A SURVEY OF NEWFOUNDLAND AND LABRADOR'S POST-SECONDARY INSTRUCTORS AND THEIR EMPLOYERS REGARDING THEIR VIEWS OF THE IMPORTANCE OF PRE-SERVICE TEACHER TRAINING FOR POST-SECONDARY INSTRUCTORS

BEVERLY ANN FLEET

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By

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ABSTRACT

This study examined two different groups employed in the post-secondary education sector in Newfoundland and Labrador, instructors and their employers, regarding their views of the importance of pre-service teacher preparation for post-secondary instructors prior to the commencement of teaching. As well, it examined the views of those same groups according to geographical sector; east, central, west, or north. The study also sought to identify the nature of pre-service training, if any, that was deemed important by these same groups.

Using a geographical cluster method, in which the Province was sectioned into four geographical sectors, east, central, west and north, and a single college as a cluster within each sector, a survey sample of 20% of the total population of instructors (n = 235) and 37% of the total population of employers (n = 31) was drawn using a table of random numbers. A total of 26 colleges, 116 instructors, and 18 employers participated in the study.

The survey was conducted using a mail-out questionnaire. The instructor questionnaire contained a total of 53 items and the employer questionnaire a total of 47. The questionnaires were composed of ten open-ended items, six closed items (on the instructor questionnaire only) and a series of 37 items that asked the individual to respond on a five-point Likert-type scale. The 37 items

were grouped into nine categories that corresponded to different areas of teacher training.

There were no significant differences found between the views of instructors and employers across the Province, with both instructors and employers having the view that pre-service teacher training for post-secondary instructors has importance.

The means for each section of the questionnaire were slightly different which indicated some areas of pre-service training were considered more important than others. The area given the most importance was "Lesson Presentation Skills".

There was a significant difference in the views of instructors and employers towards pre-service teacher training for post-secondary instructors among the different geographical sectors, with the west sector generally placing less importance on it than their counterparts in the east, central and north sectors.

The conclusions that can be drawn from this study are that pre-service teacher training for post-secondary instructors has importance. Therefore, it is recommended that instructors obtain teacher training before entering the classroom. As well, there were differences between geographical sectors with regards to views regarding the importance of pre-service teacher training. Therefore, further research into why this disparity exists should be conducted.

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Finally, to my husband, Terry, and my two children, Natasha and Michael, thank you for allowing me to throw our house and routines into chaos for five months! I love you all for your understanding, support, patience, and faith.

DEDICATION

This thesis is dedicated to my children,

Natasha and Michael.

May you always find the joy in learning something new.

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont'd.)

TABLE OF CONTENTS (Cont'd.)

TABLE OF CONTENTS (Cont'd.)

LIST OF TABLES

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF TABLES (Cont'd)

LIST OF FIGURES

CHAPTER 1

BACKGROUND AND ORIENTATION TO THE STUDY

Introduction

An institution of higher learning can have outstanding curriculum, excellent administration and management, and above average students, but if the classroom instructor does not provide the learners with quality instruction, quality learning may not happen. In relation to college education, Hansen (1993) stated, "Unless improved quality is integrated into the teaching-learning process, breakthroughs on the operational side, however valuable, will leave untouched the vast potential for quality improvement in higher education" (p. 261). This observation by Hansen would suggest that teacher preparation is considered an essential component in the teaching-learning process and that this also is apparent for post-secondary education. It also follows that teachers need to have a clear understanding of the teaching-learning process themselves before they can improve upon it. The Government of Newfoundland and Labrador recently published the *Post-Secondary Indicators '98* and in it acknowledged the importance of this very point with the following statement: "Instructional personnel are the contact points between post-secondary students and the post-secondary system. Effective curriculum delivery is an essential component of a high quality education program" (Government of Newfoundland and Labrador, 1998, p.89).

As well, others have recognized the relationship that exists between teaching and student performance for post-secondary educators. Walker, Gregson, and Frantz (1996) indicated there was broad agreement in the literature regarding performance of students as being closely linked to the quality of teaching and that "the quality of teaching will not improve without dramatic improvements in teacher education" (p.19).

Statement of the Problem

Preliminary information obtained through informal interviews conducted among post-secondary instructors in the Province of Newfoundland and Labrador had revealed that not all instructors in post-secondary settings benefit from pre-service teacher preparation. Following that, a study was conducted to gather the opinions of two groups of individuals, instructors and their employers, who were considered knowledgeably connected with the post-secondary education sector in Newfoundland and Labrador in order to examine their views regarding the importance of pre-service teacher training for post-secondary instructors prior to the commencement of teaching. The study also sectioned the Province into four geographical sectors, east, central, west, and north, in an effort to identify whether there were any differences in instructors' and employers' views due to their geographical location. As well, it sought their input

as to what types of training would be most beneficial as the expansion of post-secondary education continued to proceed in the Province.

Background

In Newfoundland and Labrador, a person is required to obtain a valid teaching certificate to teach in the Kindergarten to Grade 12 system (Government of Newfoundland and Labrador, 1997). This certificate is obtained only after an individual has completed the approved baccalaureate degree in education; either primary, elementary or secondary education. Typically, these baccalaureate programs contain a number of methodology courses that are applicable to the particular age groups of students that an aspiring teacher hopes to affect with their teaching, as well as other methods that are central to subject content.

However, for those individuals working in the post-secondary system, the pattern is somewhat different. Meikle (1991) stated, "Many outside the walls of Higher Education are amazed that, unlike school teachers, training of academic staff is not compulsory" (cited in Griffiths, 1993, p. 249). Traditionally, experts in various technical fields have been recruited directly from graduate schools or business and industry to teach in the many programs offered at post-secondary institutions. The former group would typically be destined to teach in academic courses; the latter group would experience teaching employment in technical

subject areas. For many of these individuals, teacher preparation occurs after they have been engaged in employment in teaching, a potential source of problems for post-secondary instructors.

Knowledge of subject matter alone, in any technical field, does not necessarily make someone an effective teacher in that field. A person may be well versed in their subject area but lack the communication skills necessary to impart that knowledge unto the student (Osgood and York, 1992). "College-level...students' achievements may be negatively impacted because college-level instructors (although well educated and informed in their particular subject matters) may not be effective classroom teachers" (Osgood and York, 1992, p. 2). While it is necessary to have instructors come from a multitude of technical areas in order to provide to students exposure to the most recent technical practices, it is considered advantageous to provide students with instructors who have knowledge of the teaching-learning process to relay this information in the best way possible. "Teachers need not only to understand the content of the subject matter they are teaching, but they also need to know something about how that content is taught and learned" (Osgood and York, 1992, p. 9).

In Newfoundland and Labrador there are a number of ways one can enter the post-secondary system as an instructor. Instructors can have a degree, a diploma, a certificate, or extensive experience in their specialty field. Typically, those instructors who hold a certificate or diploma are required to have a total of

six years training and experience in their field of instruction but a number of deviations from this policy can occur (Government of Newfoundland and Labrador, 1996). For example, Policy Document #6 (Government of Newfoundland and Labrador, 1989) allows instructors to teach for a period of time, that period depending upon their initial qualifications, before receiving any teacher training.

From discussions with beginning instructors, an expression of frustration had been noted regarding their lack of knowledge in instructional techniques. These preliminary interviews led to the conclusion that a fair number of instructors expressed a need for some type of instructional orientation before entering the classroom. Instructors stated that they found it difficult to complete the required courses in teacher training while they themselves were struggling to learn how to prepare lessons and actually preparing lessons for their students during the initial period of employment as instructors. Others had difficulty gaining access to teacher training as they resided in an area where professional courses were not easily accessible. Some instructors only began their teacher education requirements when "forced" to by their employer in order to comply with the Provincial Policy Document #6 (Government of Newfoundland and Labrador, 1989) and that resulted in an even larger gap in time between starting teacher employment and obtaining teacher preparation courses.

Statement of Purpose

The purpose of this study was to examine two different groups employed in the post-secondary education sector in Newfoundland and Labrador regarding their views of the importance of pre-service teacher preparation for post-secondary instructors prior to the commencement of teaching. As well, this study examined the views of those same groups according to geographical sector: east, central, west, or north. The study also sought to identify the nature of pre-service training, if any, that was deemed important by these same groups. The two groups identified for this study were as follows:

1. instructors who had been teaching in the post-secondary education sector for five years or less; and
2. employers; those who had jurisdiction over the hiring of instructors in both public and private colleges.

These two groups were chosen since they were two of the most likely groups in the post-secondary education sector that would have had knowledge of the problem and views regarding its nature. They would have had first hand knowledge of their professional teaching preparation relative to what is needed, or perceived important, in pre-service training of post-secondary instructors. Also, they were considered the groups most likely to have had a forceful opinion regarding the delivery of pre-service needs of new instructors in the post-secondary education sector.

Definition of Key Terms

Community college: a government supported college that is not a degree granting institution

Private college: a privately owned and operated college

Post-secondary education: education which follows high school, or secondary education, usually to obtain a degree, diploma, or certificate in some specialized area

Teacher: "one that teaches; *esp*: one whose occupation is to instruct" (Merriam-Webster, 1996, p. 1209)

Instructor: "one that instructs: TEACHER; *esp*: a college teacher below professorial rank" (Merriam-Webster, 1996, p. 606)

New instructor: an instructor that has yet to receive any teacher training

Teacher training: formal training in the methods of instruction, student evaluation, teaching-learning process

Employer: those who would have jurisdiction over hiring instructors in both public and private institutions

Significance of the Study

This study provided information regarding the importance of pre-service teacher training as viewed from the perspectives of two different groups in Newfoundland and Labrador's post-secondary education sector. As well, the results of the study may contribute to other information presently available regarding pre-service teacher training for post-secondary instructors and may be useful when planning pre-service guidelines directed to enhance the views regarding the hiring, and professional pre-service preparation, of new instructors in the post-secondary education sector in Newfoundland and Labrador. Lastly, the information that resulted from the study may be useful to those individuals who develop programs of study for aspiring post-secondary instructors.

Delimitations of the Study

In a study of those institutions that employed post-secondary instructors, it was decided to exclude Memorial University of Newfoundland. This decision was made because "all instructors hired to teach university courses and who are approved by Memorial University of Newfoundland are not required to complete the requirements for the Technical and Vocational Instructor's Certificate" (Government of Newfoundland and Labrador, 1989).

Secondly, it was decided to focus on those instructors who had five years or less teaching experience in the post-secondary education sector because the main focus of the study was to obtain the perspectives of beginning teachers.

Limitations of the Study

Since the questionnaires were administered by each college's administrative personnel, designation of those instructors who had, or did not have, pre-service training prior teaching was viewed as a potential limitation. As well, it was unknown to the researcher whether the various groups that responded to the survey appropriately self-identified their views when filling out the questionnaire, for lack of comprehension.

In an attempt to deal with these potential limitations an optional provision for a telephone interview was indicated with each mail-out survey.

Additionally, the political climate at the time of the survey may have affected the outcome of this study. At the same time this survey data was being collected, Dr. Phil Warren, commissioned by the Provincial Government, conducted a review of legislation and registration governing private colleges. The data being collected by this survey may have been impacted by the nature of the Warren Review, especially since one of Dr. Warren's review questions concerned the qualifications of instructors in private post-secondary institutions. It was not known whether this would have had a positive or negative effect on

the survey data received, nor on decisions made by instructors or employers to not respond to the survey.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

There was a quantity of literature dealing with teacher qualifications and training in the post-secondary education sector. Much of it related to the need of continual professional development to improve the quality of teaching (Katz and Henry, 1988; Eble, 1983; Frase and Conley, 1994; Griffiths, 1993; Dallat and Rae, 1993; Ashcroft, 1995; Gordon, 1996; Lacey, 1988; Kort, 1992). A smaller, but no less important, amount reviewed the importance of pre-service training in teaching (Tsunoda, 1992; Osgood and York, 1992; Ashcroft, 1995; Griffiths, 1993; Dallat and Rae, 1993). It was in these areas of pre-service teacher training, and research methods used to study this, the following literature review was focused.

The Importance of Pre-Service Training

A study conducted by a team of researchers at Virginia Tech in the United States and reported by Heath-Camp and Camp (1990) asked beginning vocational education teachers about their experiences in the classroom. This study found:

> Teachers are hired, introduced to the classroom and school, and then often left on their own to sink or swim...When they don't quit, many

> experience severe frustration, especially during their first few months in the classroom...They often express a lack of self-confidence and worry that they are not educationally prepared. (p. 22-23).

This study had been conducted on new teachers who were all considered to be content or subject matter specialists.

Knowledge of subject matter alone does not necessarily make someone a skillful teacher. Boyer (1991) stated, "It's not enough to be informed about one's subject, one has to understand the people in the room" (p. 7). "Teachers at the post-secondary level come prepared as content specialists... The challenge is to turn these content specialists into people who understand the art of teaching so thoroughly that they can teach their subjects to others" was a statement made by Stone (1990, p. 191). According to Weimer (1990a, cited in Osgood and York, 1992):

> Faculty make several flawed assumptions about teaching and learning. One of these is: <u>If you know it, you can teach it</u>. To believe that if you know it, you can teach it is to have a vision of teaching that is narrow and simplistic, a blind spot that makes instructional problems unrelated to content much more difficult to discern. (p. 8-9)

According to Osgood and York (1992), a person may be well versed in his or her subject area but lack the communication skills necessary to impart that knowledge unto the student. "College-level...students' achievements may be

negatively impacted because college-level instructors (although well educated and informed in their particular subject matters) may not be effective classroom teachers" (p. 2).

In the report of a study (Goodson and Cole, 1992), which was conducted over a two year period and explored new college teachers' professional knowledge, one study participant was quoted as saying:

> At the beginning I thought, 'How hard can it be?' I mean you just stand up and you talk, and you show them how it's done. How hard can that be? And now I know how hard it can be... I mean there's a lot more involved in being a good teacher. [You need] to know your material and how to present the material. There is a lot of people who know their material inside out, but if they can't get it across to other people so that the people can walk away and understand it...And then [you need] the ability to know how to use a classroom to its best abilities, and what works best in presenting that material. And then, after the material is presented, how to evaluate the students, and their abilities to understand. (p. 77)

This statement by a new community college teacher shows how he, after being in the classroom for a while, came to realize what kinds of things, regarding teaching, he needed to know.

Davis (1993) discussed post-secondary teaching as a profession and how teaching professionals must have knowledge in the education field beyond their subject matter knowledge:

> Perhaps the best way to think about teaching is to call it what it should be called, not an art, not a science, but a profession. Teaching involves professional judgement. Teaching calls for the *trained* [italics added] eye to see what is actually happening, and the *trained* [italics added] mind to decide what to do next... Professionals cannot rely on guesswork; as teachers, there are things we need to know. (p. 7-8)

The Shannon, Twale, & Moore (1998) study on the impact of teacher training and experience on the teaching effectiveness of graduate teaching assistants (TAs) who taught undergraduate courses at universities found that: "TAs with the most comprehensive training in pedagogical methods (i.e., undergraduate degree in education) were rated as more effective than TAs without such training" (p. 456). They went on to state that training for TAs must include a much greater emphasis on pedagogical methods and that TAs must be "adequately prepared to teach the courses for which they have been hired... so that students enrolled in these courses receive the quality of instruction for which they have paid" (p. 457). This study appeared to be linking teacher training with the quality of instruction.

Tsunoda (1992) addressed the importance of teacher training in response to the ever changing knowledge base, technologies, student demographics and post-secondary schools:

> For community colleges, the conditions of the present and future environments translate to a need for faculty with strong professional, pedagogical, and technical skills to teach adult students with diverse heritages, socioeconomic backgrounds, goals, and abilities. More than ever, community college faculty will need expertise in the subject or subjects to be taught, skill in the art of teaching, and, most important, a strong commitment to the community college mission and values. (p. 12-13)

She went on to describe what should be provided to instructors in pre-service programs:

> ...a knowledge and appreciation of community college students (their diversity in age, ability, learning styles, and socioeconomic and ethnic background), and practical experience through internships under a master teacher. Community college teachers must also understand the learning process and be acquainted with new approaches and innovations in learning. (p. 14)

The importance of instructors having a solid background in the knowledge of how students learn is an idea that was shared by Kort (1992): "To

teach more effectively, instructors need to learn more about teaching and about how their students learn" (p. 63). Ashcroft (1995) pointed out: "Teaching and learning tend to be complex human processes that depend on the quality of the interaction between the teacher and the learner. This in turn depends on well-prepared and well-trained lecturers" (p. 83).

Wolverton (1994) reported on seven case studies which discussed the role of continuous quality improvement in college classroom effectiveness efforts. In this report, she took this idea one step further by saying that not only is it important for instructors to have knowledge of the learning process, but they must teach it to their students as well:

> The exponential expansion of knowledge and the ever accelerating advances in technology, especially information delivery systems, emphasize the continuous nature of education and signal that teaching the process of learning may be as important as teaching specific course content. (p. 1)

This statement by Wolverton also addressed the importance of teacher training in relation to requisite instructor skills required to effectively engage in the process of learning with their students. They, the beginning instructors, must have training and knowledge of the learning process.

Dallat and Rae (1993) and Ashcroft (1995) both discussed the NUS Student Charter, published in 1993. This charter was produced by the British

and Scottish National Students' Unions and outlined what good quality in teaching and learning meant from the students' viewpoint. It was recommended in this charter that teaching staff be provided with courses on all methods of teaching.

A similar point was made in the *Human Resource Study of the Canadian Community Colleges and Institutes Sector* (Association of Canadian Community Colleges, 1993). This detailed report stated, "when asked about weaknesses in college instruction, students tended to point to the teaching style of their instructors" (p. 61). If students have pointed this out, then, perhaps, educators should take note.

The International Board of Standards for Training, Performance and Instruction (IBSTPI), a not-for-profit organization, had the stated mission "to promote high standards of professional practice in the areas of training, performance and instruction for the benefit of individuals and organizational consumers through research, definition and measurement of Competencies" (International Board of Standards for Training, Performance and Instruction, 1993, p. xv).

This organization developed a set of instructor competencies; "competency" being defined as "an essential skill without which an individual is not a qualified practitioner" (p. 112). The competencies for instructors were developed as a result of "research into the available literature, internal corporate

documents, observations, peer reviews and evaluation" (p. 2); had been "extensively reviewed and tested" (p. 2); and "reflect the *core competencies* of instructors - those decisions, actions and behaviors that competent instructors must demonstrate to complete an instructional assignment successfully" (p. 2). A total of 14 core competencies for instructors were identified by IBSTPI:

1. Analyze course materials and learner information.
2. Assure preparation of the instructional site.
3. Establish and maintain instructor credibility.
4. Manage the learning environment.
5. Demonstrate effective communication skills.
6. Demonstrate effective presentation skills.
7. Demonstrate effective questioning skills and techniques.
8. Respond appropriately to learners' needs for clarification or feedback.
9. Provide positive reinforcement and motivational incentives.
10. Use instructional methods appropriately.
11. Use media effectively.
12. Evaluate learner performance.
13. Evaluate delivery of instruction.
14. Report evaluation information. (p. 8)

Murray, Gillese, Lennon, Mercer, and Robison's (1996) paper on the "basic ethical principles that define the professional responsibilities of college and university professors in their role as teachers" (p. 57) discussed material taken from *Ethical Principles in University Teaching*, a document developed by the Society for Teaching and Learning in Higher Education (STLHE). This document consisted of several "ethical principles" and was to be distributed to university professors across Canada under the rationale that "in times of increased debate about accountability in higher education, there is a need for a statement that clarifies the duties and responsibilities of teachers" (p. 57).

The first ethical principle of teaching, according to this document, was "content competence". Specifically, "a teacher is responsible for maintaining (or acquiring) subject matter competence" (p.58). The second principle, and the one most interesting for the purposes of this thesis, was "pedagogical competence". This principle meant:

> ... that, in addition to knowing the subject matter, a teacher has adequate pedagogical knowledge and skills, including communication of objectives, selection of effective instructional methods, providing opportunity for practice and feedback, and dealing with student diversity. (p. 58)

The paper pointed out that teacher training has not only an important "professional" component for post-secondary instructors, but an "ethical" component as well.

Attitudes of Instructors Regarding Teacher Training

Getting instructors interested in learning how to teach appears to be a simple concept as "it only makes sense that if we could interest teachers in teaching, we could expect useful learning to follow" (Osgood and York, 1992, p. 12). However, as Eble (1983) pointed out, any efforts to improve faculty as teachers depends on the faculty's willingness to learn to be teachers. He went on to indicate that "it would seem reasonable enough that those who make their living by teaching might be responsive to being taught" (p. 134), but that "most people resist being taught what they already think they know" (p. 134). Weimer (1990b) made the statement that while many faculty members are "lifelong learners when it comes to continuing their own education in their respective disciplines,...few 'study' teaching with the same commitment and spirit of inquiry" (p. 117). In Boice's (1991) report on a study of new faculty, this point was emphasized when he stated that "a near majority of new faculty had no plans for improving their teaching" (p. 158) and that "the great majority of new faculty in their second year on campus still saw good teaching (including their own aspirations for excellence) in terms of little more than content and enthusiasm" (p. 163).

