THE EFFECTS OF AN INSTITUTE ON GLOBAL EDUCATION ON TEACHERS' KNOWLEDGE OF AND ATTITUDES TOWARD GLOBAL EDUCATION

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The Effects of An Institute on Global Education on Teachers' Knowledge of and Attitudes Toward Global Education

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

Faculty of Education
Memorial University of Newfoundland
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St. John's Newfoundland
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Abstract

Many teachers seek guidance to help them prepare their pupils to deal with the ever-changing realities of our world. In response to this need, the Newfoundland Global Education Project, *Sharing the Planet*, developed a six-week global education institute for Newfoundland teachers during the 1992 Summer Session of Memorial University of Newfoundland. This study attempted to determine the effects of that institute on teachers' knowledge of and attitudes toward global education. Specifically four questions were posed: 1) Was there a change, during the course, in participants' attitudes toward incorporating objectives that reflect a global perspective into their teaching. 2) Was there a change, during the course, in the opinions of participants with respect to: a) the curricular elements they consider necessary for the effective implementation of global education into the school curriculum; b) their perceived level of competence in those teaching strategies which are recommended for teaching from a global perspective; and c) the institutional factors which they consider to be positive or negative influences in trying to implement
a global perspective into the curriculum? 3) Was there a difference between definitions of global education written by participants at the end of the course from those written at the beginning? 4) What components of the course did the participants feel were most worthwhile in helping them gain a clearer understanding of how to teach with a global perspective? To determine the answers to these questions the study utilized a pretest-posttest control-group design. Major findings of the study were: a) during the course participants developed a more favourable attitude toward incorporating global education objectives into their teaching; b) students felt they had developed competence in a number of teaching strategies recommended for global education; c) while the participants recognized the necessity of global education at all levels of the school curriculum, they were ambivalent as to whether global education should be the responsibility of all school subjects or only the social studies; d) concerns were also expressed by the participants with respect to the negative influence of institutional factors such as availability of instructional and preparation time; and e) the
definitions of global education written by the participants became more elaborated and refined by the completion of the course. Overall, participants indicated the institute was very beneficial in developing their level of understanding of and competence in global education. They also recommended that a course such as this one should be required of all teachers.
Acknowledgements

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Chapter I
Statement of the Problem

While the physical size of the planet we call home has not changed for millions of years, the advent of modern technology has done much to ‘reduce’ the size of our earth. The world has been transformed from isolated pockets of population into what is now referred to as a ‘global village’. Until fairly recently in human history, one only needed to be concerned about local events such as crop failures, drought, tribal wars and diseases. Today, however, many events like the fall of communism in the Soviet Union, military conflicts such as the Gulf War, destruction of the world’s rainforest, and famine and relief efforts have a global impact. Tye (1990) commented that these new and astounding economic, political, cultural, ecological, and technological realities are coming at us from all directions.

Due to these realities, young people today need more than the traditional approaches to schooling if they are to be well-prepared for effective participation in an ever increasingly interdependent
world. Without efforts to transform the school curriculum, it is doubtful whether students will develop the understanding, skills, attitudes and values which will enable them to cope with the rapidly changing world in which they live. The efforts designed to help prepare our young people for the tomorrow they will face are commonly labelled as 'global education'.

Global education, as suggested by Gilliom (1981) and Alladin (1989), should be viewed as the responsibility of all teachers and not of any single subject area. As suggested by Alladin (1989) "a student will develop a global perspective only if global education runs through the student's entire world experience" (p. 9). This will be a great challenge for many teachers, for most do not feel ready for the task (Merryfield, 1991; Otero, 1983; Tucker, 1991).

Many teachers will require assistance in learning how to take on this new responsibility and due to its complex nature, in-depth study will be required (Merryfield, 1991). This need was recognized by the Newfoundland Global Education Project, an initiative of
the Newfoundland Teachers' Association and the Canadian International Development Agency (CIDA) designed to infuse global perspectives throughout the curriculum of the province. One outcome of this initiative was the offering of a six week graduate course in global education by Memorial University of Newfoundland during the 1992 Summer School Session.

It is, of course, important to assess the impact of such study on teachers, to determine if they are being adequately prepared to help young people take on their roles in an ever increasingly interdependent world.

**Purpose of the Study**

It was the primary intent of this study to determine the effects of this particular graduate course on participants' knowledge of and attitudes toward global education. More specifically, answers to the following questions were sought in the course of this assessment:

1) Was there a change, during the course, in participants' attitudes toward incorporating objectives that reflect a global perspective into their teaching?
2) Was there a change, during the course, in the opinions of participants with respect to: a) the curricular elements they consider necessary for the effective implementation of global education into the school curriculum; b) their perceived level of competence in those teaching strategies which are recommended for teaching from a global perspective; and c) the institutional factors which they consider to be positive or negative influences in trying to implement a global perspective into the curriculum?

3) Was there a difference between definitions of global education written by participants at the beginning of the course from those written at the end?

4) What components of the course did the participants feel were most worthwhile in helping them gain a clearer understanding of how to teach with a global perspective?

To accomplish this, a comparison of participants' knowledge of and attitudes towards global education prior to and at the completion of the course was made using a pretest/posttest format.
Overview of the Study

Rationale for a global education.

Our world has reached a critical point in its history. Perinbam (1989) suggested:

We are in one of the watersheds of history; our world is in the midst of a dramatic transformation. Millions of people are churning in one of history's greatest revolutions. They are in revolt against poverty and injustice...They are determined, more than ever before, to build societies that ensure their freedom, respect their dignity and improve their economic and social conditions. (pp. 23-24)

These new realities and transformations, which cannot be ignored, have largely been due to three historical changes in the world's social structure. Anderson (1990) identified one of these as being the accelerating growth of global interdependence. "The growth of global interdependence can be seen in the expansion of technological, political, cultural, economic and ecological networks connecting different peoples, cultures, civilizations and regions" (p. 14). Advances in transportation and communication have brought people, information, goods, services, even diseases closer together. World markets are creating a global economy and the success of it depends upon and is important to everyone - raw materials, consumer
goods and technology are all items that we rely upon the world market to provide. International organizations such as the United Nations are becoming leaders on the political scene and thus many social problems are becoming internationalized.

As a result of this growing interdependence, a global culture is developing in coexistence with distinct cultures with many commonalities:

The technical language of this emerging culture is English. Its common ideology is science. Its characteristic social institutions are large-scale, globe-spanning, public and private bureaucracies. Its commonly shared technologies are jet planes, communication satellites, telexes, networks of interconnected computers, facsimile machines and transworld telephone systems. (Anderson, 1990 p. 16)

Vuorinen (1991) supported this idea stating, "we are interconnected to other people and countries no matter how far away we are in terms of time and distance" (p. 52). Lee Anderson (1982) suggested that this interrelatedness will increase as the two other factors of western dominance and American hegemony decline. The erosion of western dominance has been identified as a factor which has brought on many of the changes our world is experiencing. Politically, culturally and economically, western dominance is
slowly diminishing and many other countries or regions are emerging as leaders in today's society.

A closely allied phenomenon, the decline of American hegemony, has led to other countries becoming strong leaders in the political and economic world. After World War II, "the United States dominated world production, commerce, and finance; and the nation exercised an unequal degree of political and cultural influence over the rest of the world... (however), in the early 1970's, the U. S. hegemony began to decline" (Anderson, 1990, p. 18). The United States no longer has the same power it once had, other nations are catching up.

These factors have led us, as Canadians, to a point in our history where we can no longer ignore what is happening elsewhere in the world. Every country in the world is now our neighbour and we are interrelated with and interdependent upon each other. Concerns of overpopulation, poverty, hunger, diminishing resources, pollution, global warming, peace, security, human rights, quality of life and inflation, to name a few, are not limited by national boundaries. They are on the doorstep of every human being.
The time has come to teach our children that the lives of people around the world are interconnected and prepare them to deal with the ever-changing realities of their world. As we have been reminded by Roche (1989), we must teach them that:

If this world is going to survive, we have to work together with a spirit of cooperation rather than building up forces against one another and trying to compete for every aspect of economics and resources in which the disparities create such intolerable human suffering. (p. 18)

Ramler (1991) supported this idea of cooperation by stressing the need to help our students "see through the eyes, minds, and hearts of others" (p. 45). Phillipsen (1986) viewed this new perspective as a survival skill, while Gibbons and Neuman (1985-86) referred to it as developing a new global consciousness which will give our young people the determination and skills they need to cope.

Bacchus (1989) contends that global education "emphasizes the fact that most of the problems faced by the different nations of the world are essentially interconnected" (p. 19). Kniep (1989a) argues that if there are not international solutions to these problems, there will be no solutions at all.
Clearly the literature suggests that we, as educators, pay heed to these ideas. Children need our help in learning how to become concerned global citizens.

**Newfoundland’s global education project.**

To help prepare students to become global citizens, the Newfoundland and Labrador Global Education Project, "Sharing the Planet", was implemented on February 1, 1991 as a joint effort between the Newfoundland Teachers' Association and the Canadian International Development Agency (CIDA), along with support from other provincial agencies including the Provincial Department of Education, the Newfoundland and Labrador School Trustees' Association, the Denominational Education Councils, the Superintendent's Association and the Faculty of Education at Memorial University of Newfoundland.

This is a three year project aimed at infusing a global perspective across the curriculum through "offering learning approaches for teachers so they, in turn, may provide experiences that will increase global understanding for their students" (Tulk, 1991, p.6). To help fulfil this aim, an inservice program for
teachers has been developed, a global education resource centre has been established and a networking system for teachers has been organized.

In an attempt to ensure success, the project put in place three organizational structures: A Global Education Advisory Council, representing 12 educational agencies, responsible for reviewing the overall thrust of the project and offering advice to the Project Management Board; The Project Management Board which approves the inservice model and organizational framework as well as supervises the fiscal management for the project, and the Executive Committee which ensures the implementation of Management Board decisions. Also, at the onset of the project, 11 regional support teams were established and education in global education philosophy, resources and methodology was provided for the team members (teachers and coordinators) through an intense three day training session. These teams were then responsible for conducting inservice workshop sessions in global education in their respective regions.

While the goal of the Newfoundland project is to infuse a global perspective across the entire
curriculum, the organizers have acknowledged the fact that some subject areas lend themselves more readily towards that aim. As a result, the first year of inservice was mainly focused on two courses: Grade 8 World Cultures and World Problems 3204, a course taken by senior high school students.

In addition to the primary focus on these two courses, workshop sessions on various aspects of global education were conducted at professional development conferences and annual meetings throughout the year. Presentations were also made at schools, Memorial University and at a number of other seminars and meetings.

Early in the second year of the Newfoundland Global Education Project, decisions were made to offer a course in global education for teachers at the graduate level. This course was a six week institute offered during the 1992 Summer Session of Memorial University of Newfoundland. It was this institute which was the focus of this study.
Significance of the Study

The success or failure of the global education initiatives in Newfoundland and Labrador will rely heavily upon the classroom teacher. Cogan (1977) stated, "...the teacher is the keystone of any educational endeavour" (p. 47). The knowledge, abilities, attitudes and initiatives of teachers are the fundamental influences on the degree to which a global education will occur within the classroom.

It is of utmost importance, therefore, that every effort be made to upgrade the global education knowledge and skills of teachers in the province. Furthermore, it is important that assessments of those efforts be conducted to ensure the effectiveness of such work.

In this regard, this study is significant in that it provides information about the effectiveness of one approach to the task of providing inservice education for teachers. Personnel of the Newfoundland Global Education Project, the Provincial Department of Education and Memorial University of Newfoundland have voiced an interest in the results of this assessment.
Limitations of the Study

The researcher acknowledges that this study was limited by the following factors which should be considered in any interpretation of the findings:

1. The sample size was small and thus cautions are in order in generalizing to the teaching population or to other institutes of this nature.

2. The population for the experimental group was not randomly selected but rather was comprised of individuals who had registered for the course by personal choice.

3. Due to time constraints, the questionnaires were not field tested before they were administered for this study; however, they were considered valid by three experts in the field and later tested for internal reliability.

4. Since the study extended over a six week time frame, there was concern that the internal validity of the study would be threatened by other influential events occurring, in addition to the experimental variable, that
would possibly affect the outcome of the study (Fraenkel & Wallen, 1991). There was, of course, no way to control for such factors as history of the participants.

5. Participants could have possibly become 'test-wise' - showing improvement in the posttest due to their experience with the pretest rather than because of the treatment (Campbell & Stanley 1963). To control for this, consideration was given to administering the pretest to half of the participants and the posttest to all participants (i.e. the posttest scores of both groups, those with pretest and those without, would be compared). However, due to the small sample size this procedure could not be undertaken. There is, therefore, the possibility that posttest results reflect an interaction of the treatment with the sensitization that occurred as a result of having completed the pre-test.

The foregoing, notwithstanding, it is hoped the study provides some revealing information concerning institutes of this nature.
Chapter II
Literature Review

Introduction

The purpose of this study was to assess the effects of a global education institute on the participants’ knowledge of and attitudes towards global education. In order to provide a context for the work, this chapter explores four relevant areas of research: 1) the definition of global education; 2) the effective implementation of global education; 3) teacher education for global education; and 4) teacher attitudes toward global education.

Definition of Global Education

One of the major questions explored in this study is the definition of ‘global education’ held by the research subjects prior to and after the completion of the institute. The literature in this area is instructive.

Merryfield and Harris (1992) have suggested that "although there have been efforts within the field to agree on a definition or at least parameters for global
education, there is no universally accepted conceptualization" (p. 8). There does exist however considerable literature which addresses what global education is and what it means to teach from a global perspective. While some educators choose to describe the general areas of concern or issues in a global education program, others choose to generally delineate the expected results of such programs. In either case, Kniep (1986a) pointed out that "what is essential and unique about global education is its substantive focus drawn from a world increasingly characterized by pluralism, interdependence and change" (p.437).

Born in the sixties, [global education] is based on the beliefs that schools have not been doing enough to prepare young people for life in the future they will inherit and that schools and their programs have not kept up with a world in which increasingly rapid change affects practically every facet of our lives. (Kniep, 1989a, p. 12)

Hanvey (1982) agreed, that while the need for a global perspective is increasingly apparent, it is less clear as to what constitutes such a perspective. In an effort to clarify the issue, he identified five dimensions of a global perspective:

1. Perspective Consciousness: The recognition or awareness on the part of the individual that he or she has a view of the world that is not
universally shared, that this view of the world has been and continues to be shaped by influences that often escape conscious detection, and that others have views of the world that are profoundly different from one’s own. (p. 162)

2. "State of the Planet" Awareness: Awareness of prevailing world conditions and developments, including emergent conditions and trends, e.g. population growth, migrations, economic conditions, resources and physical environment, political developments, science and technology, law, health, inter-nation and intra-nation conflicts, etc. (p. 163)

3. Cross-Cultural Awareness: Awareness of the diversity of ideas and practices to be found around the world, of how such ideas and practices compare, and including some limited recognition of how the ideas and ways of one’s own society might be viewed from other vantage points. (p. 164)

4. Knowledge of Global Dynamics: Some modest comprehension of key traits and mechanisms of the world system, with emphasis on theories and concepts that may increase intelligent consciousness of global change. (p. 165)

5. Awareness of Human Choices: Some awareness of the problems of choice confronting individuals, nations, and the human species as consciousness and knowledge of the global system expands. (p. 165)

Hanvey (1982) felt that an important step in the development of a global perspective is the acknowledgement of diverse perspectives and that with effort we can help young people develop some sense of their own perspective. Also, since for most people
direct experiences outside of their own community are infrequent or nonexistent, Hanvey stressed the need for the second dimension, that of "State of the Planet" Awareness.

Cross-cultural awareness is viewed by Hanvey (1982) as one of the more difficult to obtain for it is difficult "...to comprehend and accept the consequences of the basic human capacity for creating unique cultures - with the resultant profound differences in outlook and practice manifested among societies" (p. 164). As a result Hanvey stressed the importance of getting inside the heads of others and looking at the world through their eyes. He identified a knowledge of global dynamics as important so that we move beyond the notion of cause and effect and see the more complex interaction where "'effects' loop back and become 'causes' which have 'effects' which loop back...It means that simple events ramify - unbelievably" (p. 165).

The fifth perspective, Awareness of Human Choices, becomes important for it involves a shift from a pre-global cognition, where only the short-term is considered, to a global cognition where long-term
consequences are considered based on new knowledge of system interactions. Hanvey (1982) stated, "we are in a period of transition, moving from a pre-global to a global cognition" (p. 166).

Very similar to Hanvey's (1982) five dimensions of a global perspective is the practical definition provided by two leading theoreticians in the field of global education, David Selby and Graham Pike, respectively the Director and Associate Director of the Centre for Global Education at the University of York in England. Pike and Selby (1990) have also identified five basic aims which must be present in order for a global perspective to exist: 1) System Consciousness (similar to Hanvey's Knowledge of Global Dynamics); 2) Perspective Consciousness (similar to Hanvey's Perspective Consciousness); 3) Health of Planet Awareness (similar to Hanvey's "State of Planet" Awareness); 4) Involvement Consciousness and Preparedness (similar to Hanvey's Awareness of Human Choices); and 5) Process Mindedness (the idea that students should learn that learning and personal development are continuous journeys with no fixed or final destinations). Pike and Selby emphasized the
need to develop higher levels of empowerment and the skills necessary for becoming effective participants in democratic decision-making at a variety of levels, grassroots to global.

Kniep (1986a, 1989a) also proposed a model for global education comprised of four areas of study. The first three of these are similar to Hanvey (1982) and Pike and Selby (1990): the study of human values; the study of global systems; and the study of global problems and issues.

The fourth component suggested by Kniep (1986a, 1989a) differs in that it specifically identifies the need for the study of global history. Kniep (1986a) wrote "the content of a global education is drawn from the present and historical realities that describe and define the world as a global society" (p. 437). He argued that an historical perspective must be incorporated in all other elements so the students can "understand the development of global systems over time, the evolution of human values and culture, and the antecedent conditions and causes of contemporary global problems and issues" (Kniep, 1989a, p. 15). The argument is that students will be better able to
understand interdependence by understanding how that interdependence has evolved.

Muessig (1981) also identified ingredients of a global perspective. The first is that of "spaceship earth" - or an ecological view of the world. Secondly, the unity of human species and the diversity of cultures. The third component is an interdependence of human relationships. Multiple loyalties such as working together and loyalty to our planet are identified as a fourth. The fifth component is human rights and sixth is the idea of futurism, where possible alternative futures and making choices become the focus.

