] A description of the procedures the participants will be involved in and how much of their time will be required
- [x] Information regarding any audio or videotaping and explicit consent to such recording
- [x] Information about any foreseeable risks, harms, or inconveniences
- [x] Potential benefits (including information that there is no direct benefit, if appropriate)
- [N/A] A mechanism for providing referrals, if appropriate (i.e. if there is the possibility of emotional distress, or physical harm)
- [x] Information regarding who will have access to the data

- [x] Information about the storage of data (during and after completion of the research)
- [x] The degree of confidentiality and/or anonymity that will be provided and how this will be maintained (e.g. individual participants will not be identified in published results without their explicit consent; data will be published in aggregate form). For research involving anonymous surveys, it should be stated that the survey instrument will not be labeled to identify who completed it.
- [N/A] Limits on confidentiality, if applicable (e.g. confidentiality disclaimer for focus groups)
- [x] A statement indicating the researcher's intent to publish or make public presentations based on the research and whether or not the participant's identity will remain confidential (e.g., will pseudonymous be used?)
- [x] Offer of a summary of the research results (and a mechanism to provide the summary)

The Consent Form must state each individual's agreement that:

- [x] They have read and understood the cover/information letter for the study
- [x] They agree to participate
- [x] They understand the potential risks and/or benefits of the study, and what those are
- [x] That they are a volunteer and can withdraw from the study at any time, and may chose not to answer any question
- [x] The data they provide will be securely stored at Lakehead University for a period of five years
- [x] If applicable, that they understand that the research findings will be made available to them, and how this will be communicated
- [x] That they will remain anonymous in any publication/public presentation of research findings. Participants must explicitly agree to have their identities revealed.

Other Consent Information:

- [x] All participants must sign and date the consent form then return it to the researcher.

[x] Consent must also be obtained from all agencies, partners, schools, and school boards etc. that provide access to the subject pools. Separate consent forms must be included for all of the above should this apply.

[N/A] While inclusive research is important, the researcher must ensure that consent is obtained from vulnerable populations in a sensitive manner. Vulnerable populations include children, and others not competent to give free and informed consent on their own behalf. In cases like this, parent/guardian (or the individual's representative) consent must be obtained. Please note every effort should be made to ensure that participants understand and consent to their own participation as well. In exceptional cases it may be possible to obtain consent from someone under the age of 18. The researcher must explicitly demonstrate why this is necessary and how the research results would be significantly altered if parental consent was required.

*APPENDIX G:**Ethics Certificate of Completion**Certificate of Completion**This is to certify that*

Rick Clace

*has completed the Interagency Advisory Panel on Research Ethics'
Introductory Tutorial for the
Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS)*

Issued On: February 17, 2008

APPENDIX H:*Lakehead University Ethics Clearance Letter*

Lakehead

UNIVERSITY

Office of Research

July 8, 2008

Tel (807) 343-8283

Fax (807) 346-7749

Principal Investigator: Dr. Wayne Melville**Student Investigator:** Mr. Rick Clace

Faculty of Education
 Lakehead University
 955 Oliver Road
 Thunder Bay, Ontario P7B 5E1

Dear Researchers:

Re: REB Project #: 128 07-08
Granting Agency name: N/A
Granting Agency Project #: N/A

On the recommendation of the Research Ethics Board, I am pleased to grant ethical approval to your research project entitled, "Relationships between career choice and the presence of role models/mentors for college professors".

Ethics approval is valid until **July 8, 2009**. Please submit a Request for Renewal form to the Office of Research by June 8, 2009 if your research involving human subjects will continue for longer than one year. A Final Report must be submitted promptly upon completion of the project. Research Ethics Board forms are available at:

<http://bolt.lakeheadu.ca/~researchwww/internalforms.html>

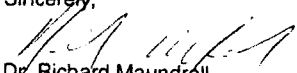
During the course of the study, any modifications to the protocol or forms must not be initiated without prior written approval from the REB. You must promptly notify the REB of any adverse events that may occur.

Completed reports and correspondence may be directed to:

Research Ethics Board
 c/o Office of Research
 Lakehead University
 955 Oliver Road
 Thunder Bay, ON P7B 5E1
 Fax: (807) 346-7749

Best wishes for a successful research project.

Sincerely,


 Dr. Richard Maundrell
 Chair, Research Ethics Board

/len

cc: Faculty of Graduate Studies
 Faculty of Education
 Office of Research