According to Wise (1991), the perception that if one knows the subject, one can teach it, has contributed to the present lack of interest toward the preparation of teachers. Berry, Filbeck, Rothstein-Fisch, and Saltman (1991),

while reporting on a faculty development program at California State University, Northridge, stated that there were two potential barriers to faculty involvement in the program:

> First, most faculty have little knowledge about pedagogical methods and research. In their graduate training and after, college teachers generally tend to focus their energies on course content, rather than on the process of teaching. Second, while most faculty are very concerned about their teaching, they are suspicious of teaching 'methods' or 'techniques', especially if those techniques or methods originate outside their disciplines. (p. 92-93)

Guskin (1994), Shannon, Twale, and Hancock (1996), and Terenzini and Pascarella (1994) found that, in general, faculty hesitated to use other teaching techniques beyond the traditional lecture. This was often due to their feeling most comfortable using lecture methods in their classes (Terenzini and Pascarella, 1994).

Ackerman's (1996) findings of a Delphi study conducted on private college business career instructors in Newfoundland reflected more positive attitudes towards teacher training. In her round two questionnaire, participants were asked to rank, in order of importance, what types of seminars and workshops they believed to be most important for their professional development purposes. All of the respondents ranked "teaching methods" (p. 71) as number

one. When asked to rank the courses they found most professionally beneficial, "basic teacher training program" and "university education courses" (p. 73) were ranked numbers three and four respectively. The two courses that were ranked higher than these were "computer courses" and "communications" (p. 73), both of which have applications in instruction. Finally, when asked to rank their professional development *priorities*, eight of the nine respondents ranked "teaching methods and strategies" (p. 76) number one.

Osgood and York's (1992) study on the attitudes of Maine's Technical College instructors towards pre-service training in teaching found:

> the data clearly indicates that Technical College faculty already see the need for <u>future</u> Technical College instructors to have training in the following areas:
>
> 73% how to teach adults
>
> 69% how to write course objectives
>
> 77% how to instruct based on meeting course objectives and considering various learning styles
>
> 68% how to prepare a test
>
> 69% how to write a test based on measuring course objectives (p. 58-59)

Another study (Higgins, Hawthorne, Cape and Bell, 1994) reported that 48 percent of two-year college teacher respondents stated "training in teaching

and learning" (p. 30) was somewhat important to have in order to be successful in teaching at a two-year college. These percentages from Osgood and York (1992) and Higgins et al. (1994) are indicative of the importance of pre-service training, since they come from instructors themselves and make a case for pre-service training in post-secondary teaching.

Methods Used in Researching Attitudes and Views

The review of the literature revealed several studies (Boice, 1991; Hall, 1996; Higgins, Hawthorne, Cape and Bell, 1994; Ostertag, 1991; Osgood and York, 1992; Shannon, Twale, and Moore, 1998) that provided insight into ways in which attitudes and perceptions of teacher training needs could be researched.

Boice's (1991) study on teaching experiences of new faculty over four successive semesters was conducted using personal interviews each semester which "produced both qualitative and quantitative results" (p. 153). This was achieved by having respondents "rate experiences on 10-point Likert scales" (p. 153) and then expand or elaborate on their quantitative answers.

Hall (1996) reported on a study designed to:

> discover the nature and extent of staff induction and initial training relating to teaching and learning which was available to new members of academic staff in Scottish higher education institutions. (p. 1)

and to:

> take some measure of how a sample of these new staff perceived the training which they had received and what other training needs, if any, they claimed to have. (p. 1)

Hall's study was conducted in two phases. In the first phase, semi-structured interviews were conducted with those responsible for staff induction and teaching support at thirteen higher education institutions. These interviews included the following topics:

> whether induction schemes and/or staff training programmes were in place
>
> what such programmes contained
>
> how such programmes were delivered
>
> the extent to which new academic staff were required to undertake such programmes
>
> the extent to which quality of teaching was a factor in individual's career development (p. 2)

Once the interviews were completed the researchers conducted a survey with questionnaires to obtain the views of staff regarding the training they had received. The questionnaires consisted of questions derived from the information gathered from the first phase of the study and questions regarding

the respondents' perceptions of the training they had received. There was no mention in the report of whether the questionnaire instrument itself was piloted.

Higgins et al. (1994) conducted a study in order to gather information to help develop a profile for recruitment of community college instructors. The study profiled, then-current, two-year college faculty members who had been identified as "committed to the missions of their two-year colleges" (p. 28). The data collection procedure used a combination of survey questionnaires and follow-up telephone interviews with those respondents who had agreed to the interview. The survey instrument was a locally developed "*Two-Year College Survey*" (p. 28) which had been "piloted on individual community college faculty members not included in the sample" (p. 28). From this pilot survey relevant changes to the instrument were made. This study experienced a "48%" response rate to the written questionnaire following which "twenty telephone interviews" were conducted (p. 28-29).

Ostertag (1991) reported to the conference "Enhancing the Quality of Teaching in Colleges and Universities" the findings of her study on professional development needs of both full-time and part-time faculty. She described the methods that were used to develop a survey questionnaire designed to collect the views of faculty and administrators regarding their perceived needs and to provide a foundation for further development. The survey instrument consisted of a 27 item questionnaire composed of "questions related to immediate needs,

professional requirements, occupational up-grading and personal interests" (p. 7). Again, there was no mention of any pilot of the instrument that was used. The results of Ostertag's study suggested that "the areas of greatest emphasis in the professional development program should be student assessment, teaching methodology, and curriculum up-dating" (p. 7).

Osgood and York's (1992) study of faculty teacher training at the post-secondary level was conducted with the use of a questionnaire. This questionnaire was developed by the researchers and was designed to determine whether or not methodology teacher training was considered to be of any significance and to determine if this was of concern to those educators. The survey instrument focused on basic questions collected from the literature regarding methodology in teaching. There was no mention in the report of the questionnaire being piloted.

Shannon, Twale, and Moore (1998) conducted their study with three purposes in mind. The first purpose was to "determine the impact that TA [Teaching Assistant] training had on undergraduate students and corresponding TA self-perceptions of nine teaching effectiveness factors" (p. 443). The second purpose was to "examine the influence of previous teaching experience on students and corresponding TA self-perceptions of nine teaching effectiveness factors" (p. 443). The final purpose was "to determine the extent to which teaching effectiveness was influenced by academic disciplines" (p. 443). A two-

part questionnaire was used to obtain the data for analysis. The first part of the questionnaire contained questions pertaining to respondent demographics. The second part consisted of:

> a Likert-type scale containing 35 teaching effectiveness items adapted from the Student Evaluation of Educational Quality [SEEQ] (Marsh, 1982a; 1982b; 1983; 1991). These 35 items converted into 9 comprehensive, highly reliable factors associated with college teaching effectiveness. (p. 446)

Conclusion on Literature Review

As a result of this literature review, it was determined that there was interest in the area of pre-service teacher training for the post-secondary education sector. It was commonly viewed that the quality of post-secondary teaching requires both vigilance and improvement (Hansen, 1993; Osgood and York, 1992; Ashcroft, 1995; Walker, Gregson, and Frantz, 1996). As Tsunoda (1992) has pointed out, pre-service teacher training programs can have far reaching benefits as they "can help to reconceptualize the role of community college faculty as a distinct part of higher education that is valued not only by community college students and their communities but also by community college educators and their colleagues" (p. 19).

Those literature that contained studies of the needs of commencing teachers were found to be incomplete with the existence of only cursory surveys conducted in post-secondary education, a field that has been characterized with dramatic changes in recent years occurring in private post-secondary schools. No studies that focused directly on the specific needs of beginning post-secondary instructors in Newfoundland and Labrador had been found.

The review of the literature did, however, provide a view of methods that can be used to conduct research in this particular area. These were largely through the use of interviews and questionnaires.

> Questionnaires and interviews are used extensively in educational research to collect information that is not directly observable. These data-collection methods typically inquire about the feelings, motivations, attitudes, accomplishments, and experiences of individuals. (Gall, Borg, and Gall, 1996, p. 288)

Boice (1991), Hall (1996), Higgins et al. (1994), Ostertag (1991), Osgood and York (1992), and Shannon, Twale, and Moore (1998) all conducted their studies using either one or both of these methods.

This literature review also provided direction regarding the nature of the questions that could be asked and assisted in determining what was considered important in pre-service training of post-secondary instructors.

Questions regarding the need for teaching methodology and knowledge of the teaching-learning process were evident in work by Stone (1990), Ostertag (1991), Boyer (1991), Goodson and Cole (1992), Tsunoda (1992), Kort (1992), Osgood and York (1993), Davis (1993), Dallat and Rae (1993), Association of Canadian Community Colleges (1993), International Board of Standards for Training, Performance and Instruction (1993), Higgins et al. (1994), Ashcroft (1995), Ackerman (1996), Murray et al. (1996), and Shannon, Twale, and Moore (1998).

Questions regarding the need for training in communication skills in pre-service teacher training were evident in work by Goodson and Cole (1992), Osgood and York (1993), International Board of Standards for Training, Performance and Instruction (1993), Ashcroft (1995), Ackerman (1996), and Murray et al. (1996).

CHAPTER 3

DESIGN OF THE STUDY

Nature of the Sample

The population used for this study was all 1152 post-secondary instructors in Newfoundland and Labrador (Government of Newfoundland and Labrador, 1998, p. 89); this included both public and private colleges. At the commencement of the study College of the North Atlantic employed 545 instructors and the private colleges employed 607 instructors (Government of Newfoundland and Labrador, 1998, p. 89). Also included in the study population were all 83 (Government of Newfoundland and Labrador, 1998, p. 3) private college employers and public college campus site administrators (collectively referred to as "employers" for the purposes of this study) who oversaw the hiring of those instructors.

Post-Secondary Indicators' 98 (Government of Newfoundland and Labrador, 1998) indicated that there were 19 public college (College of the North Atlantic) campuses and 64 individual private colleges[1] as of September, 1997, for a total of 83 post-secondary institutions, not including Memorial University of Newfoundland, in the Province (p. 3). Fifty-eight percent of the total number of

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1 Since the publication of *Post-Secondary Indicators '98*, one of the major private colleges in the Province closed five campuses. This, however, did not affect the overall percentages of colleges in each geographical sector since these campuses were located throughout the Province.

colleges were located in the eastern portion of the Province, 22 percent in the central, 13 percent in the west, and 7 percent in the north. These percentages were derived from the number of colleges located in each sector as listed in the Government of Newfoundland and Labrador, Department of Education Listing of Public and Private Post-Secondary Institutions (1997-98).

Typically, the colleges had a varying number of instructors, with those private colleges that specialized in providing vocational preparation in one occupational area, such as truck driving, employing the smaller number of instructors. To obtain a clear perspective of how the post-secondary college teaching resources were deployed relative to the total population, a decision was made to include all colleges in the population from which the sample was drawn, including those that featured such "specialized" training options and may not have had instructors who accessed pre-service teacher training. Not accessing information from such colleges would have otherwise omitted vital input for the study that had been developed, in part, to ascertain post-secondary instructor pre-service training needs.

Geographical Nature of Sample Population

A geographical cluster method was used to select the sample surveyed from the above population. It commenced with the designation of four geographical sectors of the Province, into which the clusters were placed. The

four geographical sectors were those commonly used to identify the geographical areas of the Province and was similar to those practices typically used when identifying any differences due to geographical location:

1. East (Avalon / Bonavista / Burin Peninsulas)
2. Central (Gander to Grand Falls-Windsor)
3. West (Corner Brook to Port aux Basques)
4. North (Northern Peninsula and Labrador)

The geographical designation allowed the researcher to raise questions of whether being located further away from Memorial University of Newfoundland's St. John's Campus, or locations where teacher preparation courses were offered, might affect perception of the importance of pre-service teacher training for post-secondary instructors.

Sample Size

According to Gay (1992), a minimum acceptable sample size would have been ten percent (p. 142). McMillan and Schumacher (1997) stated, "in survey research studies there should be about one hundred subjects for each major subgroup that is analyzed and twenty to fifty subjects in minor subgroups" (p. 176). In developing the survey, it was decided that approximately 20 percent of those involved in teaching in a college would constitute an acceptable sample

size from which both instructor and employer sub-samples were drawn. This resulted in identifying 235 college instructors.

Since individual instructors were not readily identifiable, it was decided that a cluster sampling method would use specific colleges as the basis for the cluster. This method was rationalized by Gay (1992). In order to ensure that the sample population, which would be dispersed across the four geographical sectors, would still reflect percentages similar to those in the total population, clusters, or colleges, were then randomly drawn until the numbers of instructors approximated the percentages of the total college population in that geographical sector, as listed in the Government of Newfoundland and Labrador, Department of Education Listing of Public and Private Post-Secondary Institutions (1997-98).

As the number of instructors per college varied, the colleges were, therefore, assigned a number and were then subjected to a random selection process using a table of random numbers until the appropriate number of instructors for each sector was obtained. The resulting sample of instructors, according to geographical sector, was as follows:

1. the east sector had a sample size of 58 percent (n=135) of the total sample (235);
2. the central sector a size of 22 percent (n=51);
3. the west sector a size of 13 percent (n=34); and

4. the north sector a size of seven percent (n=15).

Table 3.1, located in Appendix A, contains the number of colleges in each geographical sector from which the sample of colleges were randomly selected.

For the employer survey, it was decided that each college that was randomly selected using the process described above would also receive an employer survey. The resulting sample of employers, according to geographical sector, was as follows:

1. east - 17 employers
2. central - 7 employers
3. west - 4 employers
4. north - 3 employers

These numbers, totaling 31, corresponded to a sample size of approximately 37 percent of the total population (n=83) of employers.

The Survey Instrument

A questionnaire was the survey instrument. The instructor questionnaire contained a total of 53 items and the employer questionnaire a total of 47. These differed with the additional six items on the instructor questionnaire which consisted of closed questions that were developed to identify demographical information on the instructors. The items were derived from the Osgood and York (1992) instrument, after written permission from the authors had been

acquired (Appendix B). A set of instructor competency standards (International Board of Standards for Training, Performance and Instruction, 1993), and results of the general literature were also used. The questionnaires were composed of ten open-ended items, six closed items (on the instructor questionnaire only) and a series of 37 items that asked the individual to respond on a five-point Likert-type scale.

The 37 items were broken down into nine major sections which had been identified through the literature review:

1) Teaching Methods
2) Use of Instructional Media
3) Lesson Presentation Skills
4) Communication Skills
5) Positive Reinforcement and Motivating Skills
6) Managing the Learning Environment
7) Evaluating Student Performance
8) Questioning Skills and Techniques
9) Preparing Evaluation Reports

Included at the end of the questionnaire was an option for a voluntary follow-up in-depth interview. This last option was included for any needed clarification among participants and to be used in the event of a poor

questionnaire return rate. The personal interviews, however, were neither requested nor evoked by the researcher.

Appendix C contains the questionnaire and cover letter for instructors. Appendix D contains the questionnaire and cover letter for employers.

All replies were kept strictly confidential and, in compliance with the Ethical Guidelines stipulated by Memorial University's Faculty of Education, no individual respondent or college was identified in the report of the survey nor in the conduct of the study.

Validation of Survey Instrument

The questionnaires were examined for face validity. Gall, Borg & Gall (1996) stated that face validity is a "subjective inspection of the test items to judge whether they cover the content that the test purports to measure" (p. 250). Blahut and Nicely (1984) based the face validity of their Likert-type questionnaires on "the examination of each instrument by four competent judges" (p. 154). The questionnaires for this study were examined by a panel of experts consisting of two university professors and two post-secondary instructors. The changes that were recommended were incorporated into the final questionnaires.

Survey Mail-out

The mail-out, consisting of a cover letter, questionnaire, and a self-addressed stamped envelope, were either mailed, or hand delivered to each of the selected survey colleges on September 14, 1998. The deadline for return was October 5, 1998. A telephone call to remind the colleges to return the questionnaires was made two weeks after the initial mail-out.

Number of Returns on Designated Date

On October 5, 1998, the deadline stated on the questionnaire, there was a total of 68 (29%) instructor surveys and 15 (48%) employer surveys returned to the researcher. Table 3.2 shows the returns broken down by geographical sector:

Table 3.2 Returned Surveys for each Geographical Sector and Group as of October 5, 1998

Sector/Group		Number Sent	Number Returned (%)
East Sector			
	Instructor	135	47 (35%)
	Employer	17	11 (65%)
Central Sector			
	Instructor	51	11 (22%)
	Employer	7	1 (14%)
West Sector			
	Instructor	34	7 (20%)
	Employer	4	3 (75%)
North Sector			
	Instructor	15	4 (27%)
	Employer	3	0 (0%)
Total of all Sectors			
	Instructor	235	69 (29%)
	Employer	31	15 (48%)

Follow-Up

McMillan and Schumacher (1997) suggested that a "telephone call follow-up will add another 5 to 10 percent to the return rate" (p. 300). The day following the initial deadline, a telephone call to each college contact was made to further encourage the instructors and employers who had not yet sent back the questionnaires to do so. A revised date of October 19, 1998 was established for follow-up returns. This resulted in a return of 47 (20%) additional instructor surveys and three (10%) additional employer surveys.

Final Return Rate

The total return of instructor surveys was 116 (49%), and employer surveys was 18 (58%). This resulted in a combined (instructors and employers) return of 134 (50%) surveys. This return was considered adequate for three reasons: 1) the return for instructor surveys was equal to approximately ten percent of the total population (n=1152) of post-secondary instructors; 2) "Babbie (1989) suggests that a response rate of 50% is adequate" (cited in Best and Kahn, 1998, p. 310); and 3) this study was of an exploratory nature. Table 3.3 shows the final return rate and percentages for each group and geographical sector.

Table 3.3 Final Returns for each Geographical Sector and Group

Sector/Group		Number Sent	Number Returned (%)
East Sector			
	Instructor	135	72 (53%)
	Employer	17	13 (76%)
Central Sector			
	Instructor	51	23 (45%)
	Employer	7	2 (29%)
West Sector			
	Instructor	34	17 (50%)
	Employer	4	3 (75%)
North Sector			
	Instructor	15	4 (27%)
	Employer	3	0 (0%)
Total of all Sectors			
	Instructor	235	116 (49%)
	Employer	31	18 (58%)
	Total	266	134 (50%)

Survey Tracking and Recording of Data

Each survey was coded with a letter, denoting the geographical sector, and a number, denoting the college to which it was sent, for tracking purposes. Since the names of individual instructors were not known, it was impossible to track the surveys by individual respondent.

As the surveys arrived they were logged-in manually according to the code number and date they were received. This facilitated the tracking and

following-up on all mailed-out surveys by providing critical information regarding which colleges did not return the surveys.

Once logged-in, the demographic and Likert-type data in each survey was coded for statistical analysis and entered into a Lotus 1-2-3 Release 4.01 for Windows (Lotus Development Corporation, 1993) spreadsheet program. Each entry was double-checked for accuracy. The anecdotal data, that is, the comments on the open-ended items, was entered into WordPerfect version 6.1 for Windows (Novell, Inc., 1994) files that had been set up for each item.

Data Analysis

The data analysis was conducted once the Lotus 1-2-3 file was converted to a Statistical Package for Social Sciences (SPSS) version 8.0 for Windows (Norusis, 1998) file. Statistical analysis was completed on all Likert-type items and closed-ended items.

Using Cronbach's Alpha and the chi-square test, an effort was made to see if "non-respondents" would have had an effect on the overall results had they responded. These methods were applied to the surveys received prior to the deadline, "on-time responders", and those received after the deadline, "late responders", following prompting and reminders, with the idea that the "late responders" would be similar to "non-responders". The two groups were then cross-tabulated for any significant differences in responses. A significance level

of .05 was chosen. It was determined that there were no significant differences in reliability between "on-time responders" and "late responders", and with the exception of one item, item 22, which had a significance level at .05, no significant differences on the chi-square test.

The data analysis was conducted around two research questions:

1. Are there any differences between the views of instructors and those of employers across the Province with regards to the importance of pre-service teacher training for post-secondary instructors?
2. Are there any differences between the four geographical sectors in the views of both instructors and employers (combined) with regards to the importance of pre-service teacher training for post-secondary instructors?

Using Cronbach's Alpha, the internal reliability of each of the nine major sections that contained Likert-type items was analyzed. This method of testing reliability was used because it is possible to "apply Cronbach's method to many measurement procedures other than tests, including attitude instruments in which each item requires a response on a five-point scale..." (Jaeger, 1990, p. 92). As pointed out by McMillan and Schumacher (1997), "the Cronbach Alpha is generally the most appropriate type of reliability for survey research and other questionnaires in which there is a range of possible answers for each item" (p.