While some educators choose to define global education by describing the general areas of concern or issues in a global education program, the most common way of defining global education is by describing the expected results of such programs. Lee Anderson (1979), one of the pioneers of global education, defined global education in this manner. "Global education consists of efforts to bring about changes in the content, the methods, and the social context of
education in order to better prepare students for citizenship in a global age" (p. 15).

He does not view global education as a theory but as an approach to developing a global perspective. Anderson (1979) felt that goals and objectives must be set in order for a global education program to be effective. As a result, he identified five specific capacities that global education should foster:

1) A capacity to perceive oneself & all other individuals as members of a single species of life whose numbers share a common biological status, a common way of adapting to their natural environment, a common history, a common set of biological and psychological needs, common existential concerns, and common social problems.

2) A capacity to perceive oneself, the groups to which one belongs, and the human species as a whole as a part of the earth’s ecosystem.

3) A capacity to perceive oneself and the groups to which one belongs as participants in the transnational social order.

4) A capacity to perceive oneself, one’s community, one’s nation, and one’s civilization as both "culture borrowers" and "culture depositors" who both draw from and contribute to a "global bank of human culture" that has been and continues to be fed by contributions from all peoples, in all geographical regions, and in all periods of history.

5) A capacity to self-consciously perceive that the world system and its component elements are objects of perceptions, beliefs, opinions,
values, and assumptions on our part as well as the part of others. (p. 35)

Roche (1989) and Alladin (1989) also described global education not as a theory but as an approach, a process. Roche (1989) emphasized the need to "inculcate in young people an attitude toward not only the world as it is but the world as it can be. Global education needs to help students understand the magnitude of the transformation that is now occurring in the world" (p. 16). In a similar view, Alladin (1989) viewed it necessary to teach a global perspective so that individuals have the knowledge, skills and attitudes necessary to understand our global world.

Brown (1983) also felt that the main goal of global education is to develop useful and effective citizens of a global society. To do so, Brown suggested six objectives to facilitate this overall goal which focus on teaching students to evaluate, react to and cope with changes in both their own lives and in the world:

1) To develop a positive concept of oneself as an individual who feels secure in a world characterized by diversity.
2) To develop an awareness of oneself as a member of one’s own society, and of a global society comprised of a single species of life.

3) To develop an awareness, understanding, and appreciation of the value of the individual, and of basic commonalities, and of how perceptions, values, judgements, and behaviours may differ among individuals and among various societies and cultures.

4) To develop an awareness and understanding of one’s interactions with others in one’s own and other societies, and of one’s impact upon them and their impact upon oneself.

5) To develop an awareness and understanding of major global concerns and problems and how they relate to one’s own life and environment.

6) To develop decision-making skills and action skills which one can use to influence situations involving global concerns, so that one may contribute constructively to an improvement of the total global environment. (pp. 35-36)

These objectives are designed such that they encourage open-endedness and the development of divergent and flexible thinkers.

Anderson and Anderson (1977) viewed global education as an extension of the school’s traditional responsibility for citizenship education and therefore defines global education as “education for responsible citizen involvement and effective participation in a global society” (p. 36). They argued we must get rid of the ‘we-they’ or ‘us-them’ dichotomy by developing
student competencies in perceiving their involvement in
global society, making decisions, making judgements and
exercising influence.

Gillion (1981) agreed with Anderson and Anderson
(1977), that we must no longer view the world from a
nationalistic or cultural perspective but rather view
the world as an 'interconnected global web'. Thus,
Gillion defined global education as:

Those educational efforts designed to cultivate in
young people a global perspective and to develop
in them the knowledge, skills, and attitudes
needed to live effectively in a world possessing
limited natural resources and characterized by
ethnic diversity, cultural pluralism, and
increasing interdependence. (p. 170)

Becker (1974) also focused on the need to connect
people of the world, to show their common humanity and
their common fate. He emphasized the need to focus
equally on the unity and diversity of the globe and the
need to "generate a loyalty to the planet as a whole"
(p. 681).

As can be seen, varying definitions of global
education exist. While there is no one accepted
conceptualization, a study by Merryfield in 1989, on
the conceptualization statements of 32 teacher
education programs that focus on preparing teachers in
global perspectives, round there to be three areas of
general consensus. The teacher educators agreed that
teachers need the knowledge and abilities to teach: (1)
an appreciation of cultural differences and
similarities, including multiple perspectives/
perspective consciousness; (2) the world as a system
and the concept of interdependence; and (3) how
students' decisions affect and are affected by global
connections in their local community (Merryfield &
Harris, 1992).

In a study by Morehouse and Collins (1983),
undertaken to document the nature and extent of
international studies and global awareness programs in
elementary and secondary schools in the United States,
the 1300 principals surveyed identified the most
pressing needs in implementing a global education
program was a clear, written definition of global
education and a list of educational objectives
appropriate for various grade levels.

Merryfield and Harris (1992) stated that while
some educators believe that a consensus is critical for
global education to be successful, others feel that
"the existing ambiguity allows for a much needed
flexibility that helps teachers create their own brand of global education based on local educational, political, and cultural contexts" (p. 9).

The Newfoundland Global Education Project views global education as an approach aimed at preparing students for citizenship in a globalized society of today and tomorrow. It seeks to develop in youth the attitudes needed to live effectively in a world possessing limited natural resources and characterized by ethnic diversity, cultural pluralism, and increasing interdependence. It is the aim of the project to infuse a global perspective across the curriculum through "offering learning approaches for teachers so they, in turn, may provide experiences that will increase global understanding for their students" (Tulk, 1991, p.6).

Since varying definitions of global education exist and there does not appear to exist in the literature any evidence on teacher definitions of global education, one portion of the study looked at the definitions for global education written by the participants of the global education course to ascertain (a) whether initially held views were
consistent with those in the literature and (b) whether those views changed. They were asked to write a definition of global education in both the pretest and posttest so that this comparison could be made.

**Effective Implementation of Global Education**

Another area explored in this study is the participants' views on effective ways of implementing global education into the existing school curriculum. Focus was placed on the necessary curricular elements, suitable teaching strategies and influential institutional factors. The literature provides some insight into all three of these areas.

According to Evans (1987), to provide students with a global education:

> There will need to be a conscious effort to include in the curriculum teaching methods and content that will enable students to develop an awareness and understanding of the world as being inhabited by people who are viewed and treated as equals and dependent on others for their existence and for the quality of their existence. (p. 546)

Tye and Kniep (1991) emphasized that global education is about recognizing our increased worldwide interdependence and therefore developing the ability to perspective-take is a necessity. This change in
perspective is supported by Howarth (1986): "Since education cannot serve society without reflecting the realities of society, a global perspective is essential to prepare children for the world in which they live" (p. 2).

It is argued that to accomplish this it is necessary for a global perspective to be infused into the entire curriculum (Kniep, 1986b; Lyons, 1990; Peters, 1987; Tye & Kniep, 1991). It is pointed out by some that the teaching of this new perspective is not to be considered an additional subject but rather an approach, a way of looking at the world (Perinbam, 1989). It should be an integral part of the full curriculum, not just portions of it (Conte & Cavaliere, 1982; Kniep, 1986a, 1989a; Perinbam, 1989).

Developmental considerations.

Muessig (1981) recommended that the availability of global education to all (children and adults) be as continuous as possible for a "... genuine worldmindedness requires a lifetime of living and learning ..." (p. 12). However, the notion of global education being a part of the entire school curriculum has raised concerns for many teachers and curriculum
planners who question whether such complex global concepts can be taught to younger children (Morris, 1977).

Evans (1987), Morris (1977), and Schuncke (1984) suggested that not only is it possible to teach global concepts to younger children but also desirable. Schuncke pointed out that the capabilities needed to be a global citizen are both cognitive and affective in nature and must be developed over time. Since this process is a gradual one, "it is a process which can, and should, begin in childhood and teachers of even the youngest children should see its facilitation as one of their responsibilities" (p. 248). As Morris (1977) pointed out:

Once the child, early in his or her development, begins to perceive the global society of humankind, no matter what level of simplicity, perspectives on global interdependence and global resource systems, as well as other more complex organizing concepts, are much more likely to follow. (p. 45)

Evans (1987) reported on research conducted in this area which suggested that not only are elementary children developmentally ready, but, they are at a more appropriate age for introduction to global concepts for they develop more positive attitudes towards others.
Berman (1990) also supported this idea suggesting that the development of social responsibility be started very early in the child's life. Children construct their relationships with the world very early in life and parents, teachers and other role models are crucial for each child's formation of a positive and empowered relationship with society.

**Cross-curricular approach.**

Global education often finds its way into the curriculum through the social studies since it is this latter area that focuses on preparing citizens to function in society (Alladin, 1989; Evans, 1987), but as reminded by Alladin (1989):

Global education should not be viewed as the private domain of any one teacher, nor should it be restricted only to the social sciences curriculum. Global education can be included in all subject areas and can be studied in a number of ways. A student will develop a global perspective only if global education runs through the student's entire world experience. (p. 9)

Gilliom and Remy (1978) agreed with this idea, stating that providing a global education is "neither the sole province of the social studies curriculum nor of the school as an institution" (p. 501).

Kniep (1986a) felt that while the social studies may have a special role to play in the development of a
global perspective, school programs will be truly
global when the distinctive content of a global
education is reflected across the curriculum" (p. 446).
Muessig (1981) agreed that global education will be
most effective when treated in a multidisciplinary
fashion. Peters (1987) suggested that a global
perspective can be infused into the entire curriculum
by fusing occasional lessons that spin-off from weekly
current event discussions, periodic lessons to
compliment/reinforce instruction, units related to
themes, or a blending of concepts/knowledge/skills from
several subjects.

Nature of global education curricula.

For global education curriculum to be successful,
the design and the development of curriculum will need
a new makeover (Carson, 1989). Presently, most
curriculum development designs demand clear objectives
supported by appropriate content, however, as Carson
(1989) pointed out, a global perspective puts us into
an era of transformation:

There is a shift away from viewing curriculum as a
static document made up of objectives and
prescribed content and methods...curriculum is a
dynamic process consisting of a creative interplay
between the prescribed curriculum and the content
that is constructed by teachers and students at they engage the questions. (p. 53)

Carson suggested that learning must be an ongoing, interpretive process. Kniep (1989a) commented that if the school is to respond to the challenges of world survival and to help students understand their role in a global society then "we must teach curricula rooted in and reflecting today's global realities" (p. 12).

Collins and Zakariya (1982) have very similar notions to these. They stated that effective global education must be an interdisciplinary, continuous process which focuses on the world as a system with a heightened sensitivity to the interactions of the various parts of the world system and the consequences of those interactions.

Wood (1974) also referred to the need for a new design to the curriculum and the "rehabilitation" of old courses at the high school level. The attitudes students develop will probably stay with them for the rest of their lives and they will be the decision makers of tomorrow.

A new framework will need to be provided where teachers are empowered to develop an active curriculum with students also being empowered to decide, learn,
cooperate, act and reflect. Lyons (1990), the Project Co-ordinator for the Ontario Teacher's Federation Project, supported this same idea by stressing the importance of "empowering students to work for change both as individuals and within groups. Students need to have a sense of hope that whatever activity they partake in will have meaning and will achieve their self-directed goals" (p. 209).

Evans (1987) reiterated this notion, stating that for many students "the importance of an issue is related to its immediacy. If they can see a direct relation between what is taught and their daily lives, they view what is taught as of value" (p. 547).

The curriculum must be looked upon in a more holistic manner with integrated and interactive learning strategies (Bowers, 1990). The teaching of knowledge alone is no longer sufficient. It must intertwine knowledge, attitudes, values and skills so that students can learn how to analyze and formulate personal stances on global concerns (Tucker, 1991).

To accomplish this it is crucial that teachers select accurate, relevant and appropriate resources to provide a global perspective. Materials must emphasize
similarities not differences among countries, interdependence and the meeting of common needs (Evans, 1987).

Teaching strategies for global education.

Pike and Selby (1990) recommended that in addition to the type of resources used, the types of activities utilized must "effectively tap and develop human potential" (p. 93). They also suggested that we must move away from the frontal top-down teaching modes and the vertical classroom relationships by applying activities which "redress the hegemony of frontalism within the classroom and to help teachers fuse relevance with diversity" (p. 93). These activities include openers and pace-changers, activities for enhancing self-esteem, group discussions, experiential activities, role playing, simulations, action, and feedback and evaluation techniques. Pike and Selby identified these as being important for:

Their emphasis is on co-operation, dialogue, experience, interaction and participation; they are underpinned by the democratic and humane values of fairness, freedom, tolerance, respect for truth and respect for reason. They are based upon a profound acceptance and recognition of the untapped potential, uniqueness and richness of experience that each student brings to the classroom. (pp. 93-94)
Muessig (1981) stressed the importance of instructional materials being "rich and variegated" (p. 13). Since children and adults have heterogeneous needs, interests, abilities, talents, advantages, problems, aspirations and so forth, it follows that a variety of methods and materials be designed to individual differences.

Similarly, Peters (1988a) stated that "active student exposure to/acquisition of BASIC concepts/content/knowledge/skills (and their subsequent application for enrichment and refinement) is achieved through direct and vicarious learning experiences" (p. 96). Peters (1988b) also recommended that regardless of the strategies used, they should focus on cultural, natural and social surroundings; the instruction should be field-based whenever possible; community resources should be utilized; and a field-based learning laboratory created. Lyons (1990) agreed that other sectors of the community must be involved. Global education is education for change. Schools can no longer act in a vacuum.

Rash (1990) emphasized the need for an intimate relationship between the media and global education so
that the most up-to-date information is provided so students are educated about global issues and geography. Videos, texts, simulations, computer networks and first hand experience have been recognized by Rash as being important so "the next generation will be considerate of cultural nuances, cognizant of common global values and truly aware of the world and its peoples" (p. 21).

Carper (1986-87) reported on her experiences with teaching global education and suggested "students need to wrestle with the topics themselves" (p. 80). This means allowing for discussions, exchange of ideas, and creative problem-solving exercises rather than quizzed facts to be graded or lectured. Carson (1989) similarly suggested that the two most important intentions of global education are to create an openness and to foster a sense of responsibility.

Global education recognizes that preparing students to operate in their own small community is no longer enough. Students today are graduating from a classroom into a much larger community, one whose boundaries are not limited by a city or even a nation: they encompass the world in its entirety. (Roche, 1986-87, p. 68)

With this in mind, Roche (1986-87) emphasized the importance of global education as "something to be
learned and applied most importantly outside the classroom" (p. 69). It must be experiential, students both seeing and doing wherever possible, making it relevant by applying personal knowledge, concern and action (Lyons, 1990). Ramler (1991) emphasized the need for "anticipatory learning" (p. 45), the need to move beyond the transmission of knowledge to focusing on problem finding and problem anticipation.

One of the elements of this present study was the exploration of participants' knowledge of a set of teaching strategies consistent with those recommended in the literature for the successful implementation of global education.

**Institutional factors.**

This study also explored the institutional factors which might be considered by the participants as positive and negative influences in trying to implement a global perspective into the curriculum and whether any of these views changed over the course of the institute. There appears to be a limited amount of research related to institutional factors.

A case study by Cogan (1978) of the global education program developed by Alcott Elementary
School, Chicago, produced several guidelines which may help in successfully implementing such a program including:

- support by the principal or other appropriate administrator is crucial;
- a thematic format for the program will contribute to its success;
- the program should capitalize on the varied nationalities and ethnic backgrounds of the students;
- parents and the school community in general should be involved;
- an underlying respect and appreciation for the worth and dignity of each individual should be established;
- a good supply of resource and supplementary materials is essential; and
- provision be made for the extension of formal teaching/learning activities.

Gilliom and Remy (1978) recommended very similar ideas for a fresh approach to global education for the elementary school. They suggested global education involve all areas of the elementary curriculum, capitalize on the local community as a laboratory and look to other institutions for support.
Efforts by schools in Muscatine, Iowa to commit to global education led them to identify five important elements which they felt were necessary to help obtain their goals: "community partnerships, teacher networking, teacher ownership of the process, school board and administrative support and state initiatives" (DeKock & Paul, 1983, p. 48).

In a study by Tucker (1983) on teacher attitudes towards global education in the Dade County Public School System, the teachers identified positive and negative factors which they felt would influence their ability to implement global education into their schools:

The positive factors (+65%) included: local school administrators, professional organizations; faculty in the school; the school district's central administration; and local colleges and universities. Somewhat less positively viewed (+50% to +64%) were: school counsellors, parents, the local teacher education center, the back to basics push, and the students themselves. Negative factors (-50%) included: class size; scheduling/time factors; standardized achievement tests in social studies; media availability; monetary incentives; opinion that social studies is less important than other school subjects; and, the most aggravating obstacle to change - the lack of textbooks and supplemental learning materials (p.71).

In another study by Morehouse and Collins (1983), the 1300 principals involved identified three main
obstacles to the implementation of a global education program: 1) insufficient time to cover present priorities; 2) competing higher priorities; and 3) lack of adequate funding.

Role of the teacher.

Giving young men and women the skills and determination they need to cope with a highly interdependent world is a great challenge for our schools and the person mainly responsible for that happening will be the classroom teacher. In accepting this challenge, the teacher must first and foremost act as a role model for the students (Gilliom, 1981). We cannot expect to develop global attitudes within our students if we do not develop them ourselves. As Perinbam (1989) pointed out, "more than any other group in society, teachers are shaping the next century through the lives of their students, through their attitudes, behaviour and values ...Teachers are laying the foundation of a new global society" (p. 25).

To take on this challenge, teachers have to realize that just as the design for curriculum must change, so must their role in the classroom. A summary
of the profile of a global teacher, provided by Pike and Selby (1990), included:

1. The global teacher is 'global centric' rather than 'ethnocentric' or 'nationcentric'.
2. The global teacher has a cross-cultural perspective.
3. The global teacher is concerned about the future.
4. The global teacher is also a facilitator.
5. The global teacher is concerned with the development of the whole person and strongly believes in human potential.
6. The global teacher sees learning as a lifelong process.
7. The global teacher tries to be congruent.
8. The global teacher seeks to shift the focus of power in the classroom.
9. The global teacher is a community teacher.

As Gibbons and Neuman (1985-86) pointed out, rather than being the traditional subject-matter authority the teacher becomes a "learning leader" (p. 74). The teacher guides the students through a process to help them decide, learn, cooperate, act and reflect.
The teacher shows the student how to make informed decisions but does not make them for them. Likewise, Evans (1987) believes students must develop the skills necessary to find information for themselves and they must be given the opportunity to question and inquire. DeKock and Paul (1989) contend that "from a teacher's perspective, global education is as much a change of vision or perception as it is a change of activities or curriculum. It means looking intentionally for ways to connect instruction to the rest of the world" (p. 47).

Ramler (1991) suggested that "there is no recipe for a global curriculum to fit any given school or any given region" (p.46) and Gilliom (1981) recommended that no one should "be dulled into thinking that global education, no matter what form it might take, can solve the world's problems. It might, however, help us deal with the problems a bit more realistically and to behave towards one another in a more tolerant and humane fashion" (p.172). Alexandre (1990) shared similar ideas stating that while "global education has no blueprint...each search begins with the fundamental commitment to prepare students for active involvement in their future" (p. 6).
Teachers' attitudes toward implementing a global perspective.

Another one of the major questions explored in this study is whether participants' attitudes changed towards incorporating objectives that reflect a global perspective into their teaching as a result of the institute. This area is of interest for while there have been some studies done on teachers' attitudes towards implementing a global perspective into their teaching, those appear to be limited in number.

One study of retreats for teachers throughout New Mexico, conducted by Otero (1983) found that while teachers and administrators were supportive and teachers wanted to prepare students for the future, they felt they didn't know how. They didn't know how to "organize themselves to teach the needed skills, values, and knowledge at the school level and, consequently, could respond to global education only if it were to fit into already delineated classroom procedures, curriculum guides, courses or textbooks" (p.99).

The Dade County Public School System study by Tucker (1983) on teacher attitudes towards global
education resulted in some similar findings. Global education was again viewed favourably by 90% of the participants, in that they saw it as an important part of the social studies, a necessity, increasing in importance in the future and needing greater emphasis than is currently in the social studies. However, less than half of the participants (42.4%) felt that social studies teachers are generally well-qualified to teach global education. "Apparently, there is a wide gulf between the felt need, indeed the inevitability that global education will become stronger, and insecurity with the subject matter and methodology" (p.67).

Tucker (1983) also reported that when teachers were asked to rank topics/issues which are most used in the social studies compared to those that should be, the same topics/issues ranked in the top five but not in the same order. These topics included cross-cultural communication, inflation/economic problems, human rights, the environment, and Third World issues. In addition to this, there were three areas where more emphasis was urged than is now the case: future studies, nuclear proliferation, and Third World issues. "This implied shifting of priorities reflects the
trade-offs that must be made frequently in a up-to-date global education curriculum based upon global issues" (p.71). Tucker commented that while some teachers will welcome these choices others will become frustrated.

Vocke (1985) examined the perceptions of two selected populations of social studies teachers concerning the implementation of the world-centered/global education approach in the secondary social studies curriculum. He found that teachers in the two populations: 1) did not organize their instruction around a clear definition of global education; and 2) were unfamiliar with global education activities, materials and organizations that provide further information about global education. "As a result, efforts at incorporating global education into the curriculum have been modest and piecemeal" (p. 3314-A).

In a study conducted by Wright and Van-Decar (1990) it was found that the majority of the midwestern teachers (N= 103) enrolled in graduate courses in elementary education and comparative education supported the goals of global education but had little to offer in the way of implementation. They felt that
this was due to a lack of academic preparation for the task, feelings of being pressured by competing demands on classroom time and minimal opportunities they had to experience other cultures first hand.

Silvernail (1979) focused on teacher attitudes toward a global perspective and their impact on students. Silvernail commented that possibly one of the major stumbling blocks to changing students' attitudes is teachers themselves, for their attitudes, beliefs and values influence the selection of materials and the design of classroom learning experiences.

"Therefore, the key to reach more students may be in helping teachers acquire future world perspectives" (p. 1).

Otero (1983) stated that "helping schools improve will mean assisting the local school in responding to changes that have yet to occur" (p. 99). He suggested that since learning will be different due to this, there needs to be a new view of the educational process and thus school improvement must take on new meaning whereby it becomes a process sensitive and responsive to an individual school's culture and condition.

Alladin (1989) stressed that "educators and teachers
need to realize that global education requires a commitment, and they should provide a leading role in its dissemination" (p.8).

**Teacher Education for Global Education**

While much has been written about global education goals, issues and perspectives, there is little information concerning global education programs for teachers. Although there has been considerable progress in this area in the last 20 years, there is still a long way to go before all teacher education programs prepare teachers adequately in global perspectives (Merryfield, 1991). Merryfield and Harris (1992) contend that "there is a real need for much more research on the process of teacher education in global perspectives and the ways teachers apply such knowledge to their own instruction" (p. 61).

Merryfield (1991) suggested that generally, "teacher education for in-service teachers consists largely of short presentations or workshops. Given the complexity of teaching from a global perspective, teachers need in-depth study" (p. 18). Cogan (1977) stressed the importance of education for in-service
teachers for they "have often developed firm patterns of teaching behaviour, their instructional schedules are overcrowded, and there may be little incentive for them to re-educate themselves in another area" (p.49). Thus, he believes it is crucial that education for inservice teachers demonstrate how global education concepts and skills will improve their instructional program. While this may be a difficult task, Cogan believes that it is certainly not an impossible one.

Evans (1987) contends that before teachers can attempt to initiate a change in the classroom, they must "develop an awareness of the need to provide a global perspective within the curriculum and...learn how to provide students with such a perspective" (p.550).

Gilliom & Farley (1990) contend that "if the horizons of pupils are to be broadened and if a world view is to be encouraged, teachers must be better prepared to carry out that charge (p. 73). Teachers in the present educational systems are not adequately prepared to implement global dimensions into their classroom curriculum (Alladin, 1989). In a survey of
American teacher education programs by Merry Merryfield (1991), program personnel noted that:

1) pre-service and in-service teachers have little or no knowledge of global perspectives and the information on which these perspectives depend;
2) many teachers are not interested in teaching about global concerns, because they perceive such issues to be either irrelevant or threatening;
3) teachers perceived global perspectives as non-essential for a quality basic education for all;
4) there was a lack of leadership and support for global perspectives in school districts. (p.17)

The survey also suggested that secondary social studies teachers were not being prepared to teach about the environment, technology, international governmental organizations, multinational corporations, foreign investment and other such important parts of the 'global picture'.

To help teachers with their new role of broadening student horizons, training will have to be provided for both those who are presently teaching, as well as those who are in training. Cogan (1977) suggested:

- preservice teachers need (1) a broad general education;
(2) exposure to a variety of methods and materials containing a global dimension; (3) experiences containing a global dimension; and (4) personal experiences and student teaching abroad. For the inservice teachers, Cogan recommended (1) upgrading skills and behaviours relating to global education; (2) workshops and so forth, whereby teachers are shown how to integrate the newly acquired skills and behaviours into the curriculum; and (3) professional travel.

Tooke (1986–87) pointed out that provision must be made for teachers to discuss concerns and share ideas as well as for opportunities to receive assistance in developing classroom strategies. Networking is imperative so that the teacher is provided with support and does not feel isolated. Resource centres, newsletters, consulting facilities, all allow the teacher to feel part of a larger design (Merryfield, 1991). Bowers (1990) stressed the importance of providing the time and encouragement that nurtures and sustains reflection if teachers are to gain professional empowerment.

In a study by Merryfield (1992b), of six exemplary teacher education programs in global education,
teachers and administrators identified what they believed to be important characteristics of effective teacher education programs. They included: 1) scope of program offerings (the actual instructional experiences) were of paramount importance; 2) the program’s collaboration and communication with other institutions and organizations; and 3) opportunities within the program for professional growth and leadership. "Perhaps the most important implication of the study is that teacher educators need to structure learning experiences to include time for reflection, planning and networking with other educators and organizations" (Merryfield, 1992a, p.123).

**Effects of teacher education on teachers’ attitudes.**

The review of the literature is somewhat limited concerning the effects of teacher education for global education on teachers’ attitudes. However, a study by Barnes and Curlette (1985) of graduate education students taking a global education course found that the students became more favourable toward global mindedness and world order; less favourable toward the nationcentric perspective, becoming more aware of world
problems and issues and more supportive of world government; and their attitude toward patriotism was unaffected. They suggested that this was significant for as suggested by Shaver, Davis and Helburn (1979) and Gross (1977), cited in Barnes & Curlette (1985), teachers may reflect their beliefs in the classroom, and thus more global-minded teachers will teach in ways consistent with these views, passing this perspective on to their pupils.

Williams (1988) studied the influence of a two-day global studies inservice workshop on the attitudes of secondary school teachers. His findings revealed that the two-day workshop did have a small but significant effect on the participants' global attitudes. Similar to Barnes and Curlette (1985), Williams found that attitude level of worldmindedness in the areas of education, social justice, race and religion were raised. However, nationalistic tendencies of patriotism and chauvinism were reinforced. Williams recommended the need for longitudinal research through a delayed posttest to ascertain any changes in global attitudes.
Tarolli (1984) studied the effects of a global education training workshop on intern teachers' development of a global perspective and level of acceptance of selected global and nonglobal school-wide curriculum goals was determined. He found significant gains in the participants' world-mindedness in both the posttest and delayed posttest administered two months later. This indicates that the gains were sustained at least over that brief period of time. Tarolli (1984) also recommended that there is the need for future research focusing on teacher training for global education and how that training impacts on the global education of elementary and secondary students.

Teacher education is obviously a key ingredient in the attempt to infuse a global perspective into the curriculum. In this regard, Merryfield (1992a) made two recommendations: "Teachers educators need to understand the instructional realities of the practitioners with whom they work. Practitioners need to challenge teacher educators to provide the knowledge, time and support services to ensure that classroom application is an integral part of teacher education" (p.13). Also, Merryfield and Harris (1992)
pointed out that "each teacher education program in global perspectives is unique as it grows out of the personalities, experiences, knowledge, needs and constraints of its local context" (p. 57). This present study builds on the work in this area and provides some insight into the effects of teacher education on teachers' attitudes.

Summary

The literature on global education tends to be concentrated on defining global education, emphasizing the need for global education and describing how it can be effectively infused into the school curriculum. Much of that work is of an advocacy nature. In particular there is a dearth of empirical research on the effects of global education workshops/institutes/courses on the knowledge and/or attitudes of teachers. Given the limited evidence relating to the questions posed in this research and given that the evidence which does exist leads to the particular questions being examined, it is hoped that this study adds to the existing body of knowledge on global education.
Chapter III
Design of the Study

Purpose

The purpose of this study was to gather data from a group of teachers enrolled in a global education institute, in order to determine if the six week course was effective in helping them: a) change their attitudes toward incorporating objectives, that reflect a global perspective, into their teaching; b) gain a better understanding of how to effectively implement a global perspective into their curriculum by i) identifying the necessary curricular elements, ii) increasing their competence in teaching strategies recommended for teaching from a global perspective, and iii) identifying the institutional factors which may act as positive or negative influences; and c) develop a clearer definition of global education. In addition, it was the purpose of the study to determine which components of the graduate course participants felt were most worthwhile.
Design and Population

This study was carried out using a pretest-posttest control-group design. The two groups of participants involved were the experimental group which was exposed to the institute on global education and the control group which received no intervention except the pretest and posttest.

The experimental group consisted of the 23 participants who were enrolled in the six-week graduate global education institute. The control group was comprised of 24 graduate students who were enrolled in six-week courses at the graduate level in the areas of curriculum development, curriculum evaluation, and social studies at the primary/elementary levels, but were not directly exposed to global education.

Registration for the global education course was on a voluntary basis, therefore, there was concern that those students might exhibit differences from the control group even before enrolling in the course. Campbell and Stanley (1963) refer to this as differential selection, one of the possible threats to internal validity. To determine whether, in fact, there were any such differences between the treatment group
and other graduate students at the onset of the study, a comparison was made of the two groups' responses to the first two sections of the pretest: Part I (biographical data) and Part II (teaching emphasis on objectives with a global perspective). These comparisons helped in the examination of the issue of differential selection and as a result greater confidence could be placed in the fact that observed changes are associated with the experimental treatment (Borg & Gall, 1989).

**Description of the Institute**

One of the main aims of the Newfoundland Global Education Project is to infuse a global perspective across the curriculum through "offering learning approaches for teachers so they, in turn, may provide experiences that will increase global understanding for their students" (Tulk, 1991, p.6).

As previously mentioned, conferences, inservice programs, presentations and networking were carried out to begin the fulfilment of this goal. During Memorial University's Summer Session 1992 this process continued through Global Education 6671, a course for graduate
students. The six-week graduate global education course was conducted three times per week for two-hour intervals (total of six hours per week of class instruction).

The focus of this course was to increase teachers' understanding of global education through study and discussion of global education concepts, issues and perspectives, as well as through the development and production of resource materials that would help fill voids in terms of global awareness within present school programs. Particular attention was paid to approaches applicable to the infusion of a global education approach into curriculum areas of the public school.

More specifically, the course required participants to: a) research a global issue (eg: overpopulation, global warming, racial discrimination), prepare a written paper on the topic and give a short presentation of their findings to the class; and b) in small groups, select one of the researched global issues, develop a curriculum unit suitable for some area of the Newfoundland school curriculum and present
several of the lessons within the completed package to the other participants.

**The Questionnaire**

Before designing the questionnaires, existing instruments (e.g., Bingham, 1979; Collins & Mitsakos, 1978; Merryfield, 1992a; Smith, 1982; Tucker, 1983, 1985-86) were examined and several were employed to provide a pool of items for the construction of the instruments for this research. Specific references to these existing instruments are made later in this section.

The pretest instrument (see Appendix A) was composed of three parts. Part I requested general biographic information about the subjects such as level of teaching experience, previous exposure to global education, and whether they were teaching subjects already targeted for a global emphasis.

Part II of the questionnaire was subdivided into two components. The first consisted of the 29 items focusing on the degree of emphasis placed by participants on teaching objectives with a global perspective. Those 29 statements included 16 objectives
consistent with a global perspective (e.g.: each person has a unique perspective on the world that may not be shared by others) and 13 items at variance with that perspective (e.g.: we should strive for loyalty to our country before we can afford to consider world brotherhood). It was decided to counterbalance this section of the questionnaire in this manner because statements emanating from a global perspective can be viewed as 'motherhood' statements and hence possibly difficult to disagree with. Participants ranked each item on a four point Likert-type scale ranging from 'no extent' to 'great extent'.

The 16 statements which reflected a global perspective were selected after reviewing existing instruments by Collins & Mitsakos (1978) and Smith (1982) from the resource book, Evaluating Global Education: Sample Instruments for Assessing Programs, Materials and Learning and Jane Bingham's The Acceptance of Global Education Scale (1979). The 13 contradictory statements were partially based upon Bingham's scale as well as the World-Mindedness Scale.

The second component of Part II asked participants to rank on a four point Likert scale the degree of
emphasis they placed on teaching a specific set of global issues.

Part III of the questionnaire examined participants' opinions in a number of areas. The first was related to curricular factors which might affect the implementation of a global perspective into the curriculum (eg: global education should mainly be the responsibility of the social studies). Participants were asked to rank these items from 'strongly disagree' to 'strongly agree' on a four point Likert-type scale. The participants were also asked to rank their feelings of competence in various related teaching strategies (eg: value clarification, role-playing and concept formation) from 'very weak' to 'very strong'. Finally they were asked to rank the positive and negative institutional factors they felt might impact on their attempts to implement a global perspective into their teaching (eg: class size, preparation time and resources available) by ranking them on a four point Likert-type scale from 1 (negative) to 4 (positive). The final component of Part III asked the participants to write a definition of global education.
For Part III of the questionnaire, dealing with the implementation of global education into the curriculum, a number of sources were helpful. Section A, dealing with curricular issues, was compiled based upon key elements found throughout the literature on global education and as delineated in Chapter II. Section B, assessing the level of perceived competence in a variety of teaching strategies, was based on an instrument developed by Tucker (1985-86) in Evaluating Global Education: Sample Instruments for Assessing Programs, Materials and Learning. Section C, dealing with positive and negative influences on the implementation of global education, was designed around results from studies by Tucker (1983) and Merryfield (1992a).

The posttest instrument (see Appendix B) was essentially a parallel of the pretest. There were, however, some necessary differences: 1) the biographical questions were excluded, with the exception of the identification code; 2) the questions from Part II and III of the pretest were reworded slightly, tenses were changed; 3) an additional question was added to the posttest for the treatment
group to determine what components of the course they viewed as worthwhile in helping them gain a clearer understanding of global education; and 4) provision was made to permit participants to recommend any changes they would make to the course.

**Validity and reliability.**

The content validity of the various components and statements of the questionnaires were checked by three experts knowledgeable in this field. All three individuals examined the questionnaires and approved the content as being suitable and applicable for this study.

The reliability of the questionnaire was determined by conducting the Kuder-Richardson method of rational equivalence test on Part II of the instrument. This method is used to estimate the internal consistency of the questionnaire (Borg & Gall, 1989). A post-hoc procedure was conducted due to the necessity of having the questionnaire ready by the commencement of the institute. The alpha coefficient for the reliability analysis was .9619. This suggests that the reliability of the instrument was extremely high and thus relatively free of error variance.
Administration of the questionnaire.

As indicated earlier, in order to gather data on the effects of the graduate course on teachers' knowledge of and attitudes toward global education, a researcher-developed pretest and posttest were administered to all participants at the commencement and conclusion of the course. Permission to carry out the pre- and posttests was granted by the two cooperating instructors for the course (see Appendix C). On the first day of class, an oral explanation of the study was given to the teachers involved, accompanied by a letter requesting their participation (see Appendix D).

The first two sections of the pretest and posttest (biographical data and emphasis placed on objectives with a global perspective) were also administered to the control group at the beginning and end of the six weeks. This was done in order to determine whether or not there were any initial differences between the two groups in their knowledge of and attitudes toward global education as well as to determine if any changes occurred over the six week period. The participants of the control group also received an oral explanation of
the study and an accompanying letter requesting their participation (see Appendix E).

**Statistical Analysis**

To determine whether there were any significant differences between the experimental and control groups at the beginning of the study, a comparison of Parts I and II of the pretest was conducted. This was done by first conducting a comparison of each group's biographical data (Part I); more specifically, the following items were compared: a) years of teaching experience, grades taught and university major; b) exposure to global education; c) sources for following current affairs and degree to which they were followed; and d) courses which they had taught in the Newfoundland school system which had already been targeted for a global emphasis. Then, there was a comparison conducted of the pooled variance estimate t-test of their means for Part II, the extent to which the participants perceive they incorporate objectives, that reflect a global perspective, in their own teaching.
As explained previously, the first component of Part II was subdivided into 16 items reflecting a global perspective and 13 reflecting an alternate viewpoint. To obtain the means for each group, the scores for the 16 statements reflecting a global perspective were totalled and divided by 16 to obtain the average. The score for the 13 contradictory statements was determined in a like manner. The overall mean score, which represented the degree to which a global perspective is emphasized in teaching, was obtained by subtracting the mean score of the contradictory statements from the mean score of the statements reflecting a global perspective.