242). According to Fraenkel and Wallen (1993): "For research purposes ... reliability should be at least .70 and preferably higher" (p. 149).

The Likert-type items on both the instructor and employer surveys were analyzed by calculating frequency distributions, means, and standard deviations for each response. One-way analysis of variance (ANOVA), "which is used to see if there is any significant difference among the means of three or more groups" (Gay, 1992, p. 291), and the chi-square test, "which is used to compare group frequencies" (Gay, 1992, p. 291), were applied to the two main groups being studied, that is, the instructors and the employers, and the sub-groups, that is, the four geographical sectors.

Descriptive statistics (frequency, mean) were generated for items 48 to 53 on the instructor survey. These were then used to compile a profile of the instructor survey respondents. The profile of the surveyed sample of instructors included highest level of education, whether they were engaged in some type of formal training program at the time of the survey, the number of years they had been teaching in the post-secondary sector, whether or not they had prior teacher training in four separate areas, and whether or not they have had teacher training since being employed.

Independent Variables

The data was analyzed using the following independent variables:

1. instructor;
2. employer; and
3. geographical location (east, central, west, or north) of instructors and employers.

Dependent Variable

The dependent variable for all analyses was the respondents' views regarding the importance pre-service teacher training for post-secondary instructors.

CHAPTER 4

RESULTS

Introduction

The results of the analysis of the data collected for the study are reported in this chapter. The analysis was conducted around two research questions:

1. Are there any differences between the views of instructors and those of employers across the Province with regards to the importance of pre-service teacher training for post-secondary instructors?
2. Are there any differences between the four geographical sectors in the views of both instructors and employers (combined) with regards to the importance of pre-service teacher training for post-secondary instructors?

Tables consisting of descriptive statistics, frequencies and means, of the instructor sample profile are included. The analysis was based on several variables: instructor, employer, and geographical sector. The following statistical results will be discussed: reliability analysis of each of the nine questionnaire sections, cross tabulation and chi-square results of individual items, and the results of the analysis of variance of each of the nine questionnaire sections. Tabular representation of the results will also be included. The anecdotal data, that was in the form of comments made by

respondents in each of the nine questionnaire sections and item 47, will be discussed briefly. Appendix E contains all of the comments made by instructors and employers.

Demographic Information

The study was conducted in all four geographical sectors (east, central, west, and north) of the Province. Participating in the study was a total of 26 colleges that included 116 instructors and 18 employers.

The instructor survey collected demographical data such as level of education, type of training programs engaged in at the time of the study, number of years teaching, whether they possessed a Newfoundland Vocational and Technical Instructor's Certificate, and the nature of teacher training that had been obtained prior to and since employment. The instructor sample profile is presented in Table 4.1.

Table 4.1 Profile of Instructor Sample

			Frequency	Percent
Highest Level of Education (n = 115)[1]				
		College Diploma	55	48%
		Bachelor's Degree	44	38%
		Master's Degree	5	4%
		Doctorate Degree	2	2%
		Other[2]	9	8%
Type of program of study presently enrolled in (n = 115)		None	71	62%
		College Diploma	4	3%
		Associate Degree	7	6%
		Bachelor's Degree	11	10%
		Master's Degree	5	4%
		Other[2]	17	15%
Number of years teaching in a post-secondary institution (n = 112)		Less than 1 year	36	32%
		2 - 3 years	38	34%
		4 - 5 years	38	34%
Possess a Newfoundland Technical and Vocational Instructor's Certificate. (n = 111)				
		Yes	21	19%
		No	90	81%
Number of instructors that answered "yes" to formal training prior to post-secondary school employment in: (n = 112)				(Yes)
	A.	How to teach adult students	51	38%
	B.	How to write course objectives	53	40%
	C.	How to instruct based on meeting course objectives and considering various learning styles	57	42%
	D.	How to write a test based on measuring course objectives	45	34%
	E.	Training in none of the above	41	37%

Table 4.1 Continued

Number of instructors that answered "yes" to formal training since post-secondary school employment in: (n = 108)				(Yes)
	A.	How to teach adult students	53	49%
	B.	How to write course objectives	52	48%
	C.	How to instruct based on meeting course objectives and considering various learning styles	60	60%
	D.	How to write a test based on measuring course objectives	50	46%
The number of instructors with **no prior training** in any of the four areas listed who have had training **since** in: (n = 41)				(Yes)
	A.	How to teach adult students	17	41%
	B.	How to write course objectives	17	41%
	C.	How to instruct based on meeting course objectives and considering various learning styles	21	51%
	D.	How to write a test based on measuring course objectives	17	41%
	E.	Training in none of the above	19	46%
Geographical Sector (n = 116)				
		East	72	62%
		Central	23	20%
		West	17	15%
		North	4	3%

[1] The variations in the number for each section are due to some respondents omitting the item
[2] "Other" included qualifications from industry, Microsoft Certification, etc.

Research Question 1

The first research question was: Are there any differences between the views of instructors and those of employers across the Province with regards to the importance of pre-service teacher training for post-secondary instructors?

In order to address this question, a set of 37 Likert-type questions that included a range of responses from one (very important) to five (not important) was developed and divided into nine sections, which were supported by the literature, on the questionnaire and analyzed. Each of the nine sections were investigated separately. The nine sections were:

1. Teaching Methods
2. Use of Instructional Media
3. Lesson Presentation Skills
4. Communication Skills
5. Positive Reinforcement and Motivating Skills
6. Managing the Learning Environment
7. Evaluating Student Performance
8. Questioning Skills and Techniques
9. Preparing Evaluation Reports

Teaching Methods

The first section of the questionnaire was concerned with the area of teaching methodology, as it relates to pre-service teacher training for post-secondary instructors, and contained five items. The correlation coefficients, means, and standard deviations for the five items were used to calculate the reliability coefficient. Table 4.2 contains a correlation matrix of the five items. The overall Cronbach's alpha reliability coefficient of .8946 gave evidence that these items were acceptable. Therefore, all five items were used to investigate the views of both instructors and employers regarding the importance of teaching methodology training in pre-service teacher training for post-secondary instructors.

Table 4.2 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Teaching Methodology Training in Pre-Service Teacher Training (n = 130)

	Q1	Q2	Q3	Q4	Q5
Q1	1.0000				
Q2	.6821	1.0000			
Q3	.6634	.6705	1.0000		
Q4	.6655	.6602	.6405	1.0000	
Q5	.5012	.5723	.5517	.7016	1.0000
X	1.6846	1.9462	1.8385	1.8231	1.8231
SD	.8808	.9006	.9868	.9356	.9439

Alpha Reliability = .8946

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. Item one was the only item in this section that revealed a significant difference ($X^2 = 12.395$, $p<.05$) between instructors and employers views. The analysis of the data indicated that only 50 percent of instructors rated pre-service teacher training in "how to implement a variety of standard teaching methods" as "very important" while 72 percent of employers did so. Table 4.3 contains the cross tabulation and chi-square results for all five items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Teaching Methods section as a whole, the results of which are contained in Table 4.4. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in teaching methods. The means indicated that both instructors and employers viewed pre-service training in teaching methodologies as having importance for instructors to have.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the

means of the two groups, instructors and employers. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.5. This analysis indicated that there was no significant difference (p =.171) between the two groups on their views of the importance of pre-service teacher training in teaching methods despite the significant difference found in item one.

Item six on the questionnaire asked respondents to describe any other aspects of teaching methods they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. The comments were many and varied, with no real commonalities among them. Appendix E contains these comments.

Table 4.3 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Teaching Methods Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	df	Sig.
1. How to implement a variety of standard teaching methods.	Instructors Employers Total	57 (50%) 13 (72%) 70 (53%)	37 (33%) 1 (5.6%) 38 (29%)	16 (14%) 3 (17%) 19 (14%)	4 (3%) 0 4 (3%)	0 1 (5.6%) 1 (1%)	114 18 132	12.395	4	.015
2. How to manage group dynamics associated with each teaching method.	Instructors Employers Total	38 (33%) 10 (56%) 48 (36%)	43 (38%) 6 (33%) 49 (37%)	26 (23%) 2 (11%) 28 (21%)	6 (5%) 0 6 (5%)	1 (1%) 0 1 (1%)	114 18 132	4.299	4	.367
3. How to use teaching methods that are appropriate to particular teaching situations.	Instructors Employers Total	50 (44%) 12 (67%) 62 (47%)	35 (31%) 3 (17%) 38 (29%)	21 (18%) 2 (11%) 23 (17%)	7 (6%) 0 7 (5%)	1 (1%) 1 (5%) 2 (2%)	114 18 132	6.613	4	.158
4. How to judge the appropriateness of teaching methods for different situations.	Instructors Employers Total	46 (40%) 12 (67%) 58 (44%)	45 (40%) 3 (17%) 48 (36%)	16 (14%) 2 (11%) 18 (14%)	5 (4%) 1 (5%) 6 (4%)	2 (2%) 0 2 (2%)	114 18 132	5.134	4	.274
5. How to judge the effectiveness of selected teaching methods.	Instructors Employers Total	47 (42%) 12 (67%) 59 (45%)	42 (37%) 2 (11%) 44 (34%)	18 (16%) 3 (17%) 21 (16%)	2 (2%) 1 (5%) 3 (2%)	3 (3%) 0 3 (3%)	112 18 130	6.716	4	.152

Table 4.4 Means and Standard Deviations of Responses by Instructors and Employers in the Teaching Methods Section of Questionnaire.

Group	N	Mean	SD
Instructors	112	1.8607	.7696
Employers	18	1.5889	.8274
Total	130	1.8231	.7802

Table 4.5 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in the Area of Teaching Methods

Source	SS	*df*	MS	F	p
Between Groups	1.146	1	1.146	1.895	.171
Within Groups	77.385	128	.605		
Total	78.531	129			

Use of Instructional Media

The second section of the questionnaire was concerned with the area of the use of instructional media, as it relates to pre-service teacher training for post-secondary instructors, and contained four items. The correlation coefficients, means, and standard deviations for the four items were used to calculate the reliability coefficient. Table 4.6 contains a correlation matrix of the four items. The overall Cronbach's alpha reliability coefficient of .8222 gave evidence that these items were acceptable. Therefore, all four items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of the use of instructional media.

Table 4.6 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in the Use of Instructional Media (n = 133)

	Q7	Q8	Q9	Q10
Q7	1.0000			
Q8	.6092	1.0000		
Q9	.6443	.5777	1.0000	
Q10	.4338	.3665	.5927	1.0000
X	2.1955	2.4962	2.3684	2.1880
SD	1.1445	1.0984	1.0111	1.0087

Alpha Reliability = .8222

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis showed no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.7 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Use of Instructional Media section as a whole, the results of which are contained in Table 4.8. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in the use of instructional media. The means indicated that both instructors and employers viewed acquiring pre-service training in the use of instructional media as having importance for instructors with employers placing slightly more importance on the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views on the importance of pre-service teacher training in the use of instructional

media. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.9. This analysis indicated that there was no significant difference ($p = .585$) between the two groups.

Item 11 on the questionnaire asked respondents to describe any other aspects of the use of instructional media they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. The comments were many and varied and did not contain any common theme. Appendix E contains these comments.

Table 4.7 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Use of Instructional Media Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
7. How to properly use instructional media and hardware	Instructors Employers Total	39 (34%) 7 (39%) 46 (35%)	33 (29%) 6 (33%) 39 (29%)	25 (22%) 5 (28%) 30 (23%)	12 (10%) 0 12 (9%)	6 (5%) 0 6 (4%)	115 18 133	3.295	4	.510
8. How to trouble-shoot instructional equipment, such as overhead projectors and computers, and other simple problems	Instructors Employers Total	28 (24%) 3 (17%) 31 (23%)	27 (24%) 5 (28%) 32 (24%)	39 (34%) 9 (50%) 48 (36%)	16 (14%) 1 (5%) 17 (13%)	5 (4%) 0 5 (4%)	115 18 133	3.263	4	.515
9. How to substitute for, add to, switch, or create instructional media that may be required	Instructors Employers Total	26 (23%) 3 (17%) 29 (22%)	39 (34%) 6 (33%) 45 (34%)	36 (31%) 8 (44%) 44 (33%)	10 (9%) 1 (6%) 11 (8%)	4 (3%) 0 4 (3%)	115 18 133	1.878	4	.758
10. How to judge whether instructional media has been effectively used	Instructors Employers Total	31 (27%) 4 (22%) 35 (26%)	48 (42%) 9 (50%) 57 (43%)	21 (18%) 4 (22%) 25 (19%)	12 (10%) 1 (6%) 13 (10%)	3 (3%) 0 3 (2%)	115 18 133	1.359	4	.851

Table 4.8 Means and Standard Deviations of Responses by Instructors and Employers in the Use of Instructional Media Section of Questionnaire.

Group	N	Mean	SD
Instructors	115	2.3283	.8819
Employers	18	2.2083	.7339
Total	133	2.3120	.8619

Table 4.9 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in the Area of Use of Instructional Media

Source	SS	*df*	MS	F	p
Between Groups	.224	1	.224	.300	.585
Within Groups	97.827	131	.747		
Total	98.051	132			

Lesson Presentation Skills

The third section of the questionnaire was concerned with the area of lesson presentation skills, as it relates to pre-service teacher training for post-secondary instructors, and contained four items. The correlation coefficients, means, and standard deviations for the four items were used to calculate the reliability coefficient. Table 4.10 contains a correlation matrix of the four items. The overall Cronbach's alpha reliability coefficient of .8655 gave evidence that these items were acceptable. Therefore, all four items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of lesson presentation skills.

Table 4.10 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Lesson Presentation Skills (n = 132)

	Q12	Q13	Q14	Q15
Q12	1.0000			
Q13	.8036	1.0000		
Q14	.5019	.5864	1.0000	
Q15	.4751	.5481	.9000	1.0000
X	2.1061	2.0000	1.4545	1.4697
SD	1.0719	.9571	.7752	.7857

Alpha Reliability = .8655

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis showed no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.11 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Lesson Presentation Skills section as a whole, the results of which are contained in Table 4.12. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in lesson presentation skills. The means indicated that both instructors and employers viewed acquiring pre-service training in lesson presentation skills as having importance for instructors with instructors attributing slightly more importance to the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views on the importance of pre-service teacher training in lesson presentation skills.

The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.13. This analysis indicated that there was no significant difference ($p = .485$) between the two groups.

Item 16 on the questionnaire asked respondents to describe any other aspects of lesson presentation skills they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. It was noted that two individuals, an instructor and an employer, both had the view that lesson presentation skills "could be achieved without training" and that "most of this comes from one's own experience as a student and increases as one gains experience as an instructor. Training prior to teaching would not be a good use of training time", views that were contrary to the overall views of post-secondary instructors and employers. Appendix E contains these and the other comments.

Table 4.11 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Lesson Presentation Skills Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
12. How to use a teaching voice effectively	Instructors	47 (41%)	27 (23%)	29 (25%)	9 (8%)	3 (3%)	115	3.823	4	.430
	Employers	4 (22%)	7 (39%)	6 (33%)	1 (6%)	0	18			
	Total	51 (38%)	34 (26%)	35 (26%)	10 (8%)	3 (2%)	133			
13. How to use eye contact effectively	Instructors	45 (40%)	33 (29%)	30 (26%)	5 (4%)	1 (1%)	114	.644	4	.958
	Employers	6 (33%)	5 (28%)	6 (33%)	1 (6%)	0	18			
	Total	51 (39%)	38 (29%)	36 (27%)	6 (4%)	1 (1%)	132			
14. How to effectively organize lesson content	Instructors	78 (68%)	24 (21%)	11 (9%)	2 (2%)	0	115	8.767	4	.067
	Employers	12 (67%)	5 (28%)	0	0	1 (5%)	18			
	Total	90 (68%)	29 (22%)	11 (8%)	2 (1%)	1 (1%)	133			
15. How to effectively organize course content	Instructors	79 (69%)	23 (20%)	11 (10%)	2 (2%)	0	115	8.650	4	.070
	Employers	10 (56%)	6 (33%)	1 (5.5%)	0	1 (5.5%)	18			
	Total	89 (67%)	29 (22%)	12 (9%)	2 (1%)	1 (1%)	133			

Table 4.12 Means and Standard Deviations of Responses Made by Instructors and Employers in the Lesson Presentation Skills Section of Questionnaire.

Group	N	Mean	SD
Instructors	114	1.7390	.7565
Employers	18	1.8750	.8280
Total	132	1.7576	.7648

Table 4.13 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Lesson Presentation Skills

Source	SS	*df*	MS	F	p
Between Groups	.287	1	.287	.489	.485
Within Groups	76.330	130	.587		
Total	76.617	131			

Communication Skills

The fourth section of the questionnaire was concerned with the area of communication skills, as it relates to pre-service teacher training for post-secondary instructors, and contained four items. The correlation coefficients, means, and standard deviations for the four items were used to calculate the reliability coefficient. Table 4.14 contains a correlation matrix of the four items. The overall Cronbach's alpha reliability coefficient of .8827 gave evidence that these items were acceptable. Therefore, all four items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of communication skills.

Table 4.14 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Communication Skills (n = 131)

	Q17	Q18	Q19	Q20
Q17	1.0000			
Q18	.6717	1.0000		
Q19	.6128	.6334	1.0000	
Q20	.6703	.6549	.6782	1.0000
X	2.3425	1.8931	1.7939	1.8779
SD	.9428	.8966	.9091	.8946

Alpha Reliability = .8827

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis showed no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.15 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Communication Skills section as a whole, the results of which are contained in Table 4.16. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in communication skills. The means indicated that both instructors and employers viewed pre-service training in communication skills as having importance for instructors to have acquired with instructors attributing more importance to the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views on the importance of pre-service teacher training in communication skills. The

mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.17. This analysis indicated that there was no significant difference ($p = .132$) between the two groups.

Item 21 on the questionnaire asked respondents to describe any other aspects of communication skills they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. There was only a few comments made here and they varied, again with no common theme. Appendix E contains these comments.

Table 4.15 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Communication Skills Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	df	Sig.
17. How to use gestures, silence, movement, posture, space and props effectively	Instructors Employers Total	27 (24%) 1 (5%) 28 (21%)	35 (31%) 9 (50%) 44 (33%)	41 (36%) 5 (28%) 46 (35%)	9 (8%) 3 (17%) 12 (9%)	2 (2%) 0 2 (2%)	114 18 132	6.076	4	.194
18. How to adapt verbal and nonverbal messages to provide instruction to those students who have special needs	Instructors Employers Total	53 (46%) 4 (22%) 57 (43%)	32 (28%) 8 (44%) 40 (30%)	27 (23%) 4 (22%) 31 (23%)	3 (3%) 2 (11%) 5 (4%)	0 0 0	115 18 133	6.501	3	.090
19. How to determine whether students understand teaching messages	Instructors Employers Total	54 (47%) 6 (33%) 60 (45%)	39 (34%) 7 (39%) 46 (35%)	17 (15%) 3 (17%) 20 (15%)	3 (3%) 1 (5.5%) 4 (3%)	1 (1%) 1 (5.5%) 2 (2%)	114 18 132	3.487	4	.480
20. How to use active listening techniques	Instructors Employers Total	51 (45%) 6 (33%) 57 (44%)	31 (27%) 6 (33%) 37 (28%)	28 (25%) 5 (28%) 33 (25%)	3 (3%) 1 (6%) 4 (3%)	0 0 0	113 18 131	1.171	3	.760

Table 4.16 Means and Standard Deviations of Responses Made by Instructors and Employers in the Communication Skills Section of Questionnaire.

Group	N	Mean	SD
Instructors	113	1.9358	.7624
Employers	18	2.2361	.8848
Total	131	1.9771	.7835

Table 4.17 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Communication Skills

Source	SS	*df*	MS	F	p
Between Groups	1.400	1	1.400	2.303	.132
Within Groups	78.406	129	.608		
Total	79.806	130			

Positive Reinforcement and Motivating Skills

The fifth section of the questionnaire was concerned with the area of positive reinforcement and motivating skills, as it relates to pre-service teacher training for post-secondary instructors, and contained three items. The correlation coefficients, means, and standard deviations for the three items were used to calculate the reliability coefficient. Table 4.18 contains a correlation matrix of the three items. The overall Cronbach's alpha reliability coefficient of .8581 gave evidence that these items were acceptable. Therefore, all three items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of positive reinforcement and motivating skills.

Table 4.18 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Positive Reinforcement and Motivating Skills (n = 130)

	Q22	Q23	Q24
Q22	1.0000		
Q23	.7011	1.0000	
Q24	.6428	.6638	1.0000
X	1.9154	1.7923	1.8385
SD	.8895	.9039	.9384

Alpha Reliability = .8581

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis indicated that there were no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.19 contains the cross tabulation and chi-square results for all three items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Positive Reinforcement and Motivating Skills section as a whole, the results of which are contained in Table 4.20. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in positive reinforcement and motivating skills. The means indicated that both instructors and employers viewed pre-service training in positive reinforcement and motivating skills as having importance for instructors to have acquired with employers attributing more importance to the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views

on the importance of pre-service teacher training in positive reinforcement and motivating skills. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.21. This analysis indicated that there was no significant difference ($p = .541$) between the two groups.

Item 25 on the questionnaire asked respondents to describe any other aspects of positive reinforcement and motivating skills they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. Once again, there appeared to be no common theme within the few comments made by instructors. No employers commented on this item. Appendix E contains the comments made by instructors.

Table 4.19 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Positive Reinforcement and Motivating Skills Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	df	Sig.
22. How to match learning outcomes to the needs and goals of both the student and the school	Instructors Employers Total	42 (37%) 9 (50%) 51 (38%)	43 (37%) 6 (33%) 49 (37%)	23 (20%) 3 (17%) 26 (20%)	7 (6%) 0 7 (5%)	0 0 0	115 18 133	1.991	3	.574
23. How to motivate students to learn a lesson	Instructors Employers Total	53 (47%) 9 (50%) 62 (47%)	38 (33%) 7 (39%) 45 (34%)	17 (15%) 1 (5.5%) 18 (14%)	6 (5%) 0 6 (4%)	0 1 (5.5%) 1 (1%)	114 18 132	8.460	4	.076
24. How to plan and deliberately use feedback and positive reinforcement during instruction	Instructors Employers Total	52 (46%) 8 (44%) 60 (46%)	35 (31%) 7 (39%) 42 (32%)	19 (17%) 2 (11%) 21 (16%)	7 (6%) 0 7 (5%)	0 1 (6%) 1 (1%)	113 18 131	8.020	4	.091

Table 4.20 Means and Standard Deviations of Responses Made by Instructors and Employers in the Positive Reinforcement and Motivating Skills Section of Questionnaire.

Group	N	Mean	SD
Instructors	112	1.8661	.7947
Employers	18	1.7407	.8749
Total	130	1.8487	.8039

Table 4.21 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Positive Reinforcement and Motivating Skills

Source	SS	*df*	MS	F	p
Between Groups	.244	1	.244	.375	.541
Within Groups	83.115	128	.649		
Total	83.358	129			

Managing the Learning Environment

The sixth section of the questionnaire was concerned with the area of learning environment management, as it relates to pre-service teacher training for post-secondary instructors, and contained six items. The correlation coefficients, means, and standard deviations for the six items were used to calculate the reliability coefficient. Table 4.22 contains a correlation matrix of the six items. The overall Cronbach's alpha reliability coefficient of .8942 gave evidence that these items were acceptable. Therefore, all six items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of learning environment management.

Table 4.22 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Managing the Learning Environment (n = 127)

	Q26	Q27	Q28	Q29	Q30	Q31
Q26	1.0000					
Q27	.7400	1.0000				
Q28	.5205	.5731	1.0000			
Q29	.5266	.5991	.9107	1.0000		
Q30	.5587	.6396	.5782	.6459	1.0000	
Q31	.4663	.4868	.5018	.4543	.5952	1.0000
X	2.5276	2.1654	1.8268	1.7953	1.9370	1.6850
SD	1.0065	.9901	.9180	.9540	.9063	.9487

Alpha Reliability = .8942

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis indicated that there were no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.23 contains the cross tabulation and chi-square results for all six items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Managing the Learning Environment section as a whole, the results of which are contained in Table 4.24. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in learning environment management. The means indicated that both instructors and employers viewed pre-service training in learning environment management as having importance for instructors to have acquired with employers attributing more importance to the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views on the importance of pre-service teacher training in managing the learning environment. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.25. This analysis indicated that there was no significant difference ($p = .667$) between the two groups.

Item 32 on the questionnaire asked respondents to describe any other aspects of managing the learning environment they felt were important to have in pre-service teacher training but were not covered in the Likert-type items.

Only a few instructors commented on this item with, again, there being no common theme within their comments. Appendix E contains the comments made by these instructors. No employers commented on this item.

Table 4.23 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Managing the Learning Environment Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
26. How to prepare the instructional site to support the instruction	Instructor Employer Total	20 (18%) 1 (6%) 21 (16%)	34 (30%) 9 (50%) 43 (33%)	38 (34%) 8 (44%) 46 (35%)	16 (14%) 0 16 (12%)	5 (4%) 0 5 (4%)	113 18 131	7.166	4	.127
27. How to involve students in establishing a comfortable learning environment	Instructor Employer Total	37 (33%) 4 (22%) 41 (32%)	34 (30%) 5 (28%) 39 (30%)	32 (29%) 9 (50%) 41 (32%)	7 (6%) 0 7 (5%)	1 (2%) 0 2 (1%)	112 18 130	4.314	4	.365
28. How to manage the time that is required for each lesson	Instructor Employer Total	51 (46%) 8 (44%) 59 (45%)	36 (32%) 9 (50%) 45 (35%)	16 (14%) 1 (6%) 17 (13%)	9 (8%) 0 9 (7%)	0 0 0	112 18 130	3.783	3	.286
29. How to manage the time that is required for each course	Instructor Employer Total	57 (50%) 7 (39%) 64 (49%)	31 (27%) 10 (56%) 41 (31%)	16 (14%) 1 (6%) 17 (13%)	8 (7%) 0 8 (6%)	1 (1%) 0 1 (1%)	113 18 131	6.667	4	.155

Table 4.23 continued

		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	**Group**	**VI**	**2**	**3**	**4**	**NI**	**Total**	**Value**	***df***	**Sig.**
30. How to manage students' interactions and participation in the class	Instructor Employer Total	43 (38%) 7 (39%) 50 (38%)	40 (35%) 8 (44%) 48 (37%)	23 (20%) 2 (11%) 25 (19%)	7 (6%) 1 (6%) 8 (6%)	0 0 0	113 18 131	1.055	3	.788
31. How to deal with those students who exhibit behaviour problems	Instructor Employer Total	65 (59%) 10 (56%) 75 (58%)	25 (22%) 4 (22%) 29 (23%)	13 (12%) 3 (17%) 16 (12%)	8 (7%) 1 (5%) 9 (7%)	0 0 0	111 18 129	.392	3	.942

Table 4.24 Means and Standard Deviations of Responses Made by Instructors and Employers in the Managing the Learning Environment Section of Questionnaire.

Group	N	Mean	SD
Instructors	109	2.0015	.7972
Employers	18	1.9167	.6110
Total	127	1.9895	.7720

Table 4.25 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Managing the Learning Environment

Source	SS	*df*	MS	F	p
Between Groups	.111	1	.111	.185	.667
Within Groups	74.986	125	.600		
Total	75.097	126			

Evaluating Student Performance

The seventh section of the questionnaire was concerned with the area of evaluating student performance, as it relates to pre-service teacher training for post-secondary instructors, and contained five items. The correlation coefficients, means, and standard deviations for the five items were used to calculate the reliability coefficient. Table 4.26 contains a correlation matrix of the five items. The overall Cronbach's alpha reliability coefficient of .9319 gave evidence that these items were acceptable. Therefore, all five items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of student performance evaluation.

Table 4.26 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Evaluating Student Performance (n = 130)

	Q33	Q34	Q35	Q36	Q37
Q33	1.0000				
Q34	.6559	1.0000			
Q35	.5990	.8783	1.0000		
Q36	.6600	.8237	.8022	1.0000	
Q37	.6406	.7364	.7231	.8011	1.0000
X	1.9154	1.6462	1.7846	1.7385	1.8846
SD	.9153	.9053	.9563	.9769	.9615

Alpha Reliability = .9319

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis indicated that there were no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.27 contains the cross tabulation and chi-square results for all five items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Evaluating Student Performance section as a whole, the results of which are contained in Table 4.28. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in evaluating student performance. The means indicated that both instructors and employers viewed pre-service training in evaluating student performance as having importance for instructors to have acquired with employers attributing more importance to the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views on the importance of pre-service teacher training in evaluating student performance. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.29. This analysis indicated that there was no significant difference ($p = .644$) between the two groups.

Item 38 on the questionnaire asked respondents to describe any other aspects of evaluating student perfromance they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. Only instructors responded to this item and, again, there was no common theme

within their comments. One instructor, however, voiced the same view as in a previous item and felt that "this again is mostly a natural occurance (sic)", a view that was contrary to the overall views of post-secondary instructors and employers. Appendix E contains these comments.

Table 4.27 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Evaluating Student Performance Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
33. How to monitor student progress during instruction	Instructors	42 (37%)	44 (39%)	19 (17%)	8 (7%)	0	113	1.924	3	.588
	Employers	9 (53%)	4 (23%)	3 (18%)	1 (6%)	0	17			
	Total	51 (39%)	48 (37%)	22 (17%)	9 (7%)	0	130			
34. How to prepare tests and other methods of evaluation	Instructors	67 (59%)	27 (24%)	13 (11%)	5 (4%)	1 (1%)	113	2.293	4	.682
	Employers	9 (50%)	7 (39%)	1 (6%)	1 (6%)	0	18			
	Total	76 (58%)	34 (26%)	14 (11%)	6 (5%)	1 (1%)	131			
35. How to grade tests and other methods of evaluation	Instructors	59 (52%)	29 (26%)	18 (16%)	5 (4%)	2 (2%)	113	3.606	4	.462
	Employers	7 (39%)	8 (44%)	3 (17%)	0	0	18			
	Total	66 (50%)	37 (28%)	21 (16%)	5 (4%)	2 (2%)	131			
36. How to evaluate whether or not students have attained end-of-course objectives	Instructors	62 (55%)	24 (21%)	18 (16%)	8 (7%)	1 (1%)	113	3.686	4	.450
	Employers	11 (61%)	6 (33%)	1 (6%)	0	0	18			
	Total	73 (56%)	30 (23%)	19 (14%)	8 (6%)	1 (1%)	131			

Table 4.27 continued

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
37. How to judge the adequacy of the evaluation method used	Instructors	49 (43%)	34 (30%)	23 (20%)	6 (5%)	1 (1%)	113	.450	4	.978
	Employers	9 (50%)	5 (28%)	3 (17%)	1 (6%)	0	18			
	Total	58 (44%)	39 (30%)	26 (20%)	7 (5%)	1 (1%)	131			

Table 4.28 Means and Standard Deviations of Responses Made by Instructors and Employers in the Evaluating Student Performance Section of Questionnaire.

Group	N	Mean	SD
Instructors	113	1.8071	.8552
Employers	17	1.7059	.7146
Total	130	1.7938	.8364

Table 4.29 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Evaluating Student Performance

Source	SS	*df*	MS	F	p
Between Groups	.151	1	.151	.215	.644
Within Groups	90.084	128	.704		
Total	90.235	129			

Questioning Skills and Techniques

The eighth section of the questionnaire was concerned with the area of questioning skills and techniques, as it relates to pre-service teacher training for post-secondary instructors, and contained four items. The correlation coefficients, means, and standard deviations for the four items were used to calculate the reliability coefficient. Table 4.30 contains a correlation matrix of the four items. The overall Cronbach's alpha reliability coefficient of .9242 gave evidence that these items were acceptable. Therefore, all four items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of questioning skills and techniques.

Table 4.30 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Questioning Skills and Techniques (n = 132)

	Q39	Q40	Q41	Q42
Q39	1.0000			
Q40	.8128	1.0000		
Q41	.6629	.7520	1.0000	
Q42	.7455	.7651	.7988	1.0000
X	2.0152	1.7879	1.9848	1.9470
SD	.9570	.8383	.8909	.9106

Alpha Reliability = .9242

Each item in the section was then analyzed for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis indicated that there were no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.31 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Questioning Skills and Techniques section as a whole, the results of which are contained in Table 4.32. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in questioning skills and techniques. The means indicated that both instructors and employers viewed pre-service training in questioning skills and techniques as having importance for instructors to have acquired.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views on the importance of pre-service teacher training in questioning skills and

techniques. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.33. This analysis indicated that there was no significant difference (p =.952) between the two groups.

Item 43 on the questionnaire asked respondents to describe any other aspects of questioning skills and techniques they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. Only two individuals, one instructor and one employer, commented on this item by saying it was important to know "how to determine if certain questions should or should not be used" and how to handle "difficult questions and students". Appendix E contains these comments.

Table 4.31 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Questioning Skills and Techniques Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
39. How to use appropriate question types and levels to enhance student learning	Instructors Employers Total	42 (36%) 4 (22%) 46 (35%)	41 (36%) 10 (56%) 51 (38%)	26 (23%) 2 (11%) 28 (21%)	3 (2.5%) 2 (11%) 5 (4%)	3 (2.5%) 0 3 (2%)	115 18 133	6.968	4	.138
40. How to determine if the students are understanding the lesson material by using appropriate questioning techniques	Instructors Employers Total	50 (44%) 6 (33%) 56(42%)	47 (41%) 10 (56%) 57 (43%)	12 (10%) 2 (11%) 14 (10%)	5 (4%) 0 5 (4%)	1 (1%) 0 1 (1%)	115 18 133	2.110	4	.716
41. How to appropriately direct students' questions	Instructors Employers Total	40 (35%) 6 (33%) 46 (35%)	40 (35%) 8 (44%) 48 (36%)	30 (26%) 3 (17%) 33 (25%)	3 (3%) 1 (6%) 4 (3%)	1 (1%) 0 1 (1%)	114 18 132	1.563	4	.815
42. How to judge the adequacy of instructional questions	Instructors Employers Total	43 (37%) 6 (33%) 49 (37%)	42 (37%) 8 (44%) 50 (38%)	24 (21%) 3 (17%) 27 (20%)	5 (4%) 1 (6%) 6 (4%)	1 (1%) 0 1 (1%)	115 18 133	.672	4	.955

Table 4.32 Means and Standard Deviations of Responses Made by Instructors and Employers in the Questioning Skills and Techniques Section of Questionnaire.

Group	N	Mean	SD
Instructors	114	1.9320	.8196
Employers	18	1.9444	.7885
Total	132	1.9337	.8125

Table 4.33 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Questioning Skills and Techniques

Source	SS	*df*	MS	F	p
Between Groups	2.401E-03	1	2.401E-03	.004	.952
Within Groups	86.480	130	.665		
Total	86.482	131			

Preparing Evaluation Reports

The ninth, and final, section of the questionnaire was concerned with the area of preparing evaluation reports, as it relates to pre-service teacher training for post-secondary instructors, and contained two items. The correlation coefficients, means, and standard deviations for the two items were used to calculate the reliability coefficient. Table 4.34 contains a correlation matrix of the two items. The overall Cronbach's alpha reliability coefficient of .8499 gave evidence that these items were acceptable. Therefore, both items were used to investigate the views of both instructors and employers regarding the importance of pre-service teacher training for post-secondary instructors in the area of preparing evaluation reports.

Table 4.34 Correlation Matrix for the Views of Instructors and Employers Regarding the Importance of Pre-Service Teacher Training in Preparing Evaluation Reports (n = 132)

	Q44	Q45
Q44	1.0000	
Q45	.7442	1.0000
X	2.3030	2.0606
SD	1.1454	1.0171

Alpha Reliability = .8499

The two items in the section were then analyzed individually for the frequency and percentage of each possible response. The results were then cross tabulated, instructors by employers, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers and to ascertain if there were any significant differences in their views per item. The analysis indicated that there were no significant differences (X^2, $p>.05$) between the responses made by instructors and employers. Table 4.35 contains the cross tabulation and chi-square results for the two items in this section.

The means and standard deviations for responses made by both instructors and employers were calculated for the Preparing Evaluation Reports section as a whole, the results of which are contained in Table 4.36. This was done to obtain an idea of the views of both groups towards the importance of pre-service teacher training in preparing evaluation reports. The means indicated that both instructors and employers viewed pre-service training in preparing evaluation reports as having importance for instructors to have acquired with employers attributing slightly more importance to the items in this area.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the two groups, instructors and employers, with regards to their views

on the importance of pre-service teacher training in preparing evaluation reports. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.37. This analysis indicated that there was no significant difference (p =.658) between the two groups.

Item 46 on the questionnaire asked respondents to describe any other aspects of preparing evaluation reports they felt were important to have in pre-service teacher training but were not covered in the Likert-type items. Again, no employers commented on this item, and only three instructors did so. The three comments were varied but, as in previous items, one individual expressed the view that preparing evaluation reports was "yet again... a natural occurance (sic)", a view that was contrary to the overall views of post-secondary instructors and employers. Appendix E contains these comments.

Table 4.35 Cross Tabulation (Instructors and Employers) and Chi-Square Results for Preparing Evaluation Reports Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Group	VI	2	3	4	NI	Total	Value	*df*	Sig.
44. How to prepare students' final course marks	Instructors	34 (30%)	32 (28%)	30 (26%)	12 (11%)	6 (5%)	114	8.767	4	.067
	Employers	4 (22%)	11 (61%)	1 (5.6%)	1 (5.6%)	1 (5.6%)	18			
	Total	38 (29%)	43 (33%)	31 (23%)	13 (10%)	7 (5%)	132			
45. How to evaluate and make appropriate revisions and changes to existing course material	Instructors	42 (37%)	37 (33%)	24 (21%)	8 (7%)	3 (3%)	114	3.952	4	.413
	Employers	4 (22%)	10 (56%)	3 (17%)	1 (6%)	0	18			
	Total	46 (35%)	47 (36%)	27 (20%)	9 (7%)	3 (2%)	132			

Table 4.36 Means and Standard Deviations of Responses Made by Instructors and Employers in the Preparing Evaluation Reports Section of Questionnaire.

Group	N	Mean	SD
Instructors	114	2.1974	1.0446
Employers	18	2.0833	.7717
Total	132	2.1818	1.0100

Table 4.37 Analysis of Variance for the Views of Instructors and Employers Regarding the Importance of Pre-Service Training in Preparing Evaluation Reports

Source	SS	*df*	MS	F	p
Between Groups	.202	1	.202	.197	.658
Within Groups	133.434	130	1.026		
Total	133.636	131			

Other Areas of Pre-Service Training

Item 47 on the questionnaire asked respondents to describe any other areas of teacher training they felt should be included in pre-service teacher training for post-secondary instructors. There were many varied comments made by both instructors and employers for this item. However, overall, there appeared to be four major themes running through the comments:

1. the need for training in the area of teaching adult learners;
2. the need for training in how to facilitate adult learners who have learning disabilities;
3. the need for teaching internships and mentor programs for post-secondary instructors; and
4. the need for the development of short teacher training programs that could be offered "on-site".

Appendix E contains these comments.

Research Question 2

The second research question was: Are there any differences between the four geographical sectors in the views of both instructors and employers (combined) with regards to the importance of pre-service teacher training for post-secondary instructors?

The four geographical sectors were those commonly used to identify the geographical areas of the Province:

1. East (Avalon / Bonavista / Burin Peninsulas)
2. Central (Gander to Grand Falls-Windsor)
3. West (Corner Brook to Port aux Basques)
4. North (Northern Peninsula and Labrador)

In order to address this question, the same nine sections of the questionnaire were used, but were analyzed according to geographical sector. Again, each of the nine sections were investigated separately.

Teaching Methods

Each of the five items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible

response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. Items two ($X^2 = 21.960$, $p<.05$), three ($X^2 = 22.911$, $p<.05$), and five ($X^2 = 26.487$, $p<.05$) revealed significant differences between the views of instructors and employers residing in different geographical sectors. Table 4.38 contains the cross tabulation and chi-square results for all five items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Teaching Methods section as a whole, the results of which are contained in Table 4.39. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in teaching methods. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in teaching methods as having importance for instructors to have acquired with the north sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

Table 4.38 Cross Tabulation by Geographical Sector and Chi-Square Results for Teaching Methods Section

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
1. How to implement a variety of standard teaching methods.	East	46 (55%)	26 (31%)	7 (8%)	3 (4%)	1 (1%)	83	19.822	12	.071
	Central	15 (60%)	6 (24%)	4 (16%)	0	0	25			
	West	8 (40%)	3 (15%)	8 (40%)	1 (5%)	0	20			
	North	1 (25%)	3 (75%)	0	0	0	4			
	Total	70 (53%)	38 (29%)	19 (14%)	4 (3%)	1(1%)	132			
2. How to manage group dynamics associated with each teaching method.	East	29 (35%)	38 (46%)	12 (14%)	4 (5%)	0	83	21.960	12	.038
	Central	11 (44%)	6 (24%)	7 (28%)	0	1 (4%)	25			
	West	6 (30%)	3 (15%)	9 (45%)	2 (10%)	0	20			
	North	2 (50%)	2 (50%)	0	0	0	4			
	Total	48 (36%)	49 (37%)	28 (21%)	6 (5%)	1 (1%)	132			
3. How to use teaching methods that are appropriate to particular teaching situations.	East	39 (47%)	26 (31%)	12 (15%)	4 (5%)	2 (2%)	83	22.911	12	.028
	Central	15 (60%)	8 (32%)	2 (8%)	0	0	25			
	West	6 (30%)	2 (10%)	9 (45%)	3 (15%)	0	20			
	North	2 (50%)	2 (50%)	0	0	0	4			
	Total	62 (47%)	38 (29%)	23 (17%)	7 (5%)	2 (2%)	132			
4. How to judge the appropriateness of teaching methods for different situations.	East	35 (42%)	36 (43%)	8 (10%)	3 (4%)	1 (1%)	83	17.684	12	.126
	Central	15 (60%)	5 (20%)	3 (12%)	2 (8%)	0	25			
	West	6 (50%)	5 (25%)	7 (35%)	1 (5%)	1 (5%)	20			
	North	2 (50%)	2 (50%)	0	0	0	4			
	Total	58 (44%)	48 (36%)	18 (14%)	6 (4%)	2 (2%)	132			

Table 4.38 continued

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	*df*	Sig.
5. How to judge the effectiveness of selected teaching methods.	East	35 (43%)	33 (41%)	11 (14%)	1 (1%)	1 (1%)	81	26.487	12	.009
	Central	16 (64%)	6 (24%)	1 (4%)	1 (4%)	1 (4%)	25			
	West	7 (35%)	2 (10%)	9 (45%)	1 (5%)	1 (5%)	20			
	North	1 (25%)	3 (75%)	0	0	0	4			
	Total	59 (45%)	44 (34%)	21 (16%)	3 (2%)	3 (2%)	130			

Table 4.39 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Teaching Methods Section of Questionnaire.