The second component of Part II, emphasis on global issues, was also compared for the two groups. This was done by obtaining the mean score for each group and conducting another pooled variance estimate t-test. The same two t-tests were conducted again at the end of the study to determine if differences existed between the two groups at the end of the six-week period.

There was also an attempt to determine if any changes occurred within the experimental and control
groups independently over the course of the six weeks. This was done through a comparison of the two sections of Part II (Items 1-29; Item 30) using a t-test for paired samples, comparing their pretest means to their posttest means. To conduct this comparison, using the t-test for paired samples, only the scores of those who responded to both the pretest and the posttest were used.

Scores for Part III of the pretest and posttest were compared by calculating the means for each level of the Likert scale for each question and comparing the pretest means with those of the posttest. For the open-ended questions, definitions of global education and recommendations for changes to the course, the responses were examined and major themes summarized.
Chapter IV
Results of the Study

The overall purpose of the study was to determine if a six-week global education institute had an effect on teachers' knowledge of and attitudes towards global education. To determine if there was an effect four main questions were posed:

1) Was there a change, during the course, in participants' attitudes toward incorporating objectives that reflect a global perspective into their teaching?
2) Was there a change, during the course, in the opinions of participants with respect to: a) the curricular elements they consider necessary for the effective implementation of global education into the school curriculum; b) their perceived level of competence in those teaching strategies which are recommended for teaching from a global perspective; and c) the institutional factors which they consider to be positive or negative influences in trying to implement a global perspective into the curriculum?
3) Was there a difference between definitions of global education written by participants at the beginning of the course from those written at the end?
4) What components of the course did the participants feel were most worthwhile in helping them gain a clearer understanding of how to teach with a global perspective?

In order to answer those questions an examination of the degree of equivalence between the control and treatment groups was undertaken. To do this a comparison was made of the two sets of biographical data as well as the extent to which the two groups perceived they incorporated objectives that reflected a global perspective into their teaching. The following sections provide those comparisons.

**Part I: Biographical Data**

Since the individuals who enrolled in the graduate global education course did so on a voluntary basis, it was decided to select a comparison control group to determine whether the global education group differed initially from the general population of teachers enrolled in graduate study. A comparison of Part I of
the questionnaire was undertaken to check for such differences.

**Teaching experience.**

As can be seen from Table 1, both groups were quite similar with respect to teaching experience, the largest percentage having between 0-5 years. The global education group had 43.5% of their participants falling into this category and the control group had 33.3%.

**Table 1**

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Global Education Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>10 (43.5)</td>
<td>8 (33.3)</td>
</tr>
<tr>
<td>6-10</td>
<td>6 (26.1)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>11-15</td>
<td>2 (8.7)</td>
<td>5 (20.8)</td>
</tr>
<tr>
<td>16-20</td>
<td>2 (8.7)</td>
<td>5 (20.8)</td>
</tr>
<tr>
<td>21-25</td>
<td>2 (8.7)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>25+</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>
Grade levels and subject areas.

As shown in Table 2, the participants span all grade levels of the school system with the greater concentration of both groups being senior high teachers (Level I - III).

<table>
<thead>
<tr>
<th>Grade Levels</th>
<th>Global Education Group # (%)</th>
<th>Control Group # (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary (K-3)</td>
<td>1 (4.3)</td>
<td>4 (16.7)</td>
</tr>
<tr>
<td>Elementary (4-6)</td>
<td>3 (13.0)</td>
<td>2 (8.3)</td>
</tr>
<tr>
<td>Intermediate School (7-9)</td>
<td>0 (0)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>Senior High Level I - III</td>
<td>8 (34.8)</td>
<td>10 (41.7)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (13.0)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>-- K-6</td>
<td>3 (13.0)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>-- 4-9</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>-- 7-III</td>
<td>4 (17.4)</td>
<td>2 (8.3)</td>
</tr>
<tr>
<td>-- K-9</td>
<td>0 (0)</td>
<td>1 (4.2)</td>
</tr>
</tbody>
</table>

Surprisingly, the question eliciting information regarding the participants' main teaching areas
revealed that the majority did not select one of the five subject areas listed (Mathematics, Language Arts, Foreign Language, Social Studies and Science) but rather selected the 'other' category. For the global education group, 73.9% fell into this category and for the control group there was 58.3% (see Table 3). The subjects reported in the 'other' category covered a wide range of areas including music, business, religion, kindergarten, computers, and physical education. Four of the participants indicated that at their grade level they covered all of the main subject

<table>
<thead>
<tr>
<th>Subject</th>
<th>Global Education Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>0 (0)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>Language Arts</td>
<td>1 (4.3)</td>
<td>4 (16.7)</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2 (8.7)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Science</td>
<td>3 (13.0)</td>
<td>2 (8.3)</td>
</tr>
<tr>
<td>Other</td>
<td>17 (73.9)</td>
<td>14 (58.3)</td>
</tr>
</tbody>
</table>
areas. Two participants from the global education group listed "administration" and "program coordinator" as their main responsibility.

**University major/concentration.**

Participants were also asked to indicate their university major or concentration and as indicated in Table 4, each group represents a wide variety of areas. Neither of the groups is heavily weighted toward any particular discipline.

**Exposure to global education.**

The Newfoundland Global Education Project had been in place approximately one and half years prior to this study. There was, therefore, a question as to how much exposure to global education the participants enrolled in the global education course had, and if this differed greatly from those in the control group.

The majority of the participants in both groups reported that they had had no exposure to global education either through conferences, workshops or inservice sessions prior to completing the questionnaire. Of the global education group, 65.2% reported having no exposure while 34.8% reported having had some exposure.
<table>
<thead>
<tr>
<th>Major/Concentration</th>
<th>Global Education Group # (%</th>
<th>Control Group # (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>2 (8.7)</td>
<td>6 (25.0)</td>
</tr>
<tr>
<td>Biology</td>
<td>4 (17.4)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>Phys. Ed.</td>
<td>3 (13.0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1 (4.3)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Math</td>
<td>2 (8.7)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Primary - Psychology</td>
<td>3 (13.0)</td>
<td>4 (16.7)</td>
</tr>
<tr>
<td>Science</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>History</td>
<td>3 (13.0)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>Elementary</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Geography</td>
<td>1 (4.3)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>1 (4.3)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Education</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Geology</td>
<td>0 (0)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>0 (0)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>French</td>
<td>0 (0)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Music</td>
<td>0 (0)</td>
<td>1 (4.2)</td>
</tr>
</tbody>
</table>

For the control group, 91.7% reported having no exposure while 8.3% reported some exposure.

Most of the participants who did have exposure attained it through a half-day or one-day session organized by the Newfoundland Global Education Project. During that session, an overview of global education
was given and there was discussion on how global education could be integrated into the present school curriculum. Two of the participants of the global education group had more extended exposure through conferences of 2 or 3 days' in length while three others received only brief exposure through a presentation given in a previous graduate course or conference. While there appears to be a little more exposure to global education in the treatment group, that exposure was limited and therefore the groups are relatively similar with respect to their exposure to global education.

**Courses targeted for a global emphasis.**

Given that the Newfoundland Project had been operating for approximately one and half years prior to the global education graduate course being offered, it was possible for participants to have been exposed to global education through involvement in teaching one of the four school programs specifically targeted for a global education emphasis. These four courses were: Grade 8 Social Studies, *Exploring World Cultures*; World Problems 3204; Grade 4 Social Studies *Selected*
Communities of Canada and the World; and Environmental Science 3205.

The participants' prior involvement in each of these four courses is summarized in Table 5. As apparent from this table, there had been a minimal amount of teaching of any of these four courses by the participants. In fact, more than 90% of the individuals in this study had no exposure to global education through involvement in these four targeted courses. In the global education group (experimental group), only five of the participants taught one or

<table>
<thead>
<tr>
<th>Course</th>
<th>Global Education Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 4 Social Studies</td>
<td>0 (0) 21 (100)</td>
<td>1 (4.3) 22 (95.7)</td>
</tr>
<tr>
<td>Grade 8 Social Studies</td>
<td>1 (4.8) 20 (95.2)</td>
<td>0 (0) 22 (100)</td>
</tr>
<tr>
<td>Environmental Science 3205</td>
<td>2 (9.1) 20 (90.9)</td>
<td>1 (4.5) 21 (95.5)</td>
</tr>
<tr>
<td>World Problems 3204</td>
<td>2 (9.1) 20 (90.9)</td>
<td>1 (4.3) 22 (95.7)</td>
</tr>
</tbody>
</table>
more of these targeted courses and in the control group there were three such participants.

**Travel and other sources of information on global issues.**

It was of interest to determine whether both groups relied on different sources for information regarding global issues. First participants were asked to indicate the extent of their travel. The majority of participants from both groups spent a minimal amount of time in countries outside of Canada. Twelve of the global education group had spent no time outside of Canada, while the average for all participants in that group was 2.8 weeks. Five of the control group participants had spent no time outside of Canada and the average length of stay for the entire group was 7.7 weeks.

Participants were also asked to indicate other sources of information regarding global issues. The majority of participants reported acquiring their information concerning global issues through television (see Table 6) on a daily or near-daily basis (see Table 7).
### Table 6
Main Source for Acquiring Information on Global Issues

<table>
<thead>
<tr>
<th>Source</th>
<th>Global Education Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># (%)</td>
<td># (%)</td>
</tr>
<tr>
<td>Newspaper</td>
<td>4 (19.0)</td>
<td>5 (20.8)</td>
</tr>
<tr>
<td>Television</td>
<td>13 (61.9)</td>
<td>16 (66.7)</td>
</tr>
<tr>
<td>Magazines</td>
<td>4 (19.0)</td>
<td>2 (8.3)</td>
</tr>
<tr>
<td>Radio</td>
<td>0 (0)</td>
<td>1 (4.2)</td>
</tr>
</tbody>
</table>

### Table 7
Frequency of Following Global Issues

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Global Education Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># (%)</td>
<td># (%)</td>
</tr>
<tr>
<td>Daily</td>
<td>9 (39.0)</td>
<td>13 (56.5)</td>
</tr>
<tr>
<td>5-6 times per week</td>
<td>6 (26.1)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td>3-4 times per week</td>
<td>6 (26.1)</td>
<td>4 (17.4)</td>
</tr>
<tr>
<td>1-2 times per week</td>
<td>2 (8.7)</td>
<td>1 (4.3)</td>
</tr>
<tr>
<td>Less than once per week</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>
Reasons for enrolling in the global education course.

Unlike the previous sections, this one deals only with the individuals enrolled in the global education institute. It presents their reason(s) for enrolling in the course.

The reasons for enrolling in the graduate global education course, seem to fall into two categories. A vast majority (78.3%) indicated a specific interest in gaining a better understanding of global education and how to apply it to their teaching. The following comments are indicative:

-- Have become very interested in the issue of global education and how it impacts on student development and understanding.

-- Try to learn methods of teaching global education from a resource based approach relating to the field of science.

-- Found the presentation attended on global education during a graduate course to be interesting. As a result, here I am to learn more!
-- My school has been chosen as a pilot for global education and as I will be vice-principal this Fall, I thought it would be of great interest and professional concern for me to study this course.

-- The ideas of global education have been talked about in our district in the last 1-2 years. I teach Environmental Science and I would like to know exactly what global education is about and how it can help me in my teaching.

-- Interest (i.e. given I am a Social Studies teacher)

-- It seemed like it would be interesting and applicable to my field.

-- Interest - may be useful in the science courses I teach on environmental issues.

The other students seem to have enrolled in the institute on global education for a variety of pragmatic reasons. The following are suggestive:

-- Part of Masters programme

-- Course elective - interesting concept
Summary of biographical data.

The biographical data for the global education group (treatment group) and the control group reveal that overall the two groups were quite similar at the commencement of the study. The majority of the participants of both groups had between 0-5 years of teaching experience, with the largest number of both groups teaching at the senior high level. The subjects taught and the university majors of the participants of both groups spanned a wide range of areas, travel outside of Canada was minimal for both groups and the majority of participants followed global issues on a daily or near-daily basis mainly through television.

While the amount of exposure to global education prior to the study was minimal for both groups, there were more participants of the global education group (34.8%) who had had some exposure, than there were in the control group (8.3%). This exposure was brief however, generally in the form of a half-day or one-day session organized by the Newfoundland Global Education Project. Furthermore, more than 90% of the individuals involved in this study had no exposure to global education through either of the four courses of the
school curriculum which had been targeted for a global education emphasis.

The participants who enrolled in the global education course did so either as an elective for their Master’s programme or due to a specific interest in gaining a better understanding of global education in order to apply it to their teaching. The majority of the participants did so for the latter reason.

**Part II: Emphasis on Incorporating Objectives Reflecting a Global Perspective**

Given the pretest-posttest control group design of this study, it was necessary to determine whether initial differences existed between the groups in their attitudes towards incorporating global education objectives into their teaching.

For this comparison responses to the first component (items #1-29) of Part II of the questionnaire were analyzed. These questions asked the participants to rank the extent to which they incorporated a set of given objectives into their teaching. As indicated earlier, 16 of those objectives reflected a global perspective (eg. each person has a unique perspective
of the world that may not be shared by others) while 13 others were incompatible with such a global point of view (e.g. we should strive for loyalty to our country before we can afford to consider world brotherhood).

To determine if there was an initial difference between the global education group and the control group, mean scores were calculated for each group based on the individual responses to the first component of Part II of the pretest. To obtain the means for each group, the scores for the 16 statements reflecting a global perspective were totalled and divided by 16 to obtain the average. The score for the 13 contradictory statements was determined in a like manner. The overall mean score, which represented the degree to which a global perspective is emphasized in teaching, was obtained by subtracting the mean score of the contradictory statements from the mean score of the statements reflecting a global perspective. The overall means for the data are shown in Table 8. (For data on individual items see Appendix F for the global education group and Appendix G for the control group).

In terms of emphasis on incorporating objectives with a global perspective, the global education and
control groups had pretest mean scores of .7928 and .7987 respectively. Using these means a t-test of pooled variance estimates was conducted. Results are shown in Table 8. The probability level of .965 (> .05) indicates no significant difference between the pretest scores of the global education group and the control group with respect to the emphasis placed on a global perspective in their teaching.

In a similar fashion, a t-test of pooled variance estimate was carried out on the posttest scores to determine whether the two groups differed at the end of the six-week period. The posttest mean scores for each group and the t-test results are shown in Table 9.

As indicated in Table 9 there was a significant
Table 9

Posttest Scores for Emphasis on Global Perspective

<table>
<thead>
<tr>
<th>Group</th>
<th>M</th>
<th>SD</th>
<th>2-Tail P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Education Group</td>
<td>1.3672</td>
<td>.694</td>
<td>.014</td>
</tr>
<tr>
<td>(Items #1-29)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>.7770</td>
<td>.741</td>
<td></td>
</tr>
<tr>
<td>(Items #1-29)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

difference (p = .014) between the two groups at the end of the six weeks. The means for the two groups, 1.3672 for the global education group and .7770 for the control group, indicate that the global education group placed a much greater emphasis on a global perspective by the end of the institute than did the control group.

The second purpose of the data from the first component of Part II of the questionnaire was to determine if there were any changes for each group independently, during the six-week period, in the participants' attitudes towards incorporating objectives that reflect a global perspective into their teaching.
To ascertain whether there was a change for each group, a paired sample t-test was conducted on the pretest and posttest scores for each group independently. Because the t-test was conducted on the pretest and posttest scores, a two-paired sample t-test was used and only the scores of those participants who responded to both the pretest and posttest could be used. Since not all of the respondents completed this section on both questionnaires, the number of paired samples was reduced. Due to this, the means for the two-paired sample t-test differ from those used in the previous t-test of pooled variance estimates. Results of the two-paired sample t-test are shown in Table 10.

As can be seen from Table 10, the global education group's two-tailed probability was .000 for items #1-29, emphasis on objectives with a global perspective. This suggests that for the global education group there was a significant difference from the beginning of the course to the end with respect to the emphasis placed on objectives with a global perspective. In contrast, Table 10 showing the comparison of the control group's pre- and posttest scores, the probability of .888 indicates no significant difference occurred over the
six week period for the control group's emphasis placed on objectives with a global perspective (items #1-29).

**Emphasis on global issues.**

Again, given the pretest-posttest control group design of this study, it was necessary to determine whether initial differences existed between the groups in the emphasis placed upon specific global issues.

For this comparison responses to the second component (item #30) of Part II of the questionnaire were analyzed. This question asked participants to state the extent to which they emphasized each of a set of 12 global issues in their teaching (eg. human rights, environment, and world trade).
As depicted in Table 11 the global education group had a pretest mean score of 2.4601 and the control group, 2.3696. A t-test of pooled variance estimate to compare these means suggests no significant difference (p > .05) at the commencement of the study between the two groups with regard to emphasis on global issues.

Table 11  
Pretest Scores for Emphasis on Global Issues  

<table>
<thead>
<tr>
<th>Group</th>
<th>M</th>
<th>SD</th>
<th>2-Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Education Group</td>
<td>2.4601</td>
<td>.668</td>
<td>.668</td>
</tr>
<tr>
<td>(item #30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>2.3696</td>
<td>.739</td>
<td></td>
</tr>
<tr>
<td>(item #30)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A t-test of pooled variance estimate was also carried out on the posttest scores to determine if the two groups differed at the end of the six-week period. The posttest mean scores for each group and the t-test results shown in Table 12 indicate that there was also
no significant difference ($p = .135$) between the two groups on the emphasis placed on global issues at the end of the six week period. (Complete data are presented in Appendices F and G).

### Table 12

**Posttest Scores for Emphasis on Global Issues**

<table>
<thead>
<tr>
<th>Group</th>
<th>$M$</th>
<th>$SD$</th>
<th>2-Tail $P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Education Group (Item #30)</td>
<td>3.1894</td>
<td>.744</td>
<td>$.134'</td>
</tr>
<tr>
<td>Control Group (Item #30)</td>
<td>2.8417</td>
<td>.728</td>
<td></td>
</tr>
</tbody>
</table>

As with items #1-29, it was also determined if there were any changes for each group independently, during the six-week period, in the participants' attitudes towards the emphasis placed on specific global issues (item #30).