Group	N	Mean	SD
East	81	1.7654	.7347
Central	25	1.6560	.6771
West	20	2.3100	.9700
North	4	1.6000	.4320
Total	130	1.8231	.7802

An analysis of variance with a level of significance at .05 was completed on the section to identify if there were any significant differences between the means of the four sectors: east, central, west, and north. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.40. This analysis indicated that there was a significant difference ($p = .019$) between the four sectors.

In order to determine which geographical sector means were significantly different from which other means the Scheffé test was used as "the Scheffé test is appropriate for making any and all possible comparisons involving a set of means" (Gay, 1992, p. 439). The results of this test indicated that the western sector was significantly different from both the east ($p = .045$) and central ($p =$

.045) sectors. The western sector mean indicated respondents in this sector attributed less importance on the items in the area of teaching methods in pre-service teacher training than the other sectors placed on it. There was no significant difference indicated between the east and central sectors, nor between the north and any other sector with regards to their views towards the importance of pre-service teacher training in the area of teaching methods.

Table 4.40 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in the Area of Teaching Methods

Source	SS	*df*	MS	F	p
Between Groups	5.908	3	1.969	3.417	.019
Within Groups	72.623	126	.576		
Total	78.531	129			

Use of Instructional Media

Each of the four items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. Item ten was the only item to reveal a significant difference (X^2 = 23.723, $p<.05$) between the views of instructors and employers residing in different geographical sectors. Table 4.41 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Use of Instructional Media section as a whole, the results of which are contained in Table 4.42. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in the use of instructional media. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in teaching methods as having importance for

instructors to have acquired with the central sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.43. This analysis indicated that there was no significant difference ($p = .183$) between the four geographical sectors with regards to their views towards the importance of pre-service teacher training in the area of the use of instructional media despite the significant difference found in item ten.

Table 4.41 Cross Tabulation by Geographical Sector and Chi-Square Results for Use of Instructional Media

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	*df*	Sig.
7. How to properly use instructional media and hardware	East	30 (36%)	26 (31%)	17 (20%)	7 (8%)	4 (5%)	84	9.297	12	.677
	Central	11 (44%)	7 (28%)	6 (24%)	0	1 (4%)	25			
	West	4 (20%)	5 (25%)	6 (30%)	4 (20%)	1 (5%)	20			
	North	1 (25%)	1 (25%)	1 (25%)	1 (25%)	0	4			
	Total	46 (35%)	39 (29%)	30 (23%)	12 (9%)	6 (5%)	133			
8. How to trouble-shoot instructional equipment, such as overhead projectors and computers, and other simple problems	East	21 (25%)	23 (27%)	28 (33%)	9 (11%)	3 (4%)	84	6.982	12	.859
	Central	6 (24%)	4 (16%)	12 (48%)	2 (8%)	1 (4%)	25			
	West	3 (15%)	4 (20%)	7 (35%)	5 (25%)	1 (5%)	20			
	North	1 (25%)	1 (25%)	1 (25%)	1 (25%)	0	4			
	Total	31 (23%)	32 (24%)	48 (36%)	17 (13%)	5 (4%)	133			
9. How to substitute for, add to, switch, or create instructional media that may be required	East	16 (19%)	34 (41%)	28 (33%)	4 (5%)	2 (2%)	84	17.584	12	.129
	Central	8 (32%)	7 (28%)	6 (24%)	2 (8%)	2 (8%)	25			
	West	4 (20%)	3 (15%)	8 (40%)	5 (25%)	0	20			
	North	1 (25%)	1 (25%)	2 (50%)	0	0	4			
	Total	29 (22%)	45 (34%)	44 (33%)	11 (8%)	4 (3%)	133			
10. How to judge whether instructional media has been effectively used	East	19 (23%)	45 (54%)	14 (17%)	4 (5%)	2 (2%)	84	23.723	12	.022
	Central	10 (40%)	7 (28%)	5 (20%)	2 (8%)	1 (4%)	25			
	West	5 (25%)	5 (25%)	4 (20%)	6 (30%)	0	20			
	North	1 (25%)	0	2 (50%)	1 (25%)	0	4			
	Total	35 (26%)	57 (43%)	25 (19%)	13 (10%)	3 (2%)	133			

Table 4.42 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Use of Instructional Media Section of Questionnaire

Group	N	Mean	SD
East	84	2.2440	.7924
Central	25	2.2100	.8800
West	20	2.6875	1.0159
North	4	2.5000	1.1726
Total	133	2.3120	.8619

Table 4.43 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in the Use of Instructional Media

Source	SS	*df*	MS	F	p
Between Groups	3.609	3	1.203	1.643	.183
Within Groups	94.441	129	.732		
Total	98.051	132			

Lesson Presentation Skills

Each of the four items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. All four items indicated that there were significant differences (X^2, $p<.05$) in the views of instructors and employers between the geographical sectors. Table 4.44 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Lesson Presentation Skills section as a whole, the results of which are contained in Table 4.45. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in lesson presentation skills. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in lesson presentation skills as having importance for

instructors to have acquired with the east sector attributing slightly more importance to the items in this area and the north sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.46. This analysis indicated that there was a significant difference ($p = .003$) between the four geographical sectors. In order to determine which geographical sector means were significantly different from which other means the Scheffé test was used. The results of this test indicated that the west sector was significantly different ($p = .009$) from the east sector. There was no significant difference between the east and central sectors, nor between the north and any other sector with regards to their views towards the importance of pre-service teacher training in the area of lesson presentation skills.

Table 4.44 Cross Tabulation by Geographical Sector and Chi-Square Results for Lesson Presentation Skills

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
12. How to use a teaching voice effectively	East	36 (43%)	22 (26%)	19 (23%)	5 (6%)	2 (2%)	84	24.583	12	.017
	Central	10 (40%)	10 (40%)	3 (12%)	2 (8%)	0	25			
	West	5 (25%)	2 (10%)	9 (45%)	3 (15%)	1 (5%)	20			
	North	0	0	4 (100%)	0	0	4			
	Total	51 (38%)	34 (26%)	35 (26%)	10 (8%)	3 (3%)	133			
13. How to use eye contact effectively	East	39 (46%)	24 (29%)	19 (23%)	1 (1%)	1 (1%)	84	24.837	12	.016
	Central	9 (38%)	9 (38%)	4 (17%)	2 (8%)	0	24			
	West	2 (10%)	5 (25%)	10 (50%)	5 (15%)	0	20			
	North	1 (25%)	0	3 (75%)	0	0	4			
	Total	51 (39%)	38 (29%)	36 (27%)	6 (5%)	1 (1%)	132			
14. How to effectively organize lesson content	East	60 (71%)	19 (23%)	5 (6%)	0	0	84	27.649	12	.006
	Central	18 (72%)	4 (16%)	2 (8%)	0	1 (4%)	25			
	West	11 (55%)	3 (15%)	4 (20%)	2 (10%)	0	20			
	North	1 (25%)	3 (75%)	0	0	0	4			
	Total	90 (68%)	29 (22%)	11 (8%)	2 (2%)	1 (1%)	133			
15. How to effectively organize course content	East	60 (71%)	18 (21%)	6 (7%)	0	0	84	24.129	12	.020
	Central	17 (68%)	6 (24%)	1 (4%)	0	1 (4%)	25			
	West	11 (55%)	3 (15%)	4 (20%)	2 (10%)	0	20			
	North	1 (25%)	2 (50%)	1 (25%)	0	0	4			
	Total	89 (67%)	29 (22%)	12 (9%)	2 (2%)	1 (1%)	133			

Table 4.45 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Lesson Presentation Skills Section of Questionnaire

Group	N	Mean	SD
East	84	1.6280	.6465
Central	24	1.6979	.8340
West	20	2.2625	.9510
North	4	2.3125	.5543
Total	132	1.7576	.7648

Table 4.46 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Lesson Presentation Skills

Source	SS	*df*	MS	F	p
Between Groups	7.827	3	2.609	4.855	.003
Within Groups	68.790	128	.537		
Total	76.617	131			

Communication Skills

Each of the four items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. Item 19 was the only item that indicated that there was a significant difference ($X^2 = 21.375$, $p<.05$) in the views of instructors and employers between the geographical sectors. Table 4.47 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Communication Skills section as a whole, the results of which are contained in Table 4.48. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in communication skills. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in communication skills as having importance for instructors

to have acquired with the central sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.49. This analysis indicated that there was a significant difference ($p = .033$) between the four geographical sectors. In order to determine which geographical sector means were significantly different from which other means the Scheffé test was used. The results of this test indicated that the west sector was at the level of significance ($p = .051$) when compared with the east sector. There was no significant difference between the east and central sectors, nor between the north and any other sector with regards to their views towards the importance of pre-service teacher training in the area of communication skills.

Table 4.47 Cross Tabulation by Geographical Sector and Chi-Square Results for Communication Skills

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
17. How to use gestures, silence, movement, posture, space and props effectively	East	21 (25%)	30 (36%)	25 (30%)	7 (8%)	1 (1%)	84	14.637	12	.262
	Central	5 (20%)	10 (40%)	7 (28%)	2 (8%)	1 (4%)	25			
	West	2 (11%)	2 (11%)	12 (63%)	3 (16%)	0	19			
	North	0	2 (50%)	2 (50%)	0	0	4			
	Total	28 (21%)	44 (33%)	46 (35%)	12 (9%)	2 (2%)	132			
18. How to adapt verbal and nonverbal messages to provide instruction to those students who have special needs	East	35 (42%)	28 (33%)	19 (23%)	2 (2%)	0	84	8.584	9	.476
	Central	14 (56%)	5 (20%)	5 (20%)	1 (4%)	0	25			
	West	6 (30%)	5 (25%)	7 (35%)	2 (10%)	0	20			
	North	2 (50%)	2 (50%)	0	0	0	4			
	Total	57 (43%)	40 (30%)	31 (23%)	5 (4%)	0	133			
19. How to determine whether students understand teaching messages	East	41 (49%)	33 (39%)	7 (8%)	2 (2%)	1 (1%)	84	21.375	12	.045
	Central	12 (48%)	8 (32%)	4 (16%)	0	1 (4%)	25			
	West	5 (26%)	4 (21%)	8 (42%)	2 (11%)	0	19			
	North	2 (50%)	1 (25%)	1 (25%)	0	0	4			
	Total	60 (45%)	46 (35%)	20 (15%)	4 (3%)	2 (2%)	132			
20. How to use active listening techniques	East	36 (43%)	27 (32%)	18 (21%)	3 (4%)	0	84	15.097	9	.088
	Central	14 (58%)	6 (25%)	3 (13%)	1 (4%)	0	24			
	West	5 (26%)	3 (16%)	11 (58%)	0	0	19			
	North	2 (50%)	1 (25%)	1 (25%)	0	0	4			
	Total	57 (44%)	37 (28%)	33 (25%)	4 (3%)	0	131			

Table 4.48 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Communication Skills Section of Questionnaire

Group	N	Mean	SD
East	84	1.9107	.7471
Central	24	1.8438	.7968
West	19	2.4605	.8176
North	4	1.8750	.7217
Total	131	1.9771	.7835

Table 4.49 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Communication Skills

Source	SS	*df*	MS	F	p
Between Groups	5.279	3	1.760	2.999	.033
Within Groups	74.527	127	.587		
Total	79.806	130			

Positive Reinforcement and Motivating Skills

Each of the three items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. There were no significant differences (X^2, $p>.05$) found in the views of instructors and employers between the geographical sectors with regards to the importance of pre-service teacher training in the area of positive reinforcement and motivating skills. Table 4.50 contains the cross tabulation and chi-square results for all three items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Positive Reinforcement and Motivating Skills section as a whole, the results of which are contained in Table 4.51. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in positive reinforcement and motivating skills. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in positive reinforcement

and motivating skills as having importance for instructors to have acquired with the north sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.52. This analysis indicated that there was no significant difference ($p = .252$) between the four geographical sectors with regards to their views towards the importance of pre-service teacher training in the area of positive reinforcement and motivating skills.

Table 4.50 Cross Tabulation by Geographical Sector and Chi-Square Results for Positive Reinforcement and Motivating Skills

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	*df*	Sig.
22. How to match learning outcomes to the needs and goals of both the student and the school	East	34 (40%)	32 (38%)	15 (18%)	3 (4%)	0	84	9.744	9	.372
	Central	9 (36%)	10 (40%)	5 (20%)	1 (4%)	0	25			
	West	8 (40%)	4 (20%)	5 (25%)	3 (15%)	0	20			
	North	0	3 (75%)	1 (25%)	0	0	4			
	Total	51 (38%)	49 (37%)	26 (20%)	7 (5%)	0	133			
23. How to motivate students to learn a lesson	East	40 (48%)	27 (32%)	13 (16%)	3 (4%)	0	83	14.126	12	.293
	Central	14 (56%)	9 (36%)	0	1 (4%)	1 (4%)	25			
	West	6 (30%)	7 (35%)	5 (25%)	2 (10%)	0	20			
	North	2 (50%)	2 (50%)	0	0	0	4			
	Total	62 (47%)	45 (34%)	18 (14%)	6 (5%)	1 (1%)	132			
24. How to plan and deliberately use feedback and positive reinforcement during instruction	East	42 (51%)	24 (29%)	13 (16%)	4 (5%)	0	83	13.724	12	.319
	Central	11 (46%)	8 (33%)	4 (17%)	0	1 (4%)	24			
	West	5 (25%)	8 (40%)	4 (20%)	3 (15%)	0	20			
	North	2 (50%)	2 (50%)	0	0	0	4			
	Total	60 (46%)	42 (32%)	21 (16%)	7 (5%)	1(1%)	131			

Table 4.51 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Positive Reinforcement and Motivating Skills Section of Questionnaire

Group	N	Mean	SD
East	82	1.7886	.7654
Central	24	1.7917	.8154
West	20	2.1833	.9641
North	4	1.7500	.3191
Total	130	1.8487	.8039

Table 4.52 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Positive Reinforcement and Motivating Skills

Source	SS	*df*	MS	F	p
Between Groups	2.653	3	.884	1.380	.252
Within Groups	80.705	126	.641		
Total	83.358	129			

Managing the Learning Environment

Each of the six items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. Item 28 was the only item that indicated that there was a significant difference ($X^2 = 20.049$, $p<.05$) in the views of instructors and employers between the geographical sectors. Table 4.53 contains the cross tabulation and chi-square results for all six items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Managing the Learning Environment section as a whole, the results of which are contained in Table 4.54. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in managing the learning environment. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in managing the learning environment as having importance for instructors to have acquired with the

central sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.55. This analysis indicated that there was a significant difference ($p = .013$) between the four geographical sectors. In order to determine which geographical sector means were significantly different from which other means the Scheffé test was used. The results of this test indicated that the west sector was significantly different ($p = .015$) when compared with the central sector. There was no significant difference between the east and central sectors, nor between the north and any other sector with regards to their views towards the importance of pre-service teacher training in the area of managing the learning environment.

Table 4.53 Cross Tabulation by Geographical Sector and Chi-Square Results for Managing the Learning Environment

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
26. How to prepare the instructional site to support the instruction	East	12 (15%)	29 (35%)	28 (34%)	10 (12%)	3 (4%)	82	12.527	12	.404
	Central	7 (28%)	9 (36%)	4 (16%)	4 (16%)	1 (4%)	25			
	West	2 (10%)	4 (20%)	11 (55%)	2 (10%)	1 (5%)	20			
	North	0	1 (25%)	3 (75%)	0	0	4			
	Total	21 (16%)	43 (33%)	46 (35%)	16 (12%)	5 (4%)	131			
27. How to involve students in establishing a comfortable learning environment	East	21 (26%)	28 (35%)	27 (33%)	3 (4%)	2 (2%)	81	19.009	12	.088
	Central	15 (60%)	5 (20%)	3 (12%)	2 (8%)	0	25			
	West	4 (20%)	4 (20%)	10 (50%)	2 (10%)	0	20			
	North	1 (25%)	2 (50%)	1 (25%)	0	0	4			
	Total	41 (32%)	39 (30%)	41 (31%)	7 (5%)	2 (2%)	130			
28. How to manage the time that is required for each lesson	East	39 (48%)	32 (39%)	7 (8%)	4 (5%)	0	82	20.049	9	.018
	Central	12 (50%)	8 (33%)	2 (8%)	2 (8%)	0	24			
	West	7 (35%)	3 (15%)	8 (40%)	2 (10%)	0	20			
	North	1 (25%)	2 (50%)	0	1 (25%)	0	4			
	Total	59 (45%)	45 (35%)	17 (13%)	9 (7%)	0	130			

Table 4.53 continued

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
29. How to manage the time that is required for each course	East	43 (52%)	26 (32%)	10 (12%)	3 (4%)	0	82	19.019	12	.088
	Central	14 (56%)	8 (32%)	1 (4%)	2 (8%)	0	25			
	West	6 (30%)	5 (25%)	6 (30%)	2 (10%)	1 (5%)	20			
	North	1 (25%)	2 (50%)	0	1 (25%)	0	4			
	Total	64 (49%)	41 (31%)	17 (13%)	8 (6%)	1 (1%)	131			
30. How to manage students' interactions and participation in the class	East	33 (40%)	28 (34%)	17 (21%)	4 (5%)	0	82	13.107	9	.158
	Central	13 (52%)	9 (36%)	2 (8%)	1 (4%)	0	25			
	West	3 (15%)	8 (40%)	6 (30%)	3 (15%)	0	20			
	North	1 (25%)	3 (75%)	0	0	0	4			
	Total	50 (38%)	48 (37%)	25 (19%)	8 (6%)	0	131			
31. How to deal with those students who exhibit behaviour problems	East	44 (54%)	22 (27%)	10 (12%)	5 (6%)	0	81	13.626	9	.129
	Central	19 (76%)	4 (16%)	1 (4%)	1 (4%)	0	25			
	West	8 (42%)	3 (16%)	5 (26%)	3 (16%)	0	19			
	North	4 (100%)	0	0	0	0	4			
	Total	75 (58%)	29 (23%)	16 (12%)	9 (7%)	0	129			

Table 4.54 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Managing the Learning Environment Section of Questionnaire

Group	N	Mean	SD
East	80	1.9604	.7307
Central	24	1.7083	.7177
West	19	2.4649	.8706
North	4	2.0000	.6236
Total	127	1.9895	.7720

Table 4.55 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Managing the Learning Environment

Source	SS	*df*	MS	F	p
Between Groups	6.260	3	2.087	3.728	.013
Within Groups	68.837	123	.560		
Total	75.097	126			

Evaluating Student Performance

Each of the five items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. Item 33 was the only item that indicated that there was a significant difference ($X^2 = 20.682$, $p<.05$) in the views of instructors and employers between the geographical sectors. Table 4.56 contains the cross tabulation and chi-square results for all five items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Evaluating Student Performance section as a whole, the results of which are contained in Table 4.57. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in evaluating student performance. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in evaluating student performance as having importance for instructors to have acquired with the east

sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.58. This analysis indicated that there was a significant difference ($p = .050$) between the four geographical sectors. In order to determine which geographical sector means were significantly different from which other means the Scheffé test was used. The results of this test indicated that there were no significant differences between the four geographical sectors with regards to their views towards the importance of pre-service teacher training in the area of evaluating student performance. However, the west sector had a significance level of .059 when compared to the east sector.

Table 4.56 Cross Tabulation by Geographical Sector and Chi-Square Results for Evaluating Student Performance

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	*df*	Sig.
33. How to monitor student progress during instruction	East	33 (41%)	32 (40%)	15 (18%)	1 (1%)	0	81	20.682	9	.014
	Central	11 (44%)	10 (40%)	2 (8%)	2 (8%)	0	25			
	West	6 (30%)	4 (20%)	5 (25%)	5 (25%)	0	20			
	North	1 (25%)	2 (50%)	0	1 (25%)	0	4			
	Total	51 (39%)	48 (37%)	22 (17%)	9 (7%)	0	130			
34. How to prepare tests and other methods of evaluation	East	51 (62%)	21 (26%)	9 (11%)	1 (1%)	0	82	18.924	12	.090
	Central	15 (60%)	6 (24%)	1 (4%)	3 (12%)	0	25			
	West	8 (40%)	6 (30%)	4 (20%)	1 (5%)	1 (5%)	20			
	North	2 (50%)	1 (25%)	0	1 (25%)	0	4			
	Total	76 (58%)	34 (26%)	14 (11%)	6 (5%)	1 (1%)	131			
35. How to grade tests and other methods of evaluation	East	45 (55%)	24 (29%)	11 (13%)	1 (1%)	1 (1%)	82	14.288	12	.283
	Central	12 (48%)	7 (28%)	4 (16%)	2 (8%)	0	25			
	West	7 (35%)	5 (25%)	6 (30%)	1 (5%)	1 (5%)	20			
	North	2 (50%)	1 (25%)	0	1 (25%	0	4			
	Total	66 (50%)	37 (28%)	21 (16%)	5 (4%)	2 (2%)	131			

Table 4.56 continued

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
36. How to evaluate whether or not students have attained end-of-course objectives	East	46 (56%)	22 (27%)	11 (13%)	3 (4%)	0	82	18.331	12	.106
	Central	16 (64%)	5 (20%)	1 (4%)	3 (12%)	0	25			
	West	9 (45%)	3 (15%)	5 (25%)	2 (10%)	1 (5%)	20			
	North	2 (50%)	0	2 (50%)	0	0	4			
	Total	73 (56%)	30 (23%)	19 (14%)	8 (6%)	1 (1%)	131			
37. How to judge the adequacy of the evaluation method used	East	41 (50%)	23 (28%)	16 (20%)	2 (2%)	0	82	19.598	12	.075
	Central	9 (36%)	11 (44%)	2 (8%)	3 (12%)	0	25			
	West	7 (35%)	3 (15%)	7 (35%)	2 (10%)	1 (5%)	20			
	North	1 (25%)	2 (50%)	1 (25%)	0	0	4			
	Total	58 (44%)	39 (30%)	26 (20%)	7 (5%)	1 (1%)	131			

Table 4.57 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Evaluating Student Performance Section of Questionnaire

Group	N	Mean	SD
East	81	1.6741	.7060
Central	25	1.7840	.8523
West	20	2.2400	1.1137
North	4	2.0500	1.1475
Total	130	1.7938	.8364

Table 4.58 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Evaluating Student Performance

Source	SS	*df*	MS	F	p
Between Groups	5.408	3	1.803	2.678	.050
Within Groups	84.827	126	.673		
Total	90.235	129			

Questioning Skills and Techniques

Each of the four items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. There were no significant differences (X^2, $p>.05$) found in the views of instructors and employers between the geographical sectors with regards to the importance of pre-service teacher training in the area of questioning skills and techniques. Table 4.59 contains the cross tabulation and chi-square results for all four items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Questioning Skills and Techniques section as a whole, the results of which are contained in Table 4.60. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in questioning skills and techniques. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in questioning skills and

techniques as having importance for instructors to have acquired with the central sector attributing slightly more importance to the items in this area and the west sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.61. This analysis indicated that there was no significant difference ($p = .065$) between the four geographical sectors with regards to their views towards the importance of pre-service teacher training in the area of questioning skills and techniques.

Table 4.59 Cross Tabulation by Geographical Sector and Chi-Square Results for Questioning Skills and Techniques

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	df	Sig.
39. How to use appropriate question types and levels to enhance student learning	East	32 (38%)	35 (42%)	13 (15%)	3 (4%)	1 (1%)	82	11.595	12	.479
	Central	9 (36%)	9 (36%)	5 (20%)	1 (4%)	1 (4%)	25			
	West	5 (25%)	5 (25%)	8 (40%)	1 (5%)	1 (5%)	20			
	North	0	2 (50%)	2 (50%)	0	0	4			
	Total	46 (35%)	51 (38%)	28 (21%)	5 (4%)	3 (2%)	133			
40. How to determine if the students are understanding the lesson material by using appropriate questioning techniques	East	37 (44%)	36 (43%)	8 (9%)	3 (4%)	0	84	16.304	12	.178
	Central	14 (56%)	8 (32%)	2 (8%)	1 (4%)	0	25			
	West	5 (25%)	9 (45%)	4 (20%)	1 (5%)	1 (5%)	20			
	North	0	4 (100%)	0	0	0	4			
	Total	56 (42%)	57 (43%)	14 (10%)	5 (4%)	1 (1%)	133			
41. How to appropriately direct students' questions	East	29 (35%)	33 (40%)	19 (23%)	1 (1%)	1 (1%)	83	14.183	12	.289
	Central	11 (44%)	10 (40%)	3 (12%)	1 (4%)	0	25			
	West	5 (25%)	4 (20%)	9 (45%)	2 (10%)	0	20			
	North	1 (25%)	1 (25%)	2 (50%)	0	0	4			
	Total	46 (35%)	48 (36%)	33 (25%)	4 (3%)	1 (1%)	132			

Table 4.59 continued

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	**Sector**	**VI**	**2**	**3**	**4**	**NI**	**Total**	**Value**	***df***	**Sig.**
42. How to judge the adequacy of instructional questions	East	32 (38%)	35 (42%)	16 (19%)	1 (1%)	0	84	20.598	12	.057
	Central	11 (44%)	9 (36%)	2 (8%)	2 (8%)	1 (4%)	25			
	West	5 (25%)	5 (25%)	7 (35%)	3 (15%)	0	20			
	North	1 (25%)	1 (25%)	2 (50%)	0	0	4			
	Total	49 (37%)	50 (38%)	27 (20%)	6 (4%)	1 (1%)	133			

Table 4.60 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Questioning Skills and Techniques Section of Questionnaire

Group	N	Mean	SD
East	83	1.8494	.7376
Central	25	1.8300	.8377
West	20	2.3500	1.0046
North	4	2.2500	.6124
Total	132	1.9337	.8125

Table 4.61 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Questioning Skills and Techniques

Source	SS	*df*	MS	F	p
Between Groups	4.725	3	1.575	2.466	.065
Within Groups	81.757	128	.639		
Total	86.482	131			

Preparing Evaluation Reports

The two items in this section were analyzed individually for the frequency and percentage of each possible response made by instructors and employers residing in each of the four geographical sectors. The results were then cross tabulated, by geographical sector, and the chi-square test performed. This was done in order to compare the frequency with which each possible response was chosen by instructors and employers in each of the geographical sectors and to ascertain if there were any significant differences in their views per item. Item 45 indicated that there was a significant difference ($X^2 = 28.693$, $p<.05$) in the views of instructors and employers between the geographical sectors. Table 4.62 contains the cross tabulation and chi-square results for both items in this section.

The means and standard deviations for responses made by the instructors and employers in each geographical sector were calculated for the Preparing Evaluation Reports section as a whole, the results of which are contained in Table 4.63. This was done to obtain an idea of the views of instructors and employers residing in each of the four geographical sectors towards the importance of pre-service teacher training in preparing evaluation reports. The means indicated that instructors and employers in all four geographical sectors viewed pre-service training in preparing evaluation reports as having importance for instructors to have acquired with the central sector

attributing slightly more importance to the items in this area and the north sector slightly less importance.

An analysis of variance with a level of significance at .05 was completed on the section to identify if there was any significant difference between the means of the four geographical sectors. The mean for the section as a whole was calculated by adding each response in the section and dividing the total by the number of items. The results of this analysis are presented in Table 4.64. This analysis indicated that there was no significant difference ($p = .131$) between the four geographical sectors with regards to their views towards the importance of pre-service teacher training in the area of preparing evaluation reports despite the significant difference found in item 45.

Table 4.62 Cross Tabulation by Geographical Sector and Chi-Square Results for Preparing Evaluation Reports

How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas:		Frequency (%) (VI = Very Important, NI = Not Important)						Chi-Square Test		
Item	Sector	VI	2	3	4	NI	Total	Value	*df*	Sig.
44. How to prepare students' final course marks	East	25 (30%)	28 (34%)	20 (24%)	7 (8%)	3 (4%)	83	18.292	12	.107
	Central	8 (32%)	11 (44%)	3(12%)	1 (4%)	2 (8%)	25			
	West	5 (25%)	2 (10%)	7 (35%)	5 (25%)	1 (5%)	20			
	North	0	2 (50%)	1 (25%)	0	1 (25%)	4			
	Total	38 (29%)	43 (33%)	31 (23%)	13 (10%)	7 (5%)	132			
45. How to evaluate and make appropriate revisions and changes to existing course material	East	28 (34%)	32 (39%)	18 (22%)	5 (6%)	0	83	28.693	12	.004
	Central	12 (48%)	8 (32%)	2 (8%)	1 (4%)	2 (8%)	25			
	West	6 (30%)	4 (20%)	7 (35%)	3 (15%)	0	20			
	North	0	3 (75%)	0	0	1 (25%)	4			
	Total	46 (35%)	47 (36%)	27 (20%)	9 (7%)	3 (2%)	132			

Table 4.63 Means and Standard Deviations of Responses by Instructors and Employers According to Geographical Sector in the Preparing Evaluation Reports Section of Questionnaire

Group	N	Mean	SD
East	83	2.1084	.9141
Central	25	2.0200	1.1409
West	20	2.5500	1.0748
North	4	2.8750	1.4361
Total	132	2.1818	1.0100

Table 4.64 Analysis of Variance for the Views of Instructors and Employers According to Geographical Sector Regarding the Importance of Pre-Service Training in Preparing Evaluation Reports

Source	SS	*df*	MS	F	p
Between Groups	5.735	3	1.912	1.913	.131
Within Groups	127.902	128	.999		
Total	133.636	131			

Conclusion

There were two research questions for this study:

1. Are there any differences between the views of instructors and those of employers across the Province with regards to pre-service teacher training for post-secondary instructors?
2. Are there any differences between the four geographical sectors in the views of both instructors and employers (combined) with regards to the importance of pre-service teacher training for post-secondary instructors?

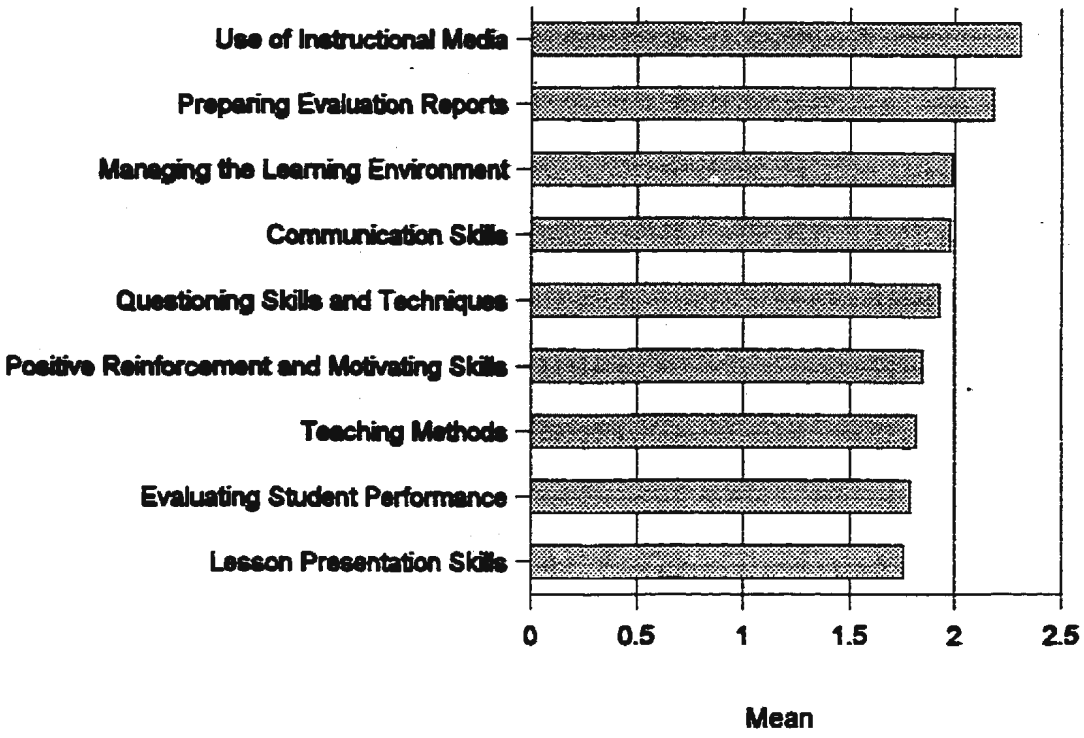
There were no significant differences found between the views of instructors and employers across the Province. Overall, it appeared that both instructors and employers across the Province have the view that pre-service teacher training for post-secondary instructors has importance. On a scale from one to five where one was "very important" and five "not important", the means for each group were consistently <2.5, which indicated a positive view towards the importance of pre-service teacher training for post-secondary instructors.

The means for each section of the questionnaire were slightly different and suggested that certain areas of pre-service training were considered more important than others. Starting with the area given the most importance by both instructors and employers across the Province, and listing them in descending order, the areas of pre-service teacher training and their means were:

1. Lesson Presentation Skills (X=1.76)
2. Evaluating Student Performance (X=1.79)
3. Teaching Methods (X=1.82)
4. Positive Reinforcement and Motivating Skills (X=1.85)
5. Questioning Skills and Techniques (X=1.93)
6. Communication Skills (X=1.98)
7. Managing the Learning Environment (X=1.99)
8. Preparing Evaluation Reports (X=2.18)
9. Use of Instructional Media (X=2.31)

Figure 4.1 depicts the variations in means for each area of training with the area being viewed as most important on the bottom.

Figure 4.1 Areas of Pre-Service Training and Means



Note that a lower mean indicates higher importance placed on the pre-service training area.

There were significant differences, however, in the views of instructors and employers towards pre-service teacher training for post-secondary instructors between the different geographical sectors, with the west sector generally placing less importance on pre-service teacher training than either the east, central, or north sectors. The five areas of pre-service training where significant differences were indicated were:

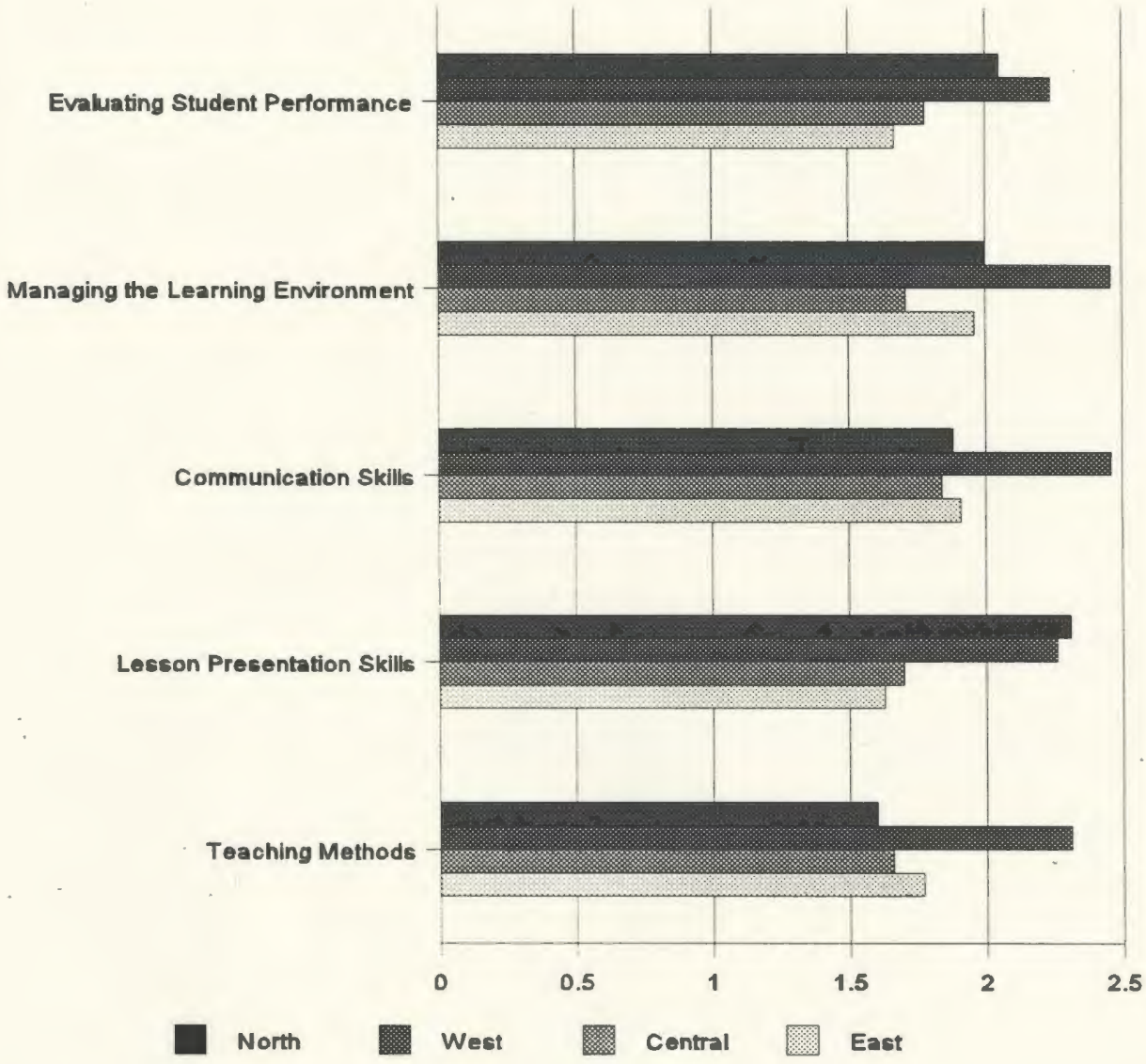
1. Teaching Methods (p=.019)
2. Lesson Presentation Skills (p=.003)
3. Communication Skills (p=.033)
4. Managing the Learning Environment (p=.013)
5. Evaluating Student Performance (p=.050)

The other four areas of pre-service training displayed no significant differences between the views of instructors and employers residing in the different geographical sectors. Figure 4.2 is a graphical representation of the variations in means for the four geographical sectors in each of the pre-service training areas where a significant difference existed.

Also found, within the demographic profile of instructors, was that although 34 percent (n=38) of the instructors surveyed had been teaching for four to five years, 81 percent (n=90) of instructors did not have a Newfoundland Technical and Vocational Instructor's Certificate.

The demographic profile also indicated that 62 percent (n=71) of the instructors surveyed were not involved in any program of study. This included programs to either upgrade their content knowledge or teacher training. As well, of the 41 instructors who had not had any prior teacher training in the four areas listed on the questionnaire, 19 of those still had not undergone any training since their employment.

Figure 4.2 Means of Geographical Sectors in Pre-Service Training Areas Where a Significant Difference Existed



Note that a lower mean indicates higher importance placed on the pre-service training area.

The anecdotal data presented many and varied views of instructors and employers towards the importance of pre-service teacher training for post-secondary instructors, as well as what types of training may be important, and, in some instances, not important. For the individual questionnaire sections, there generally was no common theme among the comments made. However, for item 47, which asked if there were any other areas of teacher training the respondent felt should be included in pre-service teacher training for post-secondary instructors, there appeared to be four major themes emerging from the comments:

1. the need for training in the area of teaching adult learners;
2. the need for training in how to facilitate adult learners who have learning disabilities;
3. the need for teaching internships and mentor programs for post-secondary instructors; and
4. the need for the development of short teacher training programs that could be offered "on-site".

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The stated purpose of this study was to examine two different groups employed in the post-secondary education sector in Newfoundland and Labrador regarding their views of the importance of pre-service teacher preparation for post-secondary instructors prior to the commencement of teaching. As well, the study examined the views of those same groups according to geographical sector: east, central, west, or north. The study also sought to identify the nature of pre-service training, if any, that was deemed important by these same groups. The two groups identified for this study were as follows:

1. instructors who had been teaching in the post-secondary sector for five years or less; and
2. employers; those who had jurisdiction over the hiring of instructors in both public and private institutions.