To ascertain whether there was a change for each group, a paired sample t-test was again conducted on the pretest and posttest scores for each group independently. Because the t-test was conducted on the
pretest and posttest scores, a two-paired sample t-test was used and thus the means differed from those in the t-test of pooled variance estimates. Results of these t-test are shown in Table 13.

Table 13

<table>
<thead>
<tr>
<th>Group</th>
<th>Scores</th>
<th>M</th>
<th>SD</th>
<th>2-Tail P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Global Education Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Item #30)</td>
<td>2.4129</td>
<td>3.1894</td>
<td>.643</td>
<td>.000'</td>
</tr>
<tr>
<td><strong>Control Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Item #30)</td>
<td>2.3465</td>
<td>2.8286</td>
<td>.765</td>
<td>.064'</td>
</tr>
</tbody>
</table>

As can be seen from Table 13, the global education group’s two-tailed probability was .000 for item #30, emphasis on global issues. This suggests that for the global education group there was a significant difference from the beginning of the course to the end with respect to the emphasis placed on global issues. In contrast, Table 13 showing the comparison of the control group’s pre- and posttest scores, the
probability of .064 indicates that for the control group there was no significant difference over the six week period for the emphasis placed on global issues (item #30).

**Summary of findings on emphasis on incorporating objectives reflecting a global perspective.**

A comparison of the pretest scores on (a) the emphasis placed on incorporating objectives with a global perspective and (b) the emphasis placed on global issues showed that there was no significant difference between the experimental group and the control group at the commencement of the study. Given that there was no choice but to work with essentially pre-formed groups, this was significant to the study, allowing for posttest comparisons to determine if there were differences at the end of the six-week period.

The comparison of the posttest scores for both groups showed a significant statistical difference at the end of the six weeks for items #1-29, emphasis on objectives with a global perspective. For item #30, emphasis on global issues, the difference was not quite statistically significant. This suggests that overall, the six week graduate course did have an effect on the
global education group in changing their attitudes toward the need to incorporate objectives that reflect a global perspective into their teaching but not for the degree of emphasis placed on teaching global issues.

**Part III: Implementing Global Education**

This section of the study focused upon various aspects of global education which were dealt with in varying degrees throughout the six-week graduate global education institute. Participants' opinions towards global education at the beginning of the course were compared to those at the end of the six-weeks to determine if change had occurred. The analysis revolves around three subtopics: curricular elements, teaching strategies and institutional factors affecting global education.

**Curricular elements.**

The second question posed in this research was "Did the opinions of participants change, during the course, with respect to the curricular elements they consider necessary for the effective implementation of global education into the school curriculum?" In order
to answer that question the first section of Part III of the questionnaire asked participants to agree or disagree with a list of statements concerning the curricular elements they considered necessary for the effective implementation of global education into the school curriculum. With the exception of those statements which applied specifically to the Newfoundland and Labrador situation (items 13 and 14), all of the statements were drawn from the literature described in Chapter II. The pre- and posttest responses are summarized in Table 14. In reporting the results of this data, the degree of agreement (in terms of the total percentage of respondents who checked 'agree' and 'strongly agree') is compared with those who disagreed (i.e. those who indicated either 'disagree' or 'strongly disagree').

As can be seen from Table 14, for item 1, which states that global education should be the responsibility of the social studies, the percentage that disagreed or strongly disagreed in the posttest (69.5%) was lower than in the pretest (82.6%). By the completion of the institute more of the participants felt that global education should be the responsibility
### Table 14

**Curricular Elements**

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (%)</td>
<td>2 (%)</td>
<td>3 (%)</td>
</tr>
<tr>
<td>Extent of agreement with statements regarding the implementation of a global perspective into the school curriculum:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Global education should mainly be the responsibility of the social studies.</td>
<td>10 (43.5)</td>
<td>9 (39.1)</td>
<td>2 (8.7)</td>
</tr>
<tr>
<td></td>
<td>Posttest 13 (56.5)</td>
<td>3 (13.0)</td>
<td>3 (13.0)</td>
</tr>
<tr>
<td>2. Global education is most effective when infused throughout the entire curriculum.</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td></td>
<td>1 (4.3)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>3. The study of one's own history (as well as global history) should be an important part of global education.</td>
<td>1 (4.3)</td>
<td>0 (0)</td>
<td>6 (26.1)</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>1 (4.3)</td>
<td>7 (30.4)</td>
</tr>
<tr>
<td>4. The main emphasis of global education should be affective learning.</td>
<td>0 (0)</td>
<td>6 (26.1)</td>
<td>11 (47.8)</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>5 (23.8)</td>
<td>6 (28.6)</td>
</tr>
<tr>
<td>5. Global education should move beyond the transmission of knowledge.</td>
<td>0 (0)</td>
<td>2 (8.7)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>3 (13.6)</td>
</tr>
<tr>
<td>6. Global education should involve students in responsible decision making where students, not the teacher, make the decisions.</td>
<td>1 (4.3)</td>
<td>1 (4.3)</td>
<td>6 (26.1)</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>1 (4.3)</td>
<td>6 (26.1)</td>
</tr>
</tbody>
</table>
7. Global education should allow for a 
more flexible curriculum constructed by 
teachers and students.

<table>
<thead>
<tr>
<th>1 (4.3)</th>
<th>2 (8.7)</th>
<th>5 (21.7)</th>
<th>15 (65.2)</th>
<th>0</th>
</tr>
</thead>
</table>

8. Given the expanding environment 
approach to the primary/elementary 
curriculum, it is best to leave global education to the intermediate or 
secondary level.

<table>
<thead>
<tr>
<th>12 (56.5)</th>
<th>8 (36.4)</th>
<th>1 (4.5)</th>
<th>1 (4.5)</th>
<th>1</th>
</tr>
</thead>
</table>

9. A school-community partnership is 
esential if global education is going to 
be successful.

<table>
<thead>
<tr>
<th>1 (4.3)</th>
<th>1 (4.3)</th>
<th>13 (56.5)</th>
<th>8 (34.8)</th>
<th>0</th>
</tr>
</thead>
</table>

10. To be effective global education 
should be applied outside the classroom.

<table>
<thead>
<tr>
<th>0 (0)</th>
<th>1 (4.3)</th>
<th>12 (52.2)</th>
<th>10 (43.5)</th>
<th>0</th>
</tr>
</thead>
</table>

11. Global education is a necessity in 
the school curriculum.

<table>
<thead>
<tr>
<th>0 (0)</th>
<th>0 (0)</th>
<th>5 (21.7)</th>
<th>18 (76.3)</th>
<th>0</th>
</tr>
</thead>
</table>

12. Global education will increase in 
importance in the future.

<table>
<thead>
<tr>
<th>0 (0)</th>
<th>1 (4.5)</th>
<th>1 (4.5)</th>
<th>20 (90.9)</th>
<th>1</th>
</tr>
</thead>
</table>

13. Teachers of Newfoundland and Labrador 
are generally well qualified to teach 
global education.

<table>
<thead>
<tr>
<th>6 (26.1)</th>
<th>12 (52.2)</th>
<th>4 (17.4)</th>
<th>1 (4.3)</th>
<th>0</th>
</tr>
</thead>
</table>

14. I feel well-prepared to be a global 
education teacher.

<table>
<thead>
<tr>
<th>6 (26.1)</th>
<th>11 (47.8)</th>
<th>5 (21.7)</th>
<th>1 (4.3)</th>
<th>0</th>
</tr>
</thead>
</table>
of the social studies than did before the institute began. This is contradictory to what the participants felt with respect to item 2. More than 90% of the participants showed agreement in both the pretest and posttest that global education is most effective when infused throughout the entire curriculum. This conflict as to whether global education belongs only within the social studies curriculum or whether it should be infused throughout the entire curriculum, is found throughout the literature in the field.

There is basically no change from the pretest to the posttest for item 3. In both, 90% or more of the participants believed that the study of history was an important part of global education.

While approximately the same percentage of participants showed agreement in the pretest (73.9%) as did in the posttest (76.2%) for item 4, the idea that global education should mainly emphasize affective learning, there was a noticeable shift within the agree and strongly agree range. Only 26.1% strongly agreed with the statement in the pretest whereas 47.6% strongly agreed with it in the posttest. Similarly, the participants' views shifted somewhat towards the
idea of global education moving beyond the transmission of knowledge (item 5) with 86.4% strongly agreeing with this statement in the posttest compared to 69.6% in the pretest.

Item 6 basically showed no change from the pretest to the posttest. The participants viewed the involvement of students in responsible decision-making as important right from the onset. Item 7 was also ranked high from the beginning but it did increase even higher by the end of the institute. The participants' degree of agreement with item 7 in the pretest was 86.9% agreed/strongly agreed, with a slight increase to 95.4% in the posttest.

Respondents tended to disagree with item 8, which was concerned with reserving global education to the intermediate or secondary level due to the expanding environment approach in the primary/elementary curriculum, with 90.9% disagreeing or strongly disagreeing in the pretest with a slight decrease in this percentage in the posttest (86.4%). The view that global education should be left to the higher grades is an area of debate in the literature. Many writers believe that children of a younger age are more than
capable of developing a global perspective while others believe that younger children are unable to handle such complex issues.

There was also a shift of view towards item 9, with only 34.8% strongly agreeing to the necessity of a school-community partnership in the pretest, whereas this changed to 68.2% in the posttest. There was a similar shift with item 10, to be effective global education should be applied outside the classroom. In the pretest, 43.5% strongly agreed with this statement whereas in the posttest, 63.6% of the participants strongly agreed.

The necessity of global education in the school curriculum, item 11, had a 100% degree of agreement in both the pretest and the posttest, with an even greater emphasis towards the strongly agree range in the posttest. Item 12, related to global education increasing in importance in the future, was also agreed/strongly agreed to by all participants in the pretest with a slight change in the posttest where one of the participants disagreed with this statement.

Lastly, items 13 and 14 applied specifically to the Newfoundland and Labrador context. The
participants of the study felt both before and after the course, that teachers in Newfoundland and Labrador were generally not well qualified to teach global education. With respect to themselves however, at the beginning of the course, 26.1% strongly disagreed and 47.8% disagreed with the statement "I feel well-prepared to be a global education teacher", whereas at the end of the six weeks 45.5% agreed and 50.0% strongly agreed with this statement. This item clearly shows a very strong shift in the participants' own confidence in their preparation to be a global education teacher.

Teaching strategies for global education.

Another question posed in this research was "Did the opinions of participants change, during the course, with respect to their perceived level of competence in those teaching strategies which are recommended for teaching from a global perspective?" In order to answer that question the second component of Part II of the questionnaire asked participants to rank the level of competence they perceived they had in teaching strategies recommended for teaching from a global perspective. These techniques are the ones emphasized
throughout the literature as being effective. The participants ranked their level of confidence in each of the techniques prior to the course commencing and again at the end of the six weeks. A summary of the responses is given in Table 15.

In general, teachers ranked themselves as being much more competent in all nine areas by the completion of the course. For the purposes of reporting on these data, the four rankings were divided into two groups - very weak/weak and strong/very strong, and comparisons of the change in rankings were noted.

The largest changes were found in items 8 and 9. Item 8, concerned with lesson planning for global issues increased from 30.4% (strong/very strong) to 95.4%, an increase of 65%; and item 9, evaluation strategies for global learning increased from 13.0% (strong/very strong) to 86.4% by the end of the course, an increase of 73.4%. The participants perceived their level of competence in the teaching technique, use of community resources (item 6) as changing the least. They had ranked themselves highly on this one prior to the course and little change occurred over the six-week time frame.
# Table 15

Teaching Techniques

<table>
<thead>
<tr>
<th>Item</th>
<th>Very Weak</th>
<th></th>
<th>Very Strong</th>
<th></th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (# (%)</td>
<td>2 (# (%)</td>
<td>3 (# (%)</td>
<td>4 (# (%)</td>
<td>#</td>
</tr>
<tr>
<td>1. Values Clarification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>5 (21.7)</td>
<td>7 (30.4)</td>
<td>8 (34.8)</td>
<td>3 (13.0)</td>
<td>0</td>
</tr>
<tr>
<td>Posttest</td>
<td>0 (0)</td>
<td>3 (13.6)</td>
<td>11 (50.0)</td>
<td>8 (36.4)</td>
<td>1</td>
</tr>
<tr>
<td>2. Cooperative Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 (8.7)</td>
<td>3 (13.0)</td>
<td>14 (60.9)</td>
<td>4 (17.4)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1 (4.5)</td>
<td>0 (0)</td>
<td>6 (27.3)</td>
<td>15 (68.2)</td>
<td>1</td>
</tr>
<tr>
<td>3. Simulations/Games</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (4.3)</td>
<td>8 (34.8)</td>
<td>9 (39.1)</td>
<td>5 (21.7)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1 (4.5)</td>
<td>4 (18.2)</td>
<td>6 (27.3)</td>
<td>11 (50.0)</td>
<td>1</td>
</tr>
<tr>
<td>4. Role Playing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 (8.7)</td>
<td>6 (26.1)</td>
<td>11 (47.8)</td>
<td>4 (17.4)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>4 (18.2)</td>
<td>8 (36.4)</td>
<td>13 (59.1)</td>
<td>1</td>
</tr>
<tr>
<td>5. Discussions/Debates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (4.3)</td>
<td>4 (17.4)</td>
<td>9 (39.1)</td>
<td>9 (39.1)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>11 (50.0)</td>
<td>11 (50.0)</td>
<td>1</td>
</tr>
<tr>
<td>6. Community resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>3 (13.0)</td>
<td>13 (56.5)</td>
<td>7 (30.4)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>11 (50.0)</td>
<td>9 (40.9)</td>
<td>1</td>
</tr>
<tr>
<td>7. Concept formation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (4.3)</td>
<td>11 (47.8)</td>
<td>8 (34.8)</td>
<td>3 (13.0)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>4 (18.2)</td>
<td>9 (40.9)</td>
<td>9 (40.9)</td>
<td>1</td>
</tr>
<tr>
<td>8. Lesson planning for global issues.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 (30.4)</td>
<td>9 (39.1)</td>
<td>5 (21.7)</td>
<td>2 (8.7)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>7 (31.8)</td>
<td>14 (63.6)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>9 (39.1)</td>
<td>11 (47.8)</td>
<td>3 (13.0)</td>
<td>0 (0)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>3 (13.6)</td>
<td>11 (50.0)</td>
<td>8 (36.4)</td>
<td>1</td>
</tr>
</tbody>
</table>
All of the other teaching strategies fell between these high and low increases, with all of them showing some degree of increase. Item 1, values clarification, showed an increase of 38.6% for the strong/very strong category, with 86.4% of the participants feeling competent with this teaching strategy by the end of the institute; for item 7, concept formation, the increase shown was 34%, with 81.8% of the participants perceiving themselves competent in this area; and for item 4, role playing, the participants’ competence increased by 30.3% for the strong/very strong category, with 95.5% of the participants feeling very competent with this strategy by the completion of the institute. For the three remaining strategies, items 2, 3 and 5 (respectively cooperative learning, simulations/games and discussions/debates) there were also increases but of a smaller scale. Item 5 increased by 21.8% to an overall perceived level of competence by the completion of the course to be 100%; item 2 increased by 17.2%, to bring the perceived level of competence to 95.5%; and item 3 increased by 16.5%, increasing the participants’ level of competence to 77.3%.
Ranking the nine teaching strategies in terms of the overall competence the participants felt they had achieved by the completion of the institute, discussions/debates would be ranked the highest (100% ranked their competence as strong/very strong) followed by cooperative learning and role playing (both at 95.5%), then lesson planning for global issues (95.4%), community resources (90.9%), values clarification and evaluation strategies (86.4%), concept formation (81.8%) and simulations/games (77.3%). While it appears the participants felt more competent in some areas than others, overall, they perceived themselves as having gained competence in the use of all nine strategies.

**Institutional factors.**

This research also posed the question, "Did the opinions of participants change, during the course, with respect to the institutional factors which they consider to be positive or negative influences in trying to implement a global perspective into the curriculum?" In order to answer that question the third component of Part III of the questionnaire was designed to determine what institutional factors the participants perceived as being positive or negative
influences in trying to implement a global perspective into their teaching. Those responses are shown in Table 16.

From Table 16, it can be seen that the participants’ ratings of all items with the exception of item 2, instructional time available, increased by some degree towards the positive end of the scale. While in a number of items there was not a large increase, there was a significant change in item 5 (administrative support) and item 12 (own understanding of global education). The participants saw administrative support as a more positive influence by the end of the course than they perceived it at the commencement, and they also felt that their own understanding of global education increased, ranking it as a much more positive factor.

Factors that were still ranked relatively negatively at the end of the course were: instructional time available, evaluation strategies, class size, preparation time, and attitudes of fellow staff members. Many of these same factors are mentioned throughout the literature as factors of concern for teachers. Of the five which the participants ranked
### Table 16
Positive and Negative Influences

<table>
<thead>
<tr>
<th>Item</th>
<th>Negative 1 # (%)</th>
<th>2 # (%)</th>
<th>3 # (%)</th>
<th>Positive 4 # (%)</th>
<th>No Response #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors seen as positive or negative influence in trying to implement a global perspective into your teaching:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Student attitudes</td>
<td>Pretest 1 (4.3)</td>
<td>3 (13.0)</td>
<td>10 (43.5)</td>
<td>9 (39.1)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Posttest 0 (0)</td>
<td>1 (4.5)</td>
<td>12 (54.5)</td>
<td>9 (40.9)</td>
<td>1</td>
</tr>
<tr>
<td>2. Instructional time available</td>
<td>4 (17.4)</td>
<td>10 (43.5)</td>
<td>4 (17.4)</td>
<td>5 (21.7)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3 (13.6)</td>
<td>10 (45.5)</td>
<td>5 (22.7)</td>
<td>4 (18.2)</td>
<td>1</td>
</tr>
<tr>
<td>3. Community support</td>
<td>0 (0)</td>
<td>8 (34.8)</td>
<td>10 (43.5)</td>
<td>5 (21.7)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>6 (27.3)</td>
<td>10 (45.5)</td>
<td>6 (27.3)</td>
<td>1</td>
</tr>
<tr>
<td>4. Evaluation strategies</td>
<td>4 (17.4)</td>
<td>8 (34.8)</td>
<td>9 (39.1)</td>
<td>2 (8.7)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>8 (38.1)</td>
<td>3 (14.3)</td>
<td>2</td>
</tr>
<tr>
<td>5. Administrative support</td>
<td>0 (0)</td>
<td>1 (4.3)</td>
<td>15 (55.2)</td>
<td>7 (30.4)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>6 (27.3)</td>
<td>15 (68.2)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>4 (18.2)</td>
<td>5 (22.7)</td>
<td>9 (40.9)</td>
<td>4 (18.2)</td>
<td>1</td>
</tr>
<tr>
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<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>---</td>
</tr>
<tr>
<td>6. Class size</td>
<td>0 (0)</td>
<td>7 (31.8)</td>
<td>9 (40.9)</td>
<td>6 (27.3)</td>
<td>1</td>
</tr>
<tr>
<td>7. Preparation time</td>
<td>5 (21.7)</td>
<td>6 (26.1)</td>
<td>8 (34.8)</td>
<td>4 (17.4)</td>
<td>0</td>
</tr>
<tr>
<td>8. Networking</td>
<td>2 (8.7)</td>
<td>6 (26.1)</td>
<td>9 (39.1)</td>
<td>6 (26.1)</td>
<td>0</td>
</tr>
<tr>
<td>9. Age of the students you teach</td>
<td>0 (0)</td>
<td>4 (19.0)</td>
<td>9 (42.9)</td>
<td>8 (38.1)</td>
<td>2</td>
</tr>
<tr>
<td>10. Resource materials available</td>
<td>3 (13.0)</td>
<td>6 (26.1)</td>
<td>7 (30.4)</td>
<td>7 (30.4)</td>
<td>0</td>
</tr>
<tr>
<td>11. Attitudes of fellow staff members</td>
<td>1 (4.5)</td>
<td>3 (13.6)</td>
<td>11 (50.0)</td>
<td>7 (31.8)</td>
<td>1</td>
</tr>
<tr>
<td>12. Your own understanding of global education</td>
<td>0 (0)</td>
<td>9 (39.1)</td>
<td>11 (47.8)</td>
<td>3 (13.0)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>8 (36.4)</td>
<td>8 (36.4)</td>
<td>6 (27.3)</td>
<td>1</td>
</tr>
</tbody>
</table>
negatively, items 2 and 7 were ranked the highest. Teachers appear to be very concerned with the instructional time available and the amount of preparation time necessary.

**Summary of findings regarding the implementation of global education.**

At the completion of the graduate course, the participants' opinions towards the curricular elements necessary for the effective implementation of global education into the school curriculum reflected to a large degree the views found throughout the literature. While this was also true to some extent at the beginning of the institute, after exposure to the six-week course these views reflected the literature even more so.

As in the literature, conflict existed between certain viewpoints. One area in which this was very apparent was the issue that dealt with how a global perspective should be brought into the school curriculum: infused into all subject areas or through the social studies. There was ambiguity in the participants' views with respect to this issue. More of the participants felt that global education should
mainly be the responsibility of the social studies, by the completion of the course than at the commencement of the course. However, in both the pretest and posttest, the participants also agreed strongly with the idea that global education should be infused throughout the entire curriculum.

Despite the difference of opinion as to how a global perspective should be brought into the curriculum, the individuals involved agreed, right from the beginning of the course, that global education is a necessity in the school curriculum; that it will continue to increase in importance; and that it should be included at all grade levels, not leaving it only to the intermediate or secondary levels. By the completion of the course, moving beyond the transmission of knowledge and creating a school-community partnership, were viewed as important in order to effectively teach with a global perspective.

While the majority of the participants felt that teachers in Newfoundland and Labrador were generally not well qualified to teach global education, they felt that they, personally, were much better prepared to do so by the end of the global education institute. The
individuals also felt that they acquired competence in the various teaching strategies recommended for teaching from a global perspective. The level of competence varied somewhat from strategy to strategy, but overall, they perceived themselves as having gained competence in all of the teaching strategies.

There was a degree of concern expressed by the participants with respect to the institutional factors which can act as negative influences when trying to implement a global perspective into the school curriculum. The two that elicited the greatest concern were the instructional time available and the preparation time necessary. Not all institutional factors were viewed as negative influences, however. Administrative support was seen very positively by the completion of the course and the participants also felt that their own level of understanding of global education had also increased such that they would be more effective at implementing a global perspective into the school curriculum.
Definitions of Global Education

As mentioned in Chapter II, there is no one accepted definition of global education. Some educators choose to describe the general areas of concern or issues in a global education program while others describe the expected results of such programs.

As part of this study, the researcher was interested in finding out how the participants would define global education at two different stages of the study. Thus, they were asked to write a definition of global education at the beginning of the study and again at the end of the six-week course.

In defining global education, both prior to the commencement of the institute and at the completion, the participants either generally described the concerns which they felt a global education program should be concerned with (i.e., interrelatedness among all people; awareness of the world's interdependence; study of relationships) or they specifically focused on global education with respect to the school curriculum (i.e., integration across the school curriculum; infusion). It was also noticed that in
most cases the definitions written in the pretest were not as specific or refined as those of the posttest.

Examples of pretest and posttest definitions from selected individuals are given below to indicate changes during the course of the six weeks. The definitions are grouped based on the focus taken (ie: general concerns or school curriculum).

Of the twenty-three participants of the global education group, fifteen (65.2%) described, in both the pre- and posttest, the general concerns they felt a global education program should focus upon. That is, they focused on the aspects of a global education rather than upon its place in the school curriculum. There is no direct link drawn between a global education on one hand and schooling on the other. Examples of these definitions include:

- Participant A:

  (Pretest) - To examine how we are part of a 'developing' world order.

  (Posttest) - Global education is the exploration of the interrelatedness among all people and a study of the impact of their combined activities.
- Participant B:

(Pretest) - Develop an awareness that we live in a finite world where what happens in one part does have an impact elsewhere.

(Posttest) - Awareness of the interconnectedness and interdependence of the world around us.

- Participant C:

(Pretest) - Global education is an awareness of the world community as comprised of interdependent countries and peoples whose lifestyles and choices will effect the lifestyles and choices of all other countries and peoples of the world. It is an awareness of differences and essential similarities that must be able to co-exist in a world whose survival depends on global understanding among all peoples.

(Posttest) - Global education is the development of an awareness of the interdependence of all people on earth and the interdependence that exists between mankind and nature.

- Participant D:

(Pretest) - Global education is the study of the interrelationships (social, political, economic) that
bind all nations and people together for the common good.

(Posttest) - Global education is the study of relationships and interdependent connections (political, social, economic, cultural) that bind all peoples together. It is the promotion of understanding and caring about our world and the people in it.

Six other participants also defined the general concerns of a global education in their pretest definition but in the posttest they added to their definition of global education a connection to the school curriculum. That is, they linked the aspects of global education to the school curriculum by emphasizing the importance of integrating the aspects into the school curriculum:

- Participant E:

(Pretest) - Global education is a world view of how individuals and societies interact. Technology has made our world much smaller and thus we are beginning to see how similar we are and the interconnectedness of our problems and hopes for the future.
(Posttest) - An approach to education which requires the integration of global issues across an entire curriculum and implemented at all levels. It stresses the need for cooperation and communication amongst the global community which is becoming more and more interdependent.

- Participant F:
(Pretest) - An understanding of the interaction between and within the different countries which exist in our world.
(Posttest) - Global Education: to create an 'understanding' and 'awareness' of the various issues and how they affect society from all perspectives (eg: local, national, international). These issues must then be integrated in education curriculum.

- Participant G:
(Pretest) - Global education should enable students to have an awareness that they do not exist in isolation - that the world is becoming a 'global' community.
(Posttest) - Global education should be an important aspect of the curriculum of all grades and levels.
Global education is not a specific course rather it is an approach to teaching and learning which takes into consideration and is based on the ideology that we exist in a 'global village' rather than a specific community or country. The implications of global village is that each one of us are influenced and affected by what changes and occurrences in the entire world.

Two participants referred to global education and the school curriculum in both their pretest and post-test definitions. One example to illustrate this is:

-Participant H:

(Pretest) - Global education is the incorporation of world issues such as environment, resources, etc. into the school curriculum.

(Posttest) - Global education is the infusing of world problems and issues into the school curriculum. This involves discussion, awareness and solutions to these issues.

**Summary of definitions of global education.**

While all of the above definitions vary to some degree there appear to be some commonalities amongst them. All of the definitions seem to emphasize the
importance of increasing students' awareness and understanding of the interrelatedness and interconnectedness of the entire world. The students' knowledge, skills and attitudes need to be heightened so that they gain a better understanding of the interdependence of every living thing on the planet.

The variety of definitions provided by the participants essentially mirrors what is to be found in the literature. As Merryfield and Harris (1992) have pointed out, there is no universally accepted definition. Educators often describe global education differently.

It appears that all of the participants had some understanding of a definition of global education even before the institute for all of the definitions touched on some aspect of global education. It does appear however, that their definitions became more detailed and specific by the completion of the institute.

Ratings of Course Components

The final question of Part III of the questionnaire, completed at the end of the six weeks, asked participants to evaluate the various components
of the global education graduate institute. Respondents were asked to rank eleven course components in terms of their benefit in increasing their understanding of global education and how to implement it into the curriculum (see to Table 17).

Table 17 clearly shows that all of the course components were considered beneficial. On a scale ranging from 1, not beneficial, to 4, very beneficial, almost all items were ranked as either 3 or 4. All eleven components were ranked as very beneficial by more than 50% of the participants and no component was rated by anyone as not beneficial.

In addition to evaluating specific course components, participants were given the opportunity to provide two open-ended written responses. The first asked for any suggestions or recommendations for changes to the course and the second for any additional comments they may have had with respect to the course itself.

Generally, teachers who participated in the graduate global education course perceived it to be very beneficial in helping them increase their understanding of global education and how to teach with
Table 17

Ratings of Components of Course

<table>
<thead>
<tr>
<th>Item</th>
<th>Not Beneficial</th>
<th></th>
<th></th>
<th>Very Beneficial</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 # (%)</td>
<td>2 # (%)</td>
<td>3 # (%)</td>
<td>4 # (%)</td>
<td>#</td>
</tr>
<tr>
<td>Degree the components of graduate course was beneficial in increasing your understanding of global education and how to implement it into the curriculum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Research paper on a global issue.</td>
<td>0 (0)</td>
<td>3 (13.6)</td>
<td>7 (31.8)</td>
<td>12 (54.5)</td>
<td>1</td>
</tr>
<tr>
<td>2. Discussions on global issues.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>4 (18.2)</td>
<td>18 (81.8)</td>
<td>1</td>
</tr>
<tr>
<td>3. Presentations on global issues by class members.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>3 (13.6)</td>
<td>19 (86.4)</td>
<td>1</td>
</tr>
<tr>
<td>4. Introduction to various teaching strategies.</td>
<td>0 (0)</td>
<td>2 (9.5)</td>
<td>7 (33.3)</td>
<td>12 (57.1)</td>
<td>2</td>
</tr>
<tr>
<td>5. Creating lesson plans centered around particular teaching strategies.</td>
<td>0 (0)</td>
<td>3 (13.6)</td>
<td>6 (27.3)</td>
<td>13 (59.1)</td>
<td>1</td>
</tr>
<tr>
<td>6. Presentations on lesson plans for global issues by class members.</td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>8 (36.4)</td>
<td>13 (59.1)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>---</td>
<td>---</td>
</tr>
<tr>
<td>7. Designing a curriculum unit for a global issue.</td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>6 (27.3)</td>
<td>15 (68.2)</td>
<td>1</td>
</tr>
<tr>
<td>8. Presentations on curriculum units by class members.</td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>10 (45.5)</td>
<td>11 (50.0)</td>
<td>1</td>
</tr>
<tr>
<td>9. Group work on lesson plans and curriculum unit.</td>
<td>0 (0)</td>
<td>1 (4.5)</td>
<td>6 (27.3)</td>
<td>15 (68.2)</td>
<td>1</td>
</tr>
<tr>
<td>10. Discussions on global education components and curriculum changes necessary.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>6 (31.8)</td>
<td>15 (68.2)</td>
<td>1</td>
</tr>
<tr>
<td>11. Discussions on the need to teach from a global perspective.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>5 (22.7)</td>
<td>17 (77.3)</td>
<td>1</td>
</tr>
</tbody>
</table>
a global perspective. Positive comments were provided by 60.9% of the participants. The other participants (39.1%) choose not to give a written response. The positive comments included:

- Great course. It seems to me that every teacher who wishes to be seen as a true ‘educator’ must, in many ways, develop and apply a global perspective to his or her teaching.
- I personally feel that this has been a worthwhile course. The six weeks have been very enlightening, informative, as well as enjoyable. It should be a required course.
- Great class....Great summer!
- Thoroughly enjoyed the course. Instructors were on top of things, but were also co-learners. Made no pretence to be otherwise. The course also encouraged a great deal of personal research that went beyond any requirements.
- This has been a very practical approach to the appreciation of world issues. Well done! Extreme amount of knowledge (resources) generated over the six weeks.
- Excellent course - Well organized structure, well presented!
- The course was well taught. I especially liked the fact that copies of the papers were distributed to the students so that they could be used as resources.
- Thoroughly enjoyed the course. Something like this should be taught in the Fall or Winter semesters where there 'seems' to be more time. As well consideration should be given to implementing an undergraduate course in this area.
- A great informative 6 weeks!
- An interesting course that was a real eye opener for me - it made me realize how self-centered we all really are and that we have to open our eyes and take note of global issues. All teachers should have to take this course.

While the participants were extremely positive about this course, some felt there were areas that could be improved. Many participants offered suggestions for minor changes to the course if it were to be offered again. Many of those suggestions centered on the organization of the course particularly with respect to the required workload. Thirty-nine
percent of the teachers commented on the workload being too demanding for a six week course and offered suggestions as to how it might be improved.

The recommendation given most often was related to the written research paper and the curriculum unit which had to be developed. A number of the participants felt that writing an individual research paper on a global issue (e.g., overpopulation, global warming, racial discrimination) and then in small groups designing a curriculum unit on one of those issues, was too demanding for a six week course. The main suggestion given to help alleviate this problem was to assign groups from the beginning and have them work as a group on both the research paper and the curriculum unit:

- For the amount of time available (6 week summer school) it would probably reduce stress, be a better use of time etc... if the research paper on the global issue at the beginning was done as a group as well (like the curriculum unit).

- If curriculum units are to be created by groups of 2 or 3, then there should only be one group paper on the background (i.e., stats/facts) information. I found the
individual paper plus the group packages to be quite a heavy workload.

- Do a group assignment with both the global topic and the curriculum unit - group can then focus in on one topic and do justice to it in 6 weeks, rather than having 2 or 3 different individual topics to have to select a curriculum unit from.

Another recommendation given by a number of the participants had to do with the number of presentations given. For the curriculum unit portion of the course, each group was required to present two lesson plans from their curriculum unit as well as give a complete overview of the completed unit. In addition, each student had to present a brief overview of his/her individual research paper on a global issue. Twenty-two percent of the participants felt fewer presentations and more emphasis on some other areas may have been more beneficial:

- Each group could have presented one lesson from their unit and the presentation time could be extended - discussion time was needed. One week could be devoted to presentations by 'guest speakers' so that teachers could build on a 'contact' file.
- Two presentations on the same curriculum unit are not necessary.
- Have students present only one lesson rather than two but then give them an entire class to complete their lesson.

In addition to the foregoing general recommendations, a number of other specific suggestions were made:
- More time spent on topics. Many teachers benefit from the exchange of knowledge.
- From a transmission perspective a little more work from the textbook (ie: Pike & Selby). More emphasis on some of the teaching strategies.
- The science discipline needs to be given more prominence. The role of computers, eg. networking should be considered.
- May need more time devoted to how to teach and evaluate the various teaching strategies and the discussion of various world/global issues. Also need discussion as to how to implement global education within schools on a school-wide basis vs. individual teachers.
- To not offer the course during the summer. Time does not lend itself to creating a full curriculum unit well. Attempting to identify more resources that are available to teachers.

- Some topics may be pre-researched. The class, as a whole, could discuss its implementation etc... Now that the course has been offered, at least once, the students in future classes may take an existing package and by using role playing, simulation, concept formation, cooperative learning, etc... actually respond to it as students might do.

**Summary of ratings of course components.**

Despite the fact that a number of recommendations were given for changes to the course, a study of the ratings of the course components (Table 17) and the positive written comments of the participants seem to suggest that the individuals involved in Global Education 6671 found it to be a very worthwhile course.
Chapter V
Conclusions

Comments on Research Findings

The purpose of this study was to investigate the effects of an institute on global education on teachers' knowledge of and attitudes towards global education. This chapter comments on the results of the study in relation to the four proposed research questions.

Biographical data.

The participants involved in the global education graduate course spanned the complete teaching experience scale, covering all grade levels, a wide array of subject areas and some administrative positions. This was significant in that the literature suggests that global education does indeed need to become everyone's responsibility (Alladin, 1989; Gilliom & Remy, 1978; Kniep, 1986a). The majority of the participants (78.3%) indicated that their main reason for enrolling in the course was for the purpose of gaining a better understanding of global education and how to apply it to their teaching.
Seeing an interest in global education by not only educators within a variety of subject areas but also by individuals in administrative positions is significant. Administrative support is frequently cited as being crucial to the success of implementing a global perspective into the curriculum (Cogan, 1978; Tucker, 1983).

At the beginning of the study, it was thought by the researcher that the majority of the individuals enrolled in the institute would have had prior connection to one of the four subjects in the school curriculum previously targeted for a global education emphasis; however, such was not the case. The fact that teachers from a variety of subject areas and grade levels and not just social studies teachers were interested in the concept of global education was significant for as suggested by Merryfield (1991) emphasis will continually need to be placed on in-depth study for all inservice teachers in order for global education to become a vital component of schooling.

The study found that the amount of travel outside of Canada was minimal. Cogan (1977) suggested teachers must be encouraged to travel more and travel
opportunities need to be more accessible to teachers so they may gain a clearer picture of the world in which they live. Providing the need for such opportunities would seem to be supported by this study.

It was also found in this study that television was used as the participants' main source for acquiring information on global issues. This is significant in that it represents one way in which we are indeed becoming a "global village" for we are able to be knowledgeable of world happenings within moments of their occurrence. This can have a significant impact on the information teachers present to their students.

**Emphasis on incorporating objectives with a global perspective.**

One of the underlying aims of the global education course was to encourage teachers to include within their teaching objectives which had a global perspective. The views held by participants of the course with respect to this issue were not significantly different from the control group at the beginning of the study but by the completion of the study a difference was apparent. The t-test comparison for those items dealing with the degree of emphasis
placed on incorporating global education objectives into their teaching, revealed a significant difference between the two groups at the end of the six weeks.

The results indicate that the global education group placed a much higher emphasis on a global perspective by the end of the institute than did the control group. This finding is very significant to the study for it supports the literature emphasizing the need for in-depth study by teachers (Merryfield, 1991). Classroom teachers have a significant impact on their students and thus, being able to encourage teachers to see the necessity for more emphasis on a global perspective is key to implementing a global education into schooling.