Methods Used in this Study

The population of this study was all 1152 post-secondary instructors in Newfoundland and Labrador (Government of Newfoundland and Labrador, 1998, p. 89); this included both public and private college instructors. Also included in the study population were all 83 private college employers and public college

campus/site administrators (Government of Newfoundland and Labrador, 1998, p. 3) who oversaw the hiring of those instructors.

A geographical cluster method was used to select the sample surveyed from the above population. It commenced with the designation of four geographical sectors of the Province into which the clusters were placed. The four geographical sectors were those commonly used to identify the geographical sectors of the Province and was similar to those practices typically used when identifying any differences due to geographical location:

1. East (Avalon / Bonavista / Burin Peninsulas)
2. Central (Gander to Grand Falls-Windsor)
3. West (Corner Brook to Port aux Basques)
4. North (Northern Peninsula and Labrador)

In developing the survey, it was decided that approximately 20 percent of those involved in teaching in a college would constitute an acceptable sample size from which both instructors and employer sub-samples were drawn. This resulted in identifying 235 college instructors.

Since individual instructors were not readily identifiable, it was decided that a cluster sampling method would use the colleges as the basis for the cluster. In order to ensure that the sample population, which would be dispersed across the four geographical sectors, would still reflect percentages similar to those in the total population, clusters, or colleges, were then randomly

drawn until the numbers of instructors approximated the percentages of the total college population in that geographical sector as listed in the Government of Newfoundland and Labrador, Department of Education Listing of Public and Private Post-Secondary Institutions (1997-98).

As the number of instructors per college varied, the colleges were, therefore, assigned a number and were then subjected to a random selection process using a table of random numbers until the appropriate number of instructors for each sector was obtained. The resulting sample of instructors, according to geographical sector, was as follows:

1. the east sector had a sample size of 58 percent (n=135) of the total sample (235);
2. the central sector a size of 22 percent (n=51);
3. the west sector a size of 13 percent (n=34); and
4. the north sector a size of 7 percent (n=15).

For the employer survey, it was decided that each college that was randomly selected using the process described above would also receive an employer survey. The resulting sample of employers, which totaled 31, corresponded to a sample size of approximately 37 percent of the total population (n=83) of employers and was dispersed across the geographical sectors in the following way:

1. East Sector - 17 employers;

2. Central Sector - 7 employers;

3. West Sector - 4 employers; and

4. North Sector - 3 employers.

A questionnaire was the survey instrument. The instructor questionnaire contained a total of 53 items and the employer questionnaire a total of 47. The questionnaires were composed of ten open-ended items, six closed items that elicited demographic information (on the instructor questionnaire only), and a series of 37 items that asked the individual to respond on a five-point Likert-type scale.

The 37 items were broken down into nine major sections, or areas of teacher training, which had been identified through the literature review. The nine sections were as follows:

1. Teaching Methods;

2. Use of Instructional Media;

3. Lesson Presentation Skills;

4. Communication Skills;

5. Positive Reinforcement and Motivating Skills;

6. Managing the Learning Environment;

7. Evaluating Student Performance;

8. Questioning Skills and Techniques; and

9. Preparing Evaluation Reports.

Included at the end of the questionnaire was an option for a voluntary follow-up in-depth interview. This last option was included for any needed clarification among participants and to be used in the event of a poor questionnaire return rate. The personal interviews, however, were neither requested nor evoked by the researcher.

The mail-out, consisting of a cover letter, questionnaire, and a self-addressed stamped envelope, were either mailed, or hand delivered to each of the selected survey colleges on September 14, 1998. The deadline for return was October 5, 1998. A follow-up telephone call to remind the colleges to return the questionnaires was made two weeks after the initial mail-out. The day following the initial deadline, an additional telephone call to each college contact was made to further encourage the instructors and employers who had not yet returned the questionnaires to do so. A revised return date of October 19, 1998 was established. The total return of instructor surveys was 116 (49%) and employer surveys was 18 (58%). This resulted in a combined (instructors and employers) return of 134 (50%) surveys.

Using the Statistical Package for Social Sciences (SPSS) version 8.0 for Windows (Norusis, 1998), a statistical analysis was completed on all Likert-type items and closed-ended items. Using Cronbach's Alpha and the chi-square test, an effort was made to see if "non-respondents" would have had an effect on the overall results had they responded. These methods were applied to the surveys

received prior to the deadline and those received after the deadline following prompting and reminders, with the idea that the "late responders" would be similar to "non-responders". The two groups were then cross-tabulated for any significant variations in responses. A significance level of .05 was chosen. It was determined that there were no significant differences in reliability between "on-time responders" and "late responders", and with the exception of one item, item 22, which had a significance level at .05, no significant differences on the chi-square test.

Applying Cronbach's Alpha, the internal reliability of each of the nine major sections that contained Likert-type items was analyzed. A reliability coefficient of .70 was chosen to signify internal reliability within the sections. All nine sections produced a reliability coefficient >.70. Following this, the Likert-type items on both the instructor and employer surveys were analyzed by calculating frequency distributions, means, and standard deviations for each response. One-way analysis of variance (ANOVA) and the chi-square test were applied to the two main groups being studied, that is, the instructors and the employers, and the sub-groups, that is, the geographical sectors, to determine if a significant difference existed between the groups and sub-groups. A significance level of .05 was used.

Descriptive statistics (frequencies and means) were generated from items 48 to 53 on the instructor survey. These were then used to compile a profile of the instructor survey respondents.

The data was analyzed using the following independent variables:

1. instructor;
2. employer; and
3. geographical location (east, central, west, or north) of instructors and employers.

The dependent variable for all analyses was the respondents' views regarding the importance of pre-service teacher training for post-secondary instructors.

The study was carried out in all four geographical sectors of the Province. A total of 26 colleges, which included 116 instructors and 18 employers, participated in the study.

Findings and their Implications

There were two research questions for this study:

1. Are there any differences between the views of instructors and those of employers across the Province with regards to the importance of pre-service teacher training for post-secondary instructors?

2. Are there any differences between the four geographical sectors in the views of both instructors and employers (combined) with regards to the importance of pre-service teacher training for post-secondary instructors?

There were no significant differences found between the views of those instructors and employers who participated in the study. Overall, it appeared that both instructors and employers, who reside in the Province and participated in the study, had the view that pre-service teacher training for post-secondary instructors has importance. On a scale from one to five, where one was "very important" and five "not important", the means for each group, instructors and employers, were consistently <2.5, which indicated a positive view towards the importance of pre-service teacher training for post-secondary instructors.

The implication of this finding is that some type of formal requirement for post-secondary instructors to have pre-service teacher training, prior to the commencement of classroom teaching, is viewed as beneficial.

The means for each section of the questionnaire differed to indicate some areas of pre-service training were considered more important than others. These are listed below in order of the importance attributed them, using the mean as the basis for ordering:

1. Lesson Presentation Skills (X=1.76)
2. Evaluating Student Performance (X=1.79)

3. Teaching Methods (X=1.82)
4. Positive Reinforcement and Motivating Skills (X=1.85)
5. Questioning Skills and Techniques (X=1.93)
6. Communication Skills (X=1.98)
7. Managing the Learning Environment (X=1.99)
8. Preparing Evaluation Reports (X=2.18)
9. Use of Instructional Media (X=2.31)

From these findings, it would appear that there is a high level of consensus on the importance of these training areas and that they should be addressed in a pre-service training program for post-secondary instructors. It follows that they should be made a part of core and formal requirements used to obtain entry into the field of post-secondary instruction.

There was a significant difference, however, in the views of instructors and employers (combined) from the different geographical sectors towards pre-service teacher training for post-secondary instructors. The west sector instructors and employers generally placed less importance on pre-service teacher training than their counterparts in the east, central and north sectors. The five areas of pre-service training where a significant difference was found are as follows:

1. Teaching Methods (p=.019)
2. Lesson Presentation Skills (p=.003)

3. Communication Skills (p=.033)

4. Managing the Learning Environment (p=.013)

5. Evaluating Student Performance (p=.050)

The other four areas of pre-service training, Positive Reinforcement and Motivating Skills, Questioning Skills and Techniques, Preparing Evaluation Reports, and Use of Instructional Media, displayed no significant difference on the variable of geographical location.

In reviewing these findings, although pre-service teacher training was viewed as having importance by participants as a whole, it can be speculated that the sector differences may be attributable to conditions such as difficulty in accessing teacher preparation courses due to remoteness or other factors, and a possibly less stringent application of regulation.

It was generally agreed upon in the literature (Stone, 1990; Boyer, 1991; Osgood and York, 1992; Tsunoda (1992); Kort, 1992; Davis, 1993; Dallat and Rae, 1993; International Board of Standards for Training, Performance, and Instruction, 1993; Wolverton, 1994; Ashcroft, 1995; and Shannon, Twale, and Moore, 1998) that the level of quality in the classroom is linked to the amount of teacher preparation. The research literature indicated that poor quality instruction may be attributed to a lack of teacher preparation. Therefore, the implication of these findings is that there may be instability regarding the quality of instruction depending upon in which geographical sector a student goes to

school. As a result of this, it would appear that more teacher preparation courses should be provided to these remote areas.

Within the demographic profile of instructors, it was found that although 38 instructors, 34% of those surveyed, had been teaching for four to five years, 90 instructors, 81%, did not have a Newfoundland Technical and Vocational Instructor's Certificate. Albeit Policy Document #6 (Government of Newfoundland and Labrador, 1989) allows instructors to teach for a maximum of four years (three years plus a one year extension with extenuating circumstances and written approval from the Minister of Education) before being required to have this Certificate, it appeared that this policy was not being strictly enforced. This conclusion was based on the data which indicated that the percentage of those instructor respondents without a Newfoundland Technical and Vocational Instructor's Certificate, 81%, exceeded the expected percentage. At the least, the 34% of respondents who had been teaching for four to five years should have had their Certificate. This also raises questions regarding the overall quality of instruction received by students who attend colleges in which instructors continue to teach in their classrooms without obtaining the required, and in the case of this study recommended, teacher training .

Further, the demographic profile indicated that 71 (62%) of the instructors surveyed were not involved in any program of study, that included programs to either upgrade their content knowledge or teacher training. As well, of the 41

instructors who had not had any prior teacher training in the four areas listed on the questionnaire, 19 had still not undergone any teacher training in those four areas since their employment. The findings that college instructors generally do not participate actively in professional upgrading was consistent with those findings of Boice (1991), Wise (1991), and Berry, Filbeck, Rothstein-Fisch, and Saltman (1991). The literature review revealed that the overall attitude of instructors towards teacher training was generally poor, as "most people resist being taught what they already think they know" (Eble, 1983, p. 134). As the literature has also linked teacher training to the quality of instruction, the implication from the findings of this study is that there is the potential for less quality classroom instruction for Newfoundland and Labrador's post-secondary students if there continues to be instructors who are not trained to teach and who are not attempting to upgrade their own personal and professional skills in their area of specialty.

Conclusions and Recommendations

The conclusions that can be drawn from this study and subsequent recommendations are:

1. Pre-service teacher training for post-secondary instructors has importance, therefore, it is recommended that instructors obtain formal

training in the following core areas, in order of importance, before entering the classroom:

a. lesson presentation skills;

b. evaluating student performance;

c. teaching methods;

d. positive reinforcement and motivating skills;

e. questioning skills and techniques;

f. communication skills;

g. managing the learning environment;

h. preparing evaluation reports; and

I. use of instructional media.

Research in exploring the ways and means of achieving or deploying teacher training in these areas needs to be conducted. As well, further research into the ways and means of deploying teacher training to remote areas of the Province needs to be conducted.

2. Although employers and instructors across the Province view pre-service teacher training for post-secondary instructors as having importance, there existed a significant difference in the views depending upon in which geographical area the instructors and employers resided. The instructors and employers in the west sector generally placed less importance on pre-service teacher training than their counterparts in the

east, central and north sectors. It is, therefore, recommended that further research into the reasons why this disparity exists be conducted. As well, research into whether or not there is a difference in the quality of instruction between geographical sectors should be conducted.

3. Even though Policy Document #6 is in place, the majority (81%) of those instructors surveyed were teaching without a Newfoundland Technical and Vocational Instructor's Certificate, some even after the maximum four years had elapsed. It would appear that compliance with Policy Document #6 is not working to the benefit of the post-secondary school system. This is an indication that Policy Document #6 is not adequate to ensure post-secondary instructor qualification since it appears that it is not being enforced and, therefore, not doing what it was setup to do: ensure that post-secondary instructors achieve the teacher training they require. As the general literature has pointed out, and the data from this study supports, post-secondary instructors are neither enthusiastic about nor actively involved in obtaining teacher training after employment in the post-secondary system has already commenced. It is, therefore, recommended that policy regarding the minimum teacher qualification requirements for entry into the field, prior to entering the classroom, be reviewed.

Alternately, and in this regard, it would appear that means to promote voluntary compliance may be beneficial. Perhaps the creation of a professional association, along the lines of the Newfoundland and Labrador Teacher's Association, would be effective in this regard in that it would act as a voice in the regulation of licensing procedures and requirements for post-secondary instructors. Such an association could also have an active role in advising on professional development training needs for post-secondary instructors. It would appear that dialogue regarding voluntary compliance, through the development of a professional association, or enforced compliance, through the Department of Education, is needed in relation to post-secondary education and its educators.

4. Monitoring, at the level of the Department of Education, to gather a perspective on the level of adherence to Policy Document #6 would appear to be propitious. It is, therefore, recommended that further research into means to ensure adequate monitoring of post-secondary instructors in Newfoundland and Labrador be conducted. As well, research to determine why instructors are not availing themselves of teacher training should be conducted.

5. The majority (62%) of instructors surveyed were not actively taking part in any type of professional training or upgrading, be it teacher training or

subject area training. It is, therefore, recommended that colleges explore the development of in-house professional development programs that include teacher training as well as upgrades in subject matter knowledge. This last recommendation could be enhanced by collaboration with Memorial University of Newfoundland's Faculty of Education, the Department of Education, and a post-secondary instructor's professional association.

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Appendix A

Table 3.1: Sector Sample Breakdown

Table 3.1 Sector breakdown of instructor sample. Total sample size n=235.

Sector	Number of Colleges(%)	Sample Size from Sector%
East	48 (58%)	135 (~58%)
Central	19 (22%)	51 (~22%)
West	10 (13%)	34 (~13%)
North	6 (7%)	15 (~7%)
Total	83 (100%)	235 (100%)

Appendix B

Permission to Use Survey Instrument of Osgood and York (1992)

NMTC

Northern Maine Technical College

33 Edgemont Drive Presque Isle, Maine 04769 (207) 768-2700
FAX (207) 768-2831

TELEPHONE: 709-781-4202
FAX: c/o Terry Fleet
709-729-6046

June 30, 1998

Ms. Beth Fleet
P.O. Box 258
Paradise, Newfoundland
CANADA
A1L 1C6

Dear Ms. Fleet:

You have our written permission to use our publication--FACULTY TEACHER TRAINING AT THE POSTSECONDARY LEVEL (ED362 511) for your research project.

We look forward to seeing your finished project. Good Luck!!!

Sincerely,

Ann P. Osgood

Paula A. York

/afo

/facultyteachertraining

Appendix C

Instructor Survey Cover Letter and Questionnaire

Dear Colleague:

I am a graduate student in the Faculty of Education at Memorial University conducting thesis research of instructors' and employers' views regarding pre-service teacher training for post-secondary instructors. This is being done to complete my master's degree requirements.

As your position in the post-secondary education industry has provided you with vital information that can be useful in my study, I am sending you a questionnaire that will require a few minutes of your time to complete. Your candid responses to the survey items would provide me with the critical views of instructors regarding the various aspects of teacher training in relation to what they may require prior to entrance into classroom teaching.

Participation in the study is voluntary. You are assured that all information gathered in this study will remain strictly confidential and at no time will individuals or institutions be identified or connected with any particular information. To ensure that the design of the study has been appropriately developed and conforms to all ethical guidelines it has been submitted and reviewed by the Faculty of Education's Ethics Review Committee and has acquired their approval. The Faculty of Education will continue to monitor my study to further ensure that these guidelines are indeed followed.

If you decide to participate in the study, you may keep this cover letter; return only the questionnaire in the self-addressed, stamped envelope that is provided. If you have any questions or concerns please do not hesitate to contact me at (709)781-4202 or my thesis advisor, Dr. George Hache, at (709)737-7630. If, at any time, you wish to speak with a resource person not associated with the study, please contact the Associate Dean of Graduate Studies, Faculty of Education, Memorial University at (709)737-3402.

I would appreciate it if you would return the completed questionnaire to me by October 5, 1998.

Thank you for your time and valuable input into my study.

Sincerely,

Bev Fleet, RN, B.Voc.Ed.

QUESTIONNAIRE

PART 1: **This section is asking you, as a post-secondary instructor, to rate the importance of the following in relation to knowledge instructors require before entering a classroom. That is, how *you* view the importance of each of the following in pre-service teacher training for post-secondary instructors.**

For questions 1 through 46 please circle the number that best describes your view: "1" being very important (VI) and "5" being not important (NI).

Teaching Methods: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
1.	1	2	3	4	5	how to implement a variety of standard teaching methods (e.g. lecture, hands-on training, group discussion, etc).
2.	1	2	3	4	5	how to manage group dynamics associated with each teaching method.
3.	1	2	3	4	5	how to use teaching methods that are appropriate to particular teaching situations (e.g. lab, classroom, small group, discussion, etc).
4.	1	2	3	4	5	how to judge the appropriateness of teaching methods for different situations.
5.	1	2	3	4	5	how to judge the effectiveness of selected teaching methods.

6. Any other aspects of teaching methods you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Use of Instructional Media (Overheads, films, handouts, etc.): How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
7.	1	2	3	4	5	how to properly use instructional media and hardware.
8.	1	2	3	4	5	how to troubleshoot instructional equipment, such as overhead projectors and computers, and other simple problems.
9.	1	2	3	4	5	how to substitute for, add to, switch, or create instructional media that may be required.
10.	1	2	3	4	5	how to judge whether instructional media has been effectively used.

11. Any other aspects on the use of instructional media you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Lesson Presentation Skills: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
12.	1	2	3	4	5	how to use a teaching voice effectively.
13.	1	2	3	4	5	how to use eye contact effectively.
14.	1	2	3	4	5	how to effectively organize lesson content.
15.	1	2	3	4	5	how to effectively organize course content.

16. Any other lesson presentation skills you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Communication Skills: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
17.	1	2	3	4	5	how to use gestures, silence, movement, posture, space and props effectively.
18.	1	2	3	4	5	how to adapt verbal and nonverbal messages to provide instruction to those students who have special needs (e.g. students may have hearing, sight, or learning disabilities).
19.	1	2	3	4	5	how to determine whether students understand teaching messages.
20.	1	2	3	4	5	how to use active listening techniques (IE. techniques that allow you to understand the speaker's point of view).

21. Any other communication skills you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Positive Reinforcement and Motivating Skills: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
22.	1	2	3	4	5	how to match learning outcomes to the needs and goals of both the student and the school.
23.	1	2	3	4	5	how to motivate students to learn a lesson.
24.	1	2	3	4	5	how to plan and deliberately use feedback and positive reinforcement during instruction (e.g. praise, written comments, non-verbal gestures, etc).

25. Any other motivating skills you feel are important to have in pre-service teacher training but are not covered above can be described below:

_____

_____

Managing the Learning Environment: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
26.	1	2	3	4	5	how to prepare the instructional site (physical arrangements of equipment, materials, and furniture) to support the instruction.
27.	1	2	3	4	5	how to involve students in establishing a comfortable learning environment.
28.	1	2	3	4	5	how to manage the time that is required for each lesson.
29.	1	2	3	4	5	how to manage the time that is required for each course.
30.	1	2	3	4	5	how to manage students' interactions and participation in the class.
31.	1	2	3	4	5	how to deal with those students who exhibit behavior problems.

32. Any other learning environment management skills you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Evaluating Student Performance: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
33.	1	2	3	4	5	how to monitor student progress during instruction.
34.	1	2	3	4	5	how to prepare tests and other methods of evaluation.
35.	1	2	3	4	5	how to grade tests and other methods of evaluation (e.g. assignments, presentations, etc).
36.	1	2	3	4	5	how to evaluate whether or not students have attained end-of-course objectives.
37.	1	2	3	4	5	how to judge the adequacy of the evaluation method used.

38. Any other student evaluation skills you feel are important to have in pre-service teacher training but are not covered above can be described below:

_____

_____

Questioning Skills and Techniques: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
39.	1	2	3	4	5	how to use appropriate question types and levels to enhance student learning.
40.	1	2	3	4	5	how to determine if the students are understanding the lesson material by using appropriate questioning techniques.
41.	1	2	3	4	5	how to appropriately direct students' questions.
42.	1	2	3	4	5	how to judge the adequacy of instructional questions.