It appears that the course helped change teachers' attitudes towards favouring a greater emphasis being placed on objectives that reflect a global perspective. This was one of the main aims of the course and success in attaining it was achieved. This conclusion replicates the findings of several other studies which have been conducted related to teachers' attitudes. Barnes and Curlette (1985) found that students of a graduate global education course became more favourable
toward global mindedness and world order. Likewise, Williams' (1988) findings revealed that a two-day global studies inservice workshop did have a small but significant effect on participants' global attitudes.

**Emphasis on global issues.**

The study was also interested in determining to what extent teachers emphasized a specific set of global issues in their teaching. It was found that the emphasis placed on these global issues by the participants of the institute was not significantly different from the control group at the beginning of the study. Also, by the end of the study, although the ratings were different in the two groups, they were not quite statistically significant. One possible reason for this could be the structured curriculum of the Newfoundland school system, a factor which some teachers might feel would restrict the topics they could cover. This would be particularly true for some high school teachers due to the necessity of covering specific material for the purpose of provincial wide public examinations. This or alternative hypothesis could be explored to determine the factors which
teachers perceive as influential in determining which topics are included in school programs.

**Implementing global education - curricular elements.**

Another of the main aims of the global education institute was to help teachers gain an understanding of how to effectively implement global education into the school curriculum. One of the conflicts evident in the data was related to how a global perspective should be incorporated. While the participants viewed the need for a global perspective as essential and increasing in importance, there was uncertainty as to how this could be best accomplished. While at the end of the institute 91.3% of the participants felt global education would be most effective when infused throughout the entire curriculum, on one hand, the same participants responded to another statement suggesting they felt that global education was best left to the social studies curriculum, on the other hand. This same conflict is found throughout the literature (Alladin, 1989; Evans, 1987; Gilliom, 1978; Kniep, 1986b; Peters, 1990; Tye & Kniep, 1991). A study by Otero (1983) found that while support for global
education existed, teachers could respond to global education only if it fitted into present procedures, courses or textbooks. Similarly, the conflict found in this study could be due to the structured curriculum of the Newfoundland school system. As previously mentioned, high school teachers often feel restricted in the amount of flexibility they have with respect to dealing with course content. This may be exacerbated by the presence of public examinations at the senior high school level.

Many of the participants felt that it is important that teaching a global perspective be started early in a child’s schooling. This is interesting for as pointed out in the literature many individuals argue that young children cannot grasp such complex ideas (Morris, 1977). Yet, as Evans (1987), Morris (1977) and Schuncke (1984) have pointed out it is both possible and desirable for young children to develop positive attitudes.

The majority of the participants (91.3%) also agreed with the idea expressed in Kniep’s (1986a, 1989a) definition of global education, that the study
of history is an important part of any program of global education.

While participants considered themselves not well qualified to teach global education at the beginning of the study, they felt much more confident by the end of the institute. This confirms findings in studies by Otero (1983), Tucker (1983) and Wright and Van-Decar (1990) which found that while teachers were supportive towards global education, they did not feel prepared to teach it. Vocke (1985) found that efforts by teachers tended to be piecemeal. The participants of the institute suggested that teachers in Newfoundland and Labrador are generally not well prepared to teach with a global perspective. The findings suggest that institutes such as the one described in this study would be of value to teachers and hence need to be continued in the future.

**Teaching strategies.**

The participants of the institute felt their competence increased in the teaching strategies emphasized in the course. The strategies they had ranked themselves weak in at the beginning of the institute received a much higher ranking at the end of
the institute. Helping the participants gain a better understanding of the teaching strategies emphasized in the literature so that they felt more competent using them was another one of the main aims of the course and it appears to have been achieved. Otero (1983) and Vocke (1985) both found that generally teachers were unfamiliar with global education activities, a finding replicated at the beginning of this study. Many teachers in the public school system will undoubtedly need instruction in the use of effective teaching strategies in order to effectively implement global education. In-depth instruction such as that provided in this institute will be necessary.

Institutional factors.

While some institutional factors were not viewed as possible barriers to the effective implementation of global education, others were. Those factors of greatest concern were the amount of instructional time available and the amount of preparation time necessary. Also ranked relatively negatively at the end of the course were evaluation strategies, class size and attitudes of fellow staff members. This is somewhat consistent with a study by Tucker (1983) which also
found class size, time factors and standardized tests, to be some of the negative influences identified by teachers.

Time will need to be spent, by those responsible for both preservice and inservice teacher education, to help teachers learn how to deal with perceived barriers to the implementation of global education. As Pike and Selby (1990) recommend, to help teachers overcome those barriers, particularly those related to time, they need help in realizing that global education is not an additional "task" they are being burdened with but rather a new approach to the existing curriculum.

**Definitions of global education.**

There were some variations in the definitions written by the participants of the course, with some emphasizing the components a global education program should focus on and others emphasizing global education with respect to the school curriculum. These variations would be seen by Merryfield and Harris (1992) as the needed flexibility so teachers can create their own brand of global education based upon local educational, political and cultural contexts. Morehouse and Collins (1983) would argue this point
however, for they found in their study that 1300
surveyed principals identified a clear, written
definition of global education as one of the most
pressing needs in implementing a global education
program.

Also, while the definitions written at the
commencement of the course suggest that the
participants had some understanding of a definition of
global education, it appears that the course components
were beneficial in helping teachers' definitions of
global education to become more specific.

**Course components.**

Comments made by students in the institute suggest
that they viewed this course to be extremely
beneficial, practical and informative. Many felt that
all teachers need to adapt a global perspective to
their teaching and that a course such as this one
should be required for all teachers. Recommendations
such as this one need to be considered very seriously
by those responsible for providing teacher education.

As expected with a new course, recommendations for
changes were suggested. However, overall the
participants were extremely pleased with the course and
the knowledge gained. Their written comments suggest that the six weeks was time well spent.

**Researchers' Comments**

The researcher acknowledges that while the results of this study may offer some insights into teacher education for global education, the results are not necessarily generalizable to the teaching population of Newfoundland and Labrador nor to other institutes of this nature which might be offered in the future. However, it is hoped, that the findings provide some insights for teacher educators as they attempt to help teachers gain a clear understanding of global education and its place in the curriculum of teacher education.

The researcher also recognizes that with studies such as this one there are inherent limitations. Undoubtedly, following the participants of the global education institute out into the field, to see if they apply such knowledge to their own teaching, as suggested by Merryfield (1992), would certainly build on this study. However, this was not feasible given the resources available to conduct the study. It would have also added to this study if the participants could
have been selected independently from the entire
teaching population of Newfoundland and Labrador,
rather than being relying on individuals who registered
for the course by choice. Due to the institute being
offered as a graduate course at Memorial University,
this was not possible. It would have also been
beneficial if the questionnaires had been field tested
prior to the institute. Although this was not
possible, due to time factors, the questionnaires were
assessed for validity and were tested for their
internal reliability at a later date and were deemed to
have face and content validity as well as a high
reliability.

Despite the limitations, the researcher feels that
this study was beneficial in providing some insights
into the impact an institute such as this one can have
on teachers' knowledge of and attitudes towards global
education. Through efforts such as this one, we can
attempt to determine if teachers are being provided
with the necessary information they require in order to
prepare the young people of today for the 21st century.
Implications of the Study

This study recognizes that the movement to bring global education into the Newfoundland and Labrador educational system is just getting off the ground. The institute for global education studied within this research was the first such institute to be offered to educators in Newfoundland and Labrador. Although many steps still need to be taken to provide inservice teachers with a thorough understanding of global education, the first steps have been taken.

Based on the data collected in this study, there are several implications for educating inservice teachers in global education:

1) It appears that, to date, with the exception of this one institute, teacher education in global education for inservice teachers has been characterized to a large degree by short presentations or workshops. Unfortunately, a workshop provides little depth and without building an in-depth study of global systems, cultures and contemporary problems, one does not grasp a true understanding of the complexities of today's world. Given the complexity of teaching from a global perspective, teachers need in-depth study (Merryfield,
1991), of which this institute is one example. Institutes such as this one will need to be offered on a regular basis so that, as pointed out by Cogan (1977), teachers see how they can improve their instructional program. In addition, it may be beneficial for the Newfoundland Global Education Project to continue expanding the development of its resource centre, newsletter and support systems for teachers, so that teachers feel that a variety of avenues exist which they can call upon for assistance.

2) If the desired direction is to infuse global education across the entire curriculum, teacher educators also need to help teachers apply what they are learning to the realities of all subject areas. The existing conflicting views between global education being infused into the curriculum or being the responsibility of the social studies needs to be addressed more directly to heighten teachers' awareness that teaching from a global perspective is not the responsibility of any single individual or subject area, but rather, it is a different orientation towards teaching and is everyone's responsibility. Information
sessions will not be fully sufficient to create this awareness. Teacher educators will need to provide practical help to individual teachers and schools on how to infuse a global perspective into the existing curriculum and help solve problems associated with accomplishing this undertaking. To accomplish this there will be a need for extensive preservice and continuing teacher education with all teachers.

3) While research into the types of teacher education that are provided for global education are obviously important, there is also a need for the research to follow-up on the participants of such programs to determine the degree of success they have in infusing a global perspective into their teaching. While knowing how to teach with a global perspective obviously sets the framework, it is only the implementation of a global perspective into the curriculum that will be beneficial to the students.

The results of this study show that an institute such as this one is an effective approach for changing teachers' knowledge of and attitudes toward global education. Many teachers see it as their
responsibility to find new approaches to opening the eyes of today's youth and ensuring they acquire the necessary 'survival skills'. It is important for teacher educators to accept the challenge of helping these teachers, and encouraging others, so teachers may in turn help their students prepare for their future.
References


Social Education, 38, 678-681.


Education, 42, 503-505.


Appendix A - Pretest
GLOBAL EDUCATION QUESTIONNAIRE

Global education is a fairly new concept in education and certainly a new concept for the schools of Newfoundland and Labrador. The first global education institute to be offered to teachers of Newfoundland and Labrador is Global Education 6671.

The questions contained in this questionnaire, apart from the background information, deal with various aspects of global education. Although you may not be familiar with all of these aspects, it would be greatly appreciated if you would try to answer the various items prior to the commencement of the institute.

A space has been provided below for you to record an identification code. The sole purpose of this code is for matching this questionnaire with the one you will complete at the end of the course. There will be no attempt made to identify individuals from these codes.

CODE: ___________
GLOBAL EDUCATION QUESTIONNAIRE

PART I: GENERAL BACKGROUND INFORMATION

Please give the appropriate responses to the following questions:

1. How many years of teaching experience do you have? (circle one)
   a. 0-5  b. 6-10  c. 11-15  d. 16-20  e. 21-25  f. 26 or more

2. What was your university major/concentration? ____________________________

3. What grade level(s) do you teach? (circle appropriate response(s))
   a. Primary(K-3)  b. Elementary(4-6)  c. Intermediate School(7-9)
   d. Senior High(Level I-III)  e. Other (please specify) ____________________

4. What is/are the main subject area(s) you teach? (circle appropriate response(s))
   a. Mathematics  d. Social Studies
   b. Language Arts  e. Science
   c. Foreign Language  f. Other (please specify) ____________________________

5. Have you attended a conference, workshop, or in-service session on global
   education during the past five years?  YES  NO
   If yes, briefly describe this session (type & length) _________________________

6. Approximately how many weeks, if any, have you spent in countries other
   than Canada in the last five years? ______

7. Which one of the following is your main source for acquiring information
   concerning current world issues? (circle one)
   a. Newspapers              c. Magazines
   b. Television              d. Radio

8. How often do you follow current issues through this source? (circle one)
   a. Daily                  d. 1-2 times per week
   b. 5-6 times per week     e. less than once per week
   c. 3-4 times per week

9. Did you teach either of the following courses this year?
   a. Grade 8 Social Studies  YES  NO
   b. World Problems 3204    YES  NO
10. Will you be teaching either of the following courses next year?
   a. Grade 4 Social Studies  YES  NO
   b. Grade 6 Social Studies  YES  NO
   c. Environmental Science 3205 YES  NO
   d. World Problems 3204  YES  NO

11. What are your reasons for enrolling in this course?


PART II: TEACHING EMPHASIS

Please take a moment to reflect upon your teaching during the school year which has just ended. Circle the number that best reflects the extent to which you emphasized the following objectives in your teaching during the past year.

To what extent did my teaching emphasize that ...  NO EXTENT GREAT EXTENT

   1. ... people are more different than they are alike. 1 2 3 4
   2. ... if necessary, we ought to be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world. 1 2 3 4
   3. ... all people in the world have many needs in common. 1 2 3 4
   4. ... individuals can practise different customs and possess different value systems, and still be effective citizens within their culture and live cooperatively with peoples of other cultures in an interdependent world. 1 2 3 4
   5. ... Newfoundland's first priority must be to solve its own problems before trying to help solve problems elsewhere in the world. 1 2 3 4
   6. ... each person has a unique perspective on the world that may not be shared by others. 1 2 3 4
   7. ... solutions to problems facing the world, such as food(hunger), poverty, pollution, overpopulation, etc... require cooperative endeavours by all peoples of the world. 1 2 3 4
   8. ... the world is becoming increasingly interdependent and the actions of one region or country may affect all other regions or countries. 1 2 3 4
   9. ... the way we perceive ourselves and other persons influences how we behave towards others. 1 2 3 4
10. "... the sooner we all acquire similar values and ideals the better off the world will be."

11. "... it is in the interest of our country to protect the rights of Canadian corporations to find and develop resources anywhere in the world."

12. "... multiculturalism in Canada is detrimental to the growth of Canada as a nation."

13. "... we need to build awareness of current trends and developments that are affecting the world as a whole now and in the future."

14. "... the world’s wealth is unequally distributed."

15. "... education and industrial progress are the keys to the Western world maintaining the competitive advantage it now enjoys."

16. "... predicting the future is a futile endeavour. We must concentrate on understanding the present."

17. "... the world’s resources are finite and limited."

18. "... we should adapt to the social order as it changes rather than trying to change it."

19. "... students should avoid an "us - vs. - them" orientation in their analysis of global problems."

20. "... there is a need to focus on interrelationships across cultures, nations or subgroups of society."

21. "... speculating, forecasting, scenario writing and other ways of predicting how the world may be in the future are desirable."

22. "... the balance of power alliances are the best solutions to the problems of antagonism and aggression in the world."

23. "... students should try to imagine what it would be like to live the life of persons in cultures different from their own."

24. "... the use of force and coercion are acceptable in solving international disputes."

25. "... it is necessary to develop an understanding about the effects of using natural resources without consideration for future generations."

26. "... we should strive for loyalty to our country before we can afford to consider world brotherhood."

27. "... we should examine sources of conflict and explore alternative solutions and consequences of conflict."

28. "... the primary goal of Canada’s participation in world programs is to serve the national interests and protect national sovereignty."
29. ... there exist tangible economic connections with other nations and peoples of the world.

30. To what extent did I emphasize in my teaching the following topics/issues:
   - Food and Hunger
   - Energy
   - Cross-cultural communication
   - Resources
   - Human Rights
   - Environment
   - Alternative Futures
   - Racism
   - Economic Problems
   - Third World Issues
   - Conflicts and Violence
   - World Trade

PART III: IMPLEMENTING GLOBAL EDUCATION

A. Please circle the number that best reflects the extent to which you agree/disagree with the following statements regarding the implementation of a global perspective into the school curriculum.

   STRONGLY DISAGREE 1 2 3 4
   STRONGLY AGREE 1 2 3 4

1. Global education should mainly be the responsibility of the social studies. 1 2 3 4
2. Global education is most effective when infused throughout the entire curriculum. 1 2 3 4
3. The study of one's own history (as well as global history) should be an important part of global education. 1 2 3 4
4. The main emphasis of global education should be affective learning. 1 2 3 4
5. Global education should move beyond the transmission of knowledge. 1 2 3 4
6. Global education should involve students in responsible decision making where students, not the teacher, make the decisions. 1 2 3 4
7. Global education should allow for a more flexible curriculum constructed by teachers and students. 1 2 3 4

8. Given the expanding environment approach to the primary/elementary curriculum, it is best to leave global education to the intermediate or secondary level. 1 2 3 4

9. A school-community partnership is essential if global education is going to be successful. 1 2 3 4

10. To be effective global education should be applied outside the classroom. 1 2 3 4

11. Global education is a necessity in the school curriculum. 1 2 3 4

12. Global education will increase in importance in the future. 1 2 3 4

13. Teachers of Newfoundland and Labrador are generally well-qualified to teach global education. 1 2 3 4

14. I feel well-prepared to be a global education teacher. 1 2 3 4

B. Please indicate the level of competence you feel you have in using the following:

<table>
<thead>
<tr>
<th></th>
<th>VERY WEAK</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>VERY STRONG</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Value clarification</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Cooperative learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Simulations/Games</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Role-playing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Discussions/Debates</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Community resources</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Concept formation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Lesson planning for global issues</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Evaluation strategies for global learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
C. Please circle the number that best indicates to what degree each of the factors listed below would be seen by you as either a positive or negative influence in trying to implement a global perspective into your teaching.

<table>
<thead>
<tr>
<th>Factor</th>
<th>NEGATIVE</th>
<th>POSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student attitudes</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>2. Instructional time available</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>3. Community support</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>4. Evaluation strategies</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>5. Administrative support</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>6. Class size</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>7. Preparation time</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>8. Networking</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>9. Age of the students you teach</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>10. Resource materials available</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>11. Attitudes of fellow staff members</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>12. Your own understanding of global education</td>
<td>1 2 3 4</td>
<td></td>
</tr>
</tbody>
</table>

Please take a moment to write what you think global education is.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Thank-you for taking the time to complete this survey. I look forward to your participation at the conclusion of the course.
Appendix B - Posttest
GLOBAL EDUCATION QUESTIONNAIRE II

This questionnaire is the follow-up to the one you completed at the beginning of the global education institute. It would be greatly appreciated if you would take some time to reflect upon the course and then respond to all of the various items included in the questionnaire.

Once again a space has been provided below for you to record an identification code. The sole purpose of this code is for matching this questionnaire with the one you completed at the beginning of the course. There will be no attempt made to identify individuals from these codes.

CODE: __________
GLOBAL EDUCATION QUESTIONNAIRE

Part I: TEACHING EMPHASIS

Now that you have completed the course on global education, circle the number that best reflects the extent to which you feel your teaching will emphasize the following objectives in the upcoming school year.