43. Any other questioning skills and techniques you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Preparing Evaluation Reports: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
44.	1	2	3	4	5	how to prepare students' final course marks.
45.	1	2	3	4	5	how to evaluate and make appropriate revisions and changes to existing course material.

46. Any other skills regarding evaluation reports you feel are important to have in pre-service teacher training but are not covered above can be described below

_____

_____

Other Areas of Concern:

47. Please use the space below to describe any other areas of teacher training you feel should be included in pre-service teacher training for post-secondary instructors.

_____

_____

_____

_____

_____

_____

_____

PART 2 : General Information

48. What is the highest level of education you currently possess? (Please mark an "X" in one place)

____ College Diploma
____ Associate Degree
____ Bachelor's Degree
____ Master's Degree
____ Doctorate Degree
____ Other _____

49. Are you currently enrolled in a program of study? (Please mark an "X" in the appropriate place)

____ College Diploma
____ Associate Degree
____ Bachelor's Degree
____ Master's Degree
____ Doctorate Degree
____ Other _____

50. How many years have you been teaching in a post-secondary institution? (Circle one)

a) Less than 1 year b) 2 - 3 years c) 4 - 5 years

51. Do you hold a Newfoundland Technical and Vocational Instructor's Certificate? (Circle one)

Yes No

52. Prior to post-secondary school employment, did your formal preparation include any specific training in:
(Please answer "yes" or "no" in the space provided for each statement)

____ how to teach adult students

____ how to write course objectives

____ how to instruct based on meeting course objectives and considering various learning styles

____ how to write a test based on measuring course objectives

53. During your post-secondary school employment, have you received any specific training in:
(Please answer "yes" or "no" in the space provided for each statement)

____ how to teach adult students

____ how to write course objectives

____ how to instruct based on meeting course objectives and considering various learning styles

____ how to write a test based on measuring course objectives

If you would consent to an interview for clarification on some of the above questions, or wish to add anything you feel is important and may not have been addressed in the questionnaire, please fill in the following information. Again all information collected in this study will be kept confidential. That is, in no way will you or the institution you work for be identified in the report of this study.

Name: _____

Address: _____

_____

_____

Phone: _____

E-Mail: _____

Thank you for taking the time to complete this questionnaire.

Please place it in the self-addressed, stamped envelope provided and return it to me by October 5, 1998.

Appendix D

Employer Survey Cover Letter and Questionnaire

Dear Employer:

I am a graduate student in the Faculty of Education at Memorial University conducting thesis research of instructors' and employers' views regarding pre-service teacher training for post-secondary instructors. This is being done to complete my master's degree requirements.

As your position in the post-secondary education industry has provided you with vital information that can be useful in my study, I am sending you a questionnaire that will require a few minutes of your time to complete. Your candid responses to the survey items would provide me with the critical views of employers regarding the various aspects of teacher training in relation to what instructors may require prior to entrance into classroom teaching.

Participation in the study is voluntary. You are assured that all information gathered in this study will remain strictly confidential and at no time will individuals or institutions be identified or connected with any particular information. To ensure that the design of the study has been appropriately developed and conforms to all ethical guidelines it has been submitted and reviewed by the Faculty of Education's Ethics Review Committee and has acquired their approval. The Faculty of Education will continue to monitor my study to further ensure that these guidelines are indeed followed.

If you decide to participate in the study, you may keep this cover letter; return only the questionnaire in the self-addressed, stamped envelope that is provided. If you have any questions or concerns please do not hesitate to contact me at (709)781-4202 or my thesis advisor, Dr. George Hache, at (709)737-7630. If, at any time, you wish to speak with a resource person not associated with the study, please contact the Associate Dean of Graduate Studies, Faculty of Education, Memorial University at (709)737-3402.

I would appreciate it if you would return the completed questionnaire to me by October 5, 1998.

Thank you for your time and valuable input into my study.

Sincerely,

Bev Fleet, RN, BvocEd

QUESTIONNAIRE

PART 1: **This section is asking you, as an employer of post-secondary instructors, to rate the importance of the following in relation to knowledge instructors require before entering a classroom. That is, how *you* view the importance of each of the following in pre-service teacher training for post-secondary instructors.**

For questions 1 through 46 please circle the number that best describes your view: "1" being very important (VI) and "5" being not important (NI).

Teaching Methods: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
1.	1	2	3	4	5	how to implement a variety of standard teaching methods (e.g. lecture, hands-on training, group discussion, etc).
2.	1	2	3	4	5	how to manage group dynamics associated with each teaching method.
3.	1	2	3	4	5	how to use teaching methods that are appropriate to particular teaching situations (e.g. lab, classroom, small group discussion, etc).
4.	1	2	3	4	5	how to judge the appropriateness of teaching methods for different situations.
5.	1	2	3	4	5	how to judge the effectiveness of selected teaching methods.

6. Any other aspects of teaching methods you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Use of Instructional Media (Overheads, films, handouts, etc.): How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
7.	1	2	3	4	5	how to properly use instructional media and hardware.
8.	1	2	3	4	5	how to troubleshoot instructional equipment, such as overhead projectors and computers, and other simple problems.
9.	1	2	3	4	5	how to substitute for, add to, switch, or create instructional media that may be required.
10.	1	2	3	4	5	how to judge whether instructional media has been effectively used.

11. Any other aspects on the use of instructional media you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Lesson Presentation Skills: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
12.	1	2	3	4	5	how to use a teaching voice effectively.
13.	1	2	3	4	5	how to use eye contact effectively.
14.	1	2	3	4	5	how to effectively organize lesson content.
15.	1	2	3	4	5	how to effectively organize course content.

16. Any other lesson presentation skills you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Communication Skills: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
17.	1	2	3	4	5	how to use gestures, silence, movement, posture, space and props effectively.
18.	1	2	3	4	5	how to adapt verbal and nonverbal messages to provide instruction to those students who have special needs (e.g. students may have hearing, sight, or learning disabilities).
19.	1	2	3	4	5	how to determine whether students understand teaching messages.
20.	1	2	3	4	5	how to use active listening techniques (IE. techniques that allow you to understand the speaker's point of view).

21. Any other communication skills you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Positive Reinforcement and Motivating Skills: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
22.	1	2	3	4	5	how to match learning outcomes to the needs and goals of both the student and the school.
23.	1	2	3	4	5	how to motivate students to learn a lesson.
24.	1	2	3	4	5	how to plan and deliberately use feedback and positive reinforcement during instruction (e.g. praise, written comments, non-verbal gestures, etc).

25. Any other motivating skills you feel are important to have in pre-service teacher training but are not covered above can be described below:

_____

_____

Managing the Learning Environment: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
26.	1	2	3	4	5	how to prepare the instructional site (physical arrangements of equipment, materials, and furniture) to support the instruction.
27.	1	2	3	4	5	how to involve students in establishing a comfortable learning environment.
28.	1	2	3	4	5	how to manage the time that is required for each lesson.
29.	1	2	3	4	5	how to manage the time that is required for each course.
30.	1	2	3	4	5	how to manage students' interactions and participation in the class.
31.	1	2	3	4	5	how to deal with those students who exhibit behavior problems.

32. Any other learning environment management skills you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Evaluating Student Performance: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
33.	1	2	3	4	5	how to monitor student progress during instruction.
34.	1	2	3	4	5	how to prepare tests and other methods of evaluation.
35.	1	2	3	4	5	how to grade tests and other methods of evaluation (e.g. assignments, presentations, etc).
36.	1	2	3	4	5	how to evaluate whether or not students have attained end-of-course objectives.
37.	1	2	3	4	5	how to judge the adequacy of the evaluation method used.

38. Any other student evaluation skills you feel are important to have in pre-service teacher training but are not covered above can be described below:

_____

_____

Questioning Skills and Techniques: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
39.	1	2	3	4	5	how to use appropriate question types and levels to enhance student learning.
40.	1	2	3	4	5	how to determine if the students are understanding the lesson material by using appropriate questioning techniques.
41.	1	2	3	4	5	how to appropriately direct students' questions.
42.	1	2	3	4	5	how to judge the adequacy of instructional questions.

43. Any other questioning skills and techniques you feel are important to have in pre-service teacher training but are not covered above can be described below.

_____

_____

Preparing Evaluation Reports: How important is it for post-secondary instructors to have training, prior to beginning teaching, in each of the following areas?

	VI				NI	
44.	1	2	3	4	5	how to prepare students' final course marks.
45.	1	2	3	4	5	how to evaluate and make appropriate revisions and changes to existing course material.

46. Any other skills regarding evaluation reports you feel are important to have in pre-service teacher training but are not covered above can be described below

_____

_____

Other Areas of Concern:

47. **Please use the space below to describe any other areas of teacher training you feel should be included in pre-service teacher training for post-secondary instructors.**

_____

_____

_____

_____

_____

_____

_____

If you would consent to an interview for clarification on some of the above questions, or wish to add anything you feel is important and may not have been addressed in the questionnaire, please fill in the following information. Again all information collected in this study will be kept confidential. That is, in no way will you or the institution you work for be identified in the report of this study.

Name: _____

Address: _____

_____

_____

Phone: _____

E-Mail: _____

Thank you for taking the time to complete this questionnaire.

Please place it in the self-addressed, stamped envelope and return it to me by October 5, 1998.

Appendix E

Anecdotal Data - Comments from Instructors and Employers

Item Six

Item six on the questionnaire stated: "Any other aspects of teaching methods you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors and employers in response to this item.

Instructors' Comments.

"I feel that you have an excellent knowledge of the topic and the ability to convey that knowledge so others can understand it, then you do not need a B.Voc.Ed degree. The Government accepts instructors in post-secondary institutions because they have a primary education degree even though this person does not know the material."

"Evaluation methods."

"Have opportunities/experiences practicing different methods prior to doing so 'in real life'. Instructors need lots of 'internship' practice."

"Administrative/organizational skills."

"Use a different range of students such as interested, board(sic), nervious(sic), not caring, etc."

"Survival skills."

"Just a comment - there are other training methods available other than through MUN."

"Development of solid lesson plans (or would this be included in #1)."

"Technical training and updating technology through trade shows, conventions and training."

"Before entering a classroom to teach we have had so much experience in the above."

"Discipline, ie. Keeping class in order (because this interferes with teaching)."

"Age and experience can definitely go a long way in relieving some of the above."

"Don't be afraid to try unorthodox methods or suggestions from varying sources. Tried and true methods are great, but a lot are stale."

"Completion of Voc. Ed. Diploma."

"I think it is most important, to have training, for teaching hands on techniques."

Employers' Comments.

"It is vital that trainers instructing in advanced technical areas must themselves possess experience working in this area before ever becoming a trainer. Methods of instruction are very unimportant when it comes to knowing advanced technology. Good instructors know methods from their own experiences as a student and therefore know what works well and when."

"How to prepare for the teaching situation."

"Soft skills."

"Giving and receiving feedback."

Item 11

Item 11 on the questionnaire stated: "Any other aspects on the use of instructional media you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors and employers in response to this item.

Instructors' Comments.

"Some people learn better through visual aids and it helps keep students attentive."

"Know when "not" to tinker with instructional media...get a replacement, or an expert."

"Ability to print or draw on board would be an assett (sic)."

"Many instructors cannot properly use the technology in the classroom. Need more training on common applications."

"Computers hadware (sic) - printer, access rights etc very critical."

"Maintaining functional-stable PC environment in classroom v. important."

"This type of training can occur in brief workshops."

"Use of visual aids - colored markers, etc."

"Knowledge of resources for technical support for various instructional media & hardware. Ph #'s, fax's (sic), web site, documents, etc."

"Personally I like video tapes."

Employers' Comments.

"The media listed except for computers are outdated and ineffective for teaching advanced technology. All forms of media associated with computer training are most effective as is being able to manipulate them."

"New technoligical (sic) AV equipment."

"Someone on staff (Technical person)."

Item 16

Item 16 on the questionnaire stated: "Any other lesson presentation skills you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors and employers in response to this item.

Instructors' Comments.

"How to use body language effectively."

"Again, this can be achieved without training."

"How to evaluate the effectiveness of these skills."

"How to bring hesitant students into the learning process."

"Time frames - how to estimate what can be covered in a 50 minute lecture."

"Step by step explanation system - simpliest (sic) to extragant (sic)."

"Incorporate fun into boring topics - 1=VI."

"Once again brief workshops can effectively accommodate this need."

"How to keep the students interested and alert in class by making the subject enjoyable and fun."

"How to maintain the interest of your audience."

"Effectively ask for feedback - effective questions for feedback (positive)."

"How to invoke interaction in the learning environment."

"Completion of courses - ie. Education 2710, 2730, to better inform instructor."

"I feel the instructors have to earn the respect of their students, & then, eye contact, & voice effectiveness, would not be so important. If they respect you then they will listen to what you have to say."

Employers' Comments.

"Most of this comes from one's own experience as a student and increases as one gains experience as an instructor. Training prior to teaching would not be a good use of training time."

"How to develop learning packages (modules)."

Item 21

Item 21 on the questionnaire stated: "Any other communication skills you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors and employers in response to this item.

Instructors' Comments.

" #18 - This may come under special skills."

"Evaluation of the effectiveness of these skills."

"How to determine which students are not "tuning in" before they fail an exam."

"Most of these are naturally acquired within a brief period in class. Once again brief workshops would work here."

"Passing on to students the need to speak well cannot be overemphasized."

Employers' Comments.

"Leadership skills."

"How to allow students to advance at their own pace."

Item 25

Item 25 on the questionnaire stated: "Any other motivating skills you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors in response to this item. There were no employers' comments for this item.

Instructors' Comments.

"Understand the student's background to guide motivation in the direction needed."

"(Referring to item 22) However, know how to match these, and doing so are different issues. Many college instructors do not have control over the course content."

"How to motivate students to attend all sessions."

"(Referring to item 22) Very frustrating to hear students say - I didn't learn anything. While you the instructor slaved to get the material into their head. If they didn't put any effort in - we are the scapegoat & our methods are criticized. There is no accountability on the student's part."

"(Referring to item 24) These skills are of an individual personality & Human resources people should screen applicants before hiring to ensure such personal skill exists."

"I think I am basing my answers on my weak areas."

"How to recognize when an individual may need more encouragement."

"Definite completion of Educ. 2710 & 2730."

"Letting students have input into their own needs and desires."

"Motivation comes from within. Therefore, we must create an environment conducive."

Item 32

Item 32 on the questionnaire stated: "Any other learning environment management skills you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors in response to this item. There were no employers' comments for this item.

Instructors' Comments.

" Question 31 is not an issue because of maturity level of students in corporate environment."

"The environment can be the motivating key in some cases."

"(Referring to Q31) Students run to the top level before approaching the teacher - they do not understand certain channels or protocol must be observed."

"(Referring to Q28) Very difficult each class different."

"How to encourage working as groups. How to encourage participation from all."

"(Time causes grief)."

Item 38

Item 38 on the questionnaire stated: "Any other student evaluation skills you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors in response to this item. There were no employers' comments for this item.

Instructors' Comments.

"This would more lean toward the instructor being or becoming a course developer."

"This again is mostly a natural occurance (sic). Remember we know employer expectations."

"How to consult with a student who may not be progressing up to par."

"Again, this also depends on Instructor age and experience."

Item 43

Item 43 on the questionnaire stated: "Any other questioning skills and techniques you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are the only two comments made by an instructor and an employer in response to this item.

Instructor's Comment.

"How to determine if certain questions should or should not be used."

Employer's Comment.

"Handling difficult questions and students."

Item 46

Item 46 on the questionnaire stated: "Any other skills regarding evaluation reports you feel are important to have in pre-service teacher training but are not covered above can be described below". The following are comments made by instructors in response to this item. There were no employers' comments for this item.

Instructors' Comments.

"Yet again with great confidence I say a natural occurance (sic)."

"How to keep updated with new technology which would deal with making ongoing revisions to course content."

"The instructor requires a system in place, that shows the grading system of the complete cross-section of theoretical/practical learning achieved by student."

Item 47

Item 47 on the questionnaire stated: "Please use the space below to describe any other areas of teacher training you feel should be included in pre-service teacher training for post-secondary instructors". The following are comments made by instructors and employers in response to this item.

Instructors' Comments.

"There should be extensive training for instructors teaching adults with learning disabilities. Instruction should be given on various teaching techniques & methods to use when instructing individuals with learning disabilities."

"How to merge a student's past experiences with the course material and adjust accordingly."

"How about a course in "understanding the young adult learner"...many faculty don't understand what drives the learner in these institutions."

"Most important is to have the ability to stand in front of a group of people and speak, this requires getting over the nervousness which comes from knowing that you have the ability to do a good job."

"I think that major emphasis should be placed on dealing with the adult learner, & how to control/handle situations which may arise during lesson delivery. Also how to instruct, interact, & maintain control relating to the new student attitudes & behaviours."

"Internship program. The education courses that I took did not prepare me for teaching like the internship of teaching did. In the 4 months that I was an intern, I learned much more that could be taught in class. This, however, is only if you are matched with a good teacher."

"Classroom survival skills, how to handle large class sizes. Mental anxiety towards the experience initially."

"Personal time management skills. Finding appropriate resource materials on a limited budget."

"Sitting in on other instructors classes to learn new ideas for yourself, and to pass on any ideas that may help that instructor. Working together as a team."

"Dealing with a mixed class: mature students & then 18-19 yr olds."

"I personally think the technical compitance (sic) of the instructor in their field is the single most important thing. The next most important thing is the ability of the teacher to communicate with the students. No method of training can substitute for the technical compitance (sic) of the instructor this comes with workplace experience. We are trying to get students jobs."

"In my field as a civil engineering technician I feel that it is important for students to be able to work in groups, be able to clearly express their opinions, solve problems as a group and encourage individuals within a group to credit each other."

"I found the most difficult thing when I started out was preparing the lessons. The time involved in doing so was tremendous because I had no guidelines to follow."

"Attitude (Holistic) - Instructors have to be conscious of personal and individual concerns, problems and other aspects of students to effectively instruct. Not to involve themselves personally but to use this information to deal with common problems."

"How to adequately address discipline problems in a school system."

"Creative teaching styles - interactive learning - student focused learning."

"I feel that post-secondary training would vary a lot, depending on type of course. Most important would be knowledge of course material. A basic training course (emphasizing speaking, use of equip. (A/V etc.), testing methods, etc.) would be very good for all instructors. But after that, the differences in the types of courses would be too broad to have training to address all needs. Unless, it was training specific to the training. Ex. Mechanic, secretary training requirements would be very different."

"How to get students to ask for extra help if needed? How to get students not to feel inadequate."

"Many of these skills can be acquired through other means than specific 'teacher' training. A short certificate would be appropriate in my mind. Approximately 3 condensed courses: a) Organization & curriculum development/modification b) Evaluation c) Teaching methods / media / presentation skills / positive reinforcement / motivation / managing learning environment."

"Overall, I would like to see a shift in private colleges towards an emphasis on strong academic standards in their teaching staff. In pre-service teacher training, I feel there is need for training in adult learning disabilities & how to effectively work with such students."

"1. Compatibility - the teacher should be 'team oriented', that is used to working with Human Beings. 2. Good balance of emotions, behaviour. 3. Calmness, collectiveness, having it together, able to not blast out emotionally but to calmly think out the situation and pick the best appropriate solution for the student involved."

"I feel teacher training, coupled with a skill (ie. Use of computer software), helps a person to be more confident in teaching. I feel that there are less problems in the class. Knowing your skill area well doesn't necessarily make one a good teacher/instructor."

"Of interest to you would be the model being used by NAIT. They have a program (2 weeks) that they put all their new instructional staff through before they head into the classroom. A real good program that helps people straight out of industry with ++ occupational expertise but 0 teaching skills."

Employers' Comments.

"Teacher training would be most beneficial if a potential trainer could spend time analyzing the teaching styles & methods of other teachers in that area - 2-3 months with 2-3 different teachers."

"Training in adult education & working with adults; understanding adult needs, etc. Some level of competence using computers, technology in the classroom."

"A shorter more intensive training program for instructors (on site) to complete Dept. of Educ. credit requirements."

"Your survey is premised on group teaching/lecture format. A lot of teaching doesn't follow that mode today, especially in an individualized system."

"Orientation to facilities & services."

"In light of recent events within the Private training school industry and the requirements that the dept. Ed has for instructor qualifications I think that the teacher guidelines should be overhauled and that your thesis - which is very timely- be submitted to Dr. Phil Warren."

"Retention of students - not by lowering standards but by giving extra assistance where required to reach those standards."

"While I feel strongly that it is generally very important that P.S. Instructors have this training prior to beginning teaching it is not always practical in our specific environment. The other point I feel strongly about is the availability of this training in rural areas. Instructor schedules are not taken into consideration."

"Training in the actual course material being taught should be ongoing from beginning to end of instructional career especially in new computer courses. Time to properly be able to present it to students."