<table>
<thead>
<tr>
<th>To what extent will my teaching emphasize that...</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ... people are more different than they are alike.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. ... if necessary, we ought to be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. ... all people in the world have many needs in common.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. ... individuals can practise different customs and possess different value systems, and still be effective citizens within their culture and live cooperatively with peoples of other cultures in an interdependent world.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. ... Newfoundland’s first priority must be to solve its own problems before trying to help solve problems elsewhere in the world.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. ... each person has a unique perspective on the world that may not be shared by others.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. ... solutions to problems facing the world, such as food(hunger), poverty, pollution, overpopulation, etc... require cooperative endeavours by all peoples of the world.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. ... the world is becoming increasingly interdependent and the actions of one region or country may affect all other regions or countries.</td>
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<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. ... the way we perceive ourselves and other persons influences how we behave towards others.</td>
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<td>4</td>
</tr>
<tr>
<td>10. ... the sooner we all acquire similar values and ideals the better off the world will be.</td>
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</tr>
<tr>
<td>11. ... it is in the interest of our country to protect the rights of Canadian corporations to find and develop resources anywhere in the world.</td>
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</tr>
<tr>
<td>12. ... multiculturalism in Canada is detrimental to the growth of Canada as a nation.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. ... we need to build awareness of current trends and developments that are affecting the world as a whole now and in the future.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>14. ... the world’s wealth is unequally distributed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
15. ... education and industrial progress are the keys to the Western world maintaining the competitive advantage it now enjoys.  
16. ... predicting the future is a futile endeavour. We must concentrate on understanding the present.  
17. ... the world's resources are finite and limited.  
18. ... we should adapt to the social order as it changes rather than trying to change it.  
19. ... students should avoid an "us - vs. - them" orientation in their analysis of global problems.  
20. ... there is a need to focus on interrelationships across cultures, nations or subgroups of society.  
21. ... speculating, forecasting, scenario writing and other ways of predicting how the world may be in the future are desirable.  
22. ... the balance of power alliances are the best solutions to the problems of antagonism and aggression in the world.  
23. ... students should try to imagine what it would be like to live the life of persons in cultures different from their own.  
24. ... the use of force and coercion are acceptable in solving international disputes.  
25. ... it is necessary to develop an understanding about the effects of using natural resources without consideration for future generations.  
26. ... we should strive for loyalty to our country before we can afford to consider world brotherhood.  
27. ... we should examine sources of conflict and explore alternative solutions and consequences of conflict.  
28. ... the primary goal of Canada's participation in world programs is to serve the national interests and protect national sovereignty.  
29. ... there exist tangible economic connections with other nations and peoples of the world.  
30. To what extent will I emphasize in my teaching the following topics/issues:

<table>
<thead>
<tr>
<th>Topic</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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<tbody>
<tr>
<td>Food and Hunger</td>
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<td>Energy</td>
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<td>Cross-cultural communication</td>
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<td>Resources</td>
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<td>Environment</td>
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</table>
Part II: IMPLEMENTING GLOBAL EDUCATION

A. Please circle the number that best reflects the extent to which you agree/disagree with the following statements regarding the implementation of a global perspective into the school curriculum.

STRONGLY DISAGREE | 1 2 3 4
--- | --- | --- | --- | ---

**1.** Global education should mainly be the responsibility of the social studies.

**2.** Global education is most effective when infused throughout the entire curriculum.

**3.** The study of one’s own history (as well as global history) should be an important part of global education.

**4.** The main emphasis of global education should be affective learning.

**5.** Global education should move beyond the transmission of knowledge.

**6.** Global education should involve students in responsible decision making where students, not the teacher, make the decisions.

**7.** Global education should allow for a more flexible curriculum constructed by teachers and students.

**8.** Given the expanding environment approach to the primary/elementary curriculum, it is best to leave global education to the intermediate or secondary level.

**9.** A school-community partnership is essential if global education is going to be successful.

**10.** To be effective global education should be applied outside the classroom.

**11.** Global education is a necessity in the school curriculum.

**12.** Global education will increase in importance in the future.
13. Teachers of Newfoundland and Labrador are generally well-qualified to teach global education.  

14. I feel well-prepared to be a global education teacher.

B. Please indicate the level of competence you feel you have in using the following teaching strategies after having been exposed to them during the course.

<table>
<thead>
<tr>
<th>Teaching Strategy</th>
<th>VERY WEAK</th>
<th>2</th>
<th>3</th>
<th>VERY STRONG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value clarification</td>
<td>1 2 3 4</td>
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<td></td>
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<tr>
<td>Cooperative learning</td>
<td>1 2 3 4</td>
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<tr>
<td>Simulations/Games</td>
<td>1 2 3 4</td>
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<tr>
<td>Role-playing</td>
<td>1 2 3 4</td>
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<tr>
<td>Discussions/Debates</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
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<tr>
<td>Community resources</td>
<td>1 2 3 4</td>
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<tr>
<td>Concept formation</td>
<td>1 2 3 4</td>
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<td></td>
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<tr>
<td>Lesson planning for global issues</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Evaluation strategies for global learning</td>
<td>1 2 3 4</td>
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</tbody>
</table>

C. Please circle the number that best indicates to what degree each of the factors listed below would be seen by you as either a positive or negative influence in trying to implement a global perspective into your teaching.

<table>
<thead>
<tr>
<th>Factor</th>
<th>NEGATIVE</th>
<th>2</th>
<th>3</th>
<th>POSITIVE</th>
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</thead>
<tbody>
<tr>
<td>Student attitudes</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Instructional time available</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community support</td>
<td>1 2 3 4</td>
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<tr>
<td>Evaluation strategies</td>
<td>1 2 3 4</td>
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<tr>
<td>Administrative support</td>
<td>1 2 3 4</td>
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<tr>
<td>Class size</td>
<td>1 2 3 4</td>
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<tr>
<td>Preparation time</td>
<td>1 2 3 4</td>
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<tr>
<td>Networking</td>
<td>1 2 3 4</td>
<td></td>
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<tr>
<td>Age of the students you teach</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part IV: ANALYSIS OF COMPONENTS OF COURSE

Please indicate the degree to which each of the components of the graduate course was beneficial in increasing your understanding of global education.

<table>
<thead>
<tr>
<th>NOT BENEFICIAL</th>
<th>VERY BENEFICIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research paper on a global issue</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2. Discussions on global issues</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3. Presentations on a global issue by class members</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4. Introduction to various teaching strategies</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5. Creating lesson plans centered around particular teaching strategies</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6. Presentations on lessons plans by class members</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7. Designing a curriculum unit for a global issue</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8. Presentations on curriculum units by class members</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>9. Group work on curriculum unit</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

Please take a moment to write your definition of global education.
What suggestions or recommendations for changes to this course would you make?


Thank-you for taking the time to complete this survey.
Appendix C - Permission to Conduct Study
May 28, 1992

Dr. George Hickman
Chair
Ethics Review Committee
Faculty of Education
Memorial University of Newfoundland
St. John’s, NF

Dear Dr. Hickman:

This letter is to confirm that permission has been granted for Ms. Sandra Oram to administer a questionnaire to students enrolled in Education 6671 - Global Education and the School Curriculum. As Ms. Oram will be a student in this course, her role as a participant-observer should assist efforts to evaluate the program.

Yours truly,

Bertram Tulk
Director

BT/mfe
June 24, 1992

TO: Chair, Ethics Committee,  
Faculty of Education

FROM: Frank Cramm

SUBJECT: S. Oram's Research

This is to certify that S. Oram has my permission to distribute research materials in my graduate class.

__________________________  
Frank Cramm

FC/este
Appendix D - Letter of Consent (Experimental Group)
June 25, 1992

Dear Teacher:

The purpose of this letter is to provide you with information regarding a study I am conducting centered around the Global Education Course 6671 and to ask if you would consider participating in the study.

I am working on a thesis for the completion of my Masters of Education in Curriculum and Instruction, under the guidance of Dr. R. Kelleher. The focus of the thesis is the study of the effects of the previously mentioned course on teachers' knowledge of and attitudes toward global education.

Your participation in this study would involve the completion of a questionnaire on the first day of the course and again on the last day. Both questionnaires will take approximately 20 minutes to complete. While your cooperation would be extremely helpful to my study, it is not a requirement of the course and your participation would be strictly voluntary. You would have the option to withdraw from the study at any time or refrain from answering any questions you wish to omit.

Permission to conduct this study has been granted by the cooperating instructors. The study has also been approved by the Faculty of Education's Ethics Review Committee and my thesis advisor.

I can assure you that all data will be dealt with as group data, to be held in the strictest confidence and will in no way affect your course mark. The results of the study will be made available to you upon request.

Your agreement to participate in the study would be greatly appreciated. Should you have any questions concerning this study please feel free to discuss them with me at any time.

Thank you for your time and consideration.

Sincerely;

Sandra D. Oram

I, __________________, have agreed to participate in the study on global education being undertaken by Sandra D. Oram. I am aware that participation is strictly voluntary and that I can withdraw from the study at any time. I also understand that all information is strictly confidential and no individual will be identified.

Date ___________________  Signature ___________________
Appendix E - Letter of Consent (Control Group)
Sandra D. Oram  
22 Keane Place, Apt. 110  
St. John's, NF  
A1C 6B3

June 25, 1992

Dear Teacher:

The purpose of this letter is to provide you with information regarding a study I am conducting centered around the Global Education Course 6871 and to ask if you would consider participating in the study.

I am working on a thesis for the completion of my Masters of Education in Curriculum and Instruction, under the guidance of Dr. R. Kelleher. The focus of the thesis is the study of the effects of the previously mentioned course on teachers' knowledge of and attitudes toward global education.

Your participation in this study would involve the completion of a short questionnaire at the beginning and end of summer session. Both questionnaires will take approximately 15 minutes to complete. While your cooperation would be extremely helpful to my study, it is not a requirement of any course you are registered for and your participation would be strictly voluntary. You would have the option to withdraw from the study at any time or refrain from answering any questions you wish to omit.

Permission to conduct this study has been granted by the cooperating instructors. The study has also been approved by the Faculty of Education’s Ethics Review Committee and my thesis advisor.

I can assure you that all data will be dealt with as group data, to be held in the strictest confidence. The results of the study will be made available to you upon request.

Your agreement to participate in the study would be greatly appreciated. Should you have any questions concerning this study please feel free to discuss them with me at any time.

Thank-you for your time and consideration.

Sincerely;

Sandra D. Oram

I, __________________________, have agreed to participate in the study on global education being undertaken by Sandra D. Oram. I am aware that participation is strictly voluntary and that I can withdraw from the study at any time. I also understand that all information is strictly confidential and no individual will be identified.

Date________________________ Signature________________________
Appendix F - Teaching Emphasis on Global Perspective
(Global Education Group)
Table 18
Teaching Emphasis on Global Perspective

(Global Education Group)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>No Extent</th>
<th>Great Extent</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (# (%))</td>
<td>2 (# (%))</td>
<td>3 (# (%))</td>
</tr>
<tr>
<td>Extent to which the following objectives were/will be emphasized in your teaching during the past year/in the upcoming school year:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. ... people are more different than they are alike.</td>
<td>Pretest 6 (26.1)</td>
<td>6 (26.1)</td>
<td>10 (43.5)</td>
</tr>
<tr>
<td></td>
<td>Posttest 9 (40.9)</td>
<td>9 (40.9)</td>
<td>3 (13.6)</td>
</tr>
<tr>
<td>2. ... if necessary, we ought to be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world.</td>
<td>8 (34.8)</td>
<td>9 (39.1)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td></td>
<td>0 (0)</td>
<td>7 (31.8)</td>
<td>11 (50.0)</td>
</tr>
<tr>
<td>3. ... All people in the world have many needs in common.</td>
<td>2 (8.7)</td>
<td>2 (8.7)</td>
<td>10 (43.5)</td>
</tr>
<tr>
<td></td>
<td>1 (4.5)</td>
<td>1 (4.5)</td>
<td>4 (18.2)</td>
</tr>
<tr>
<td>4. ... individuals can practice different customs and possess different value systems, and still be effective citizens within their culture and live cooperatively with peoples of other cultures in an interdependent world.</td>
<td>4 (17.4)</td>
<td>5 (21.7)</td>
<td>7 (30.4)</td>
</tr>
<tr>
<td></td>
<td>1 (4.5)</td>
<td>2 (9.1)</td>
<td>3 (13.6)</td>
</tr>
<tr>
<td>5. ... Newfoundland's first priority must be to solve its own problems before trying to help solve problems elsewhere in the world.</td>
<td>7 (30.4)</td>
<td>12 (52.2)</td>
<td>3 (13.0)</td>
</tr>
<tr>
<td></td>
<td>4 (18.2)</td>
<td>15 (68.2)</td>
<td>1 (4.5)</td>
</tr>
<tr>
<td>Statement</td>
<td>Yes</td>
<td>No</td>
<td>Undecided</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>6. ... each person has a unique perspective on the world that may not be shared by others.</td>
<td>7 (30.4)</td>
<td>8 (34.8)</td>
<td>6 (26.1)</td>
</tr>
<tr>
<td>7. ... Solutions to problems facing the world, such as food, hunger, poverty, pollution, overpopulation, etc., require cooperative endeavours by all peoples of the world.</td>
<td>2 (8.7)</td>
<td>3 (13.0)</td>
<td>7 (30.4)</td>
</tr>
<tr>
<td>8. ... the world is becoming increasingly interdependent and the actions of one region or country may affect all other regions or countries.</td>
<td>3 (13.0)</td>
<td>2 (8.7)</td>
<td>9 (39.1)</td>
</tr>
<tr>
<td>9. ... the way we perceive ourselves and other persons influences how we behave towards others.</td>
<td>2 (8.7)</td>
<td>7 (30.4)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td>10. ... the sooner we all acquire similar values and ideals the better off the world will be.</td>
<td>6 (26.1)</td>
<td>7 (30.4)</td>
<td>9 (39.1)</td>
</tr>
<tr>
<td>11. ... it is in the interest of our country to protect the rights of Canadian corporations to find and develop resources anywhere in the world.</td>
<td>14 (63.6)</td>
<td>6 (27.3)</td>
<td>2 (9.1)</td>
</tr>
<tr>
<td>12. ... multiculturalism in Canada is detrimental to the growth of Canada as a nation.</td>
<td>14 (60.9)</td>
<td>7 (30.4)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>13. ... we need to build awareness of current trends and developments that are affecting the world as a whole now and in the future.</td>
<td>4 (17.4)</td>
<td>4 (17.4)</td>
<td>8 (34.8)</td>
</tr>
<tr>
<td>14. ... the world's wealth is unequally distributed.</td>
<td>6 (26.1)</td>
<td>4 (17.4)</td>
<td>7 (30.4)</td>
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<tr>
<td>15. ... education and industrial progress are keys to the Western world maintaining the competitive advantage it now enjoys.</td>
<td>7 (31.8)</td>
<td>2 (9.1)</td>
<td>6 (27.3)</td>
</tr>
<tr>
<td>16. ... predicting the future is a futile endeavour. We must concentrate on understanding the present.</td>
<td>12 (52.2)</td>
<td>6 (26.1)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td>17. ... the world’s resources are finite and limited</td>
<td>6 (26.1)</td>
<td>5 (21.7)</td>
<td>6 (26.1)</td>
</tr>
<tr>
<td>18. ... we should adapt to the social order as it changes rather than trying to change it.</td>
<td>11 (47.8)</td>
<td>7 (30.4)</td>
<td>4 (17.4)</td>
</tr>
<tr>
<td>19. ... students should avoid an “us vs. them” orientation in their analysis of global problems.</td>
<td>4 (17.4)</td>
<td>9 (39.1)</td>
<td>6 (26.1)</td>
</tr>
<tr>
<td>20. ... there is a need to focus on interrelationships across cultures, nations or subgroups of society.</td>
<td>5 (21.7)</td>
<td>4 (17.4)</td>
<td>10 (43.5)</td>
</tr>
<tr>
<td>21. ... speculating, forecasting, scenario writing and other ways of predicting how the world may be in the future are desirable.</td>
<td>6 (26.1)</td>
<td>8 (34.8)</td>
<td>5 (21.7)</td>
</tr>
<tr>
<td>22. ... the balance of power alliances are the best solutions to the problems of antagonism and aggression in the world.</td>
<td>10 (45.5)</td>
<td>3 (13.6)</td>
<td>9 (40.9)</td>
</tr>
<tr>
<td>23. ... students should try to imagine what it would be like to live the life of persons in cultures different from their own.</td>
<td>4 (17.4)</td>
<td>4 (17.4)</td>
<td>7 (30.4)</td>
</tr>
<tr>
<td>24. ... the use of force and coercion are acceptable in solving international disputes.</td>
<td>17 (73.9)</td>
<td>3 (13.0)</td>
<td>1 (4.3)</td>
</tr>
</tbody>
</table>
25. ... it is necessary to develop an understanding about the effects of using natural resources without consideration for future generations.

26. ... we should strive for loyalty to our country before we can afford to consider world brotherhood.

27. ... we should examine sources of conflict and explore alternative solutions and consequences of conflict.

28. ... the primary goal of Canada's participation in world programs is to serve the national interests and protect national sovereignty.

29. ... there exist tangible economic connections with other nations and peoples of the world.

30. ... To what extent will I emphasize in my teaching the following topics/issues:

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<td>(a)</td>
<td>Food and Hunger</td>
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<td>3</td>
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<td>34.8</td>
<td>9</td>
<td>39.1</td>
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<td>2</td>
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<td>36.4</td>
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<td>Energy</td>
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<td>3</td>
<td>13.0</td>
<td>6</td>
<td>26.1</td>
<td>7</td>
<td>30.4</td>
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<td>1</td>
<td>4.5</td>
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<td>4.5</td>
<td>8</td>
<td>36.4</td>
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<td>(c)</td>
<td>Cross-cultural Communication</td>
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<td>8</td>
<td>34.8</td>
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<td>34.8</td>
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<td>17.4</td>
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<td>22.7</td>
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<td>(d)</td>
<td>Resources</td>
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<td>3</td>
<td>13.0</td>
<td>4</td>
<td>17.4</td>
<td>7</td>
<td>30.4</td>
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<td>5</td>
<td>22.7</td>
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<td>5</td>
<td>21.7</td>
<td>5</td>
<td>21.7</td>
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<td>9.1</td>
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<td>18.2</td>
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<td>18.2</td>
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<td>(f)</td>
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<td>4.5</td>
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<td></td>
<td>Alternative Futures</td>
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<td>(g)</td>
<td>8 (34.8)</td>
<td>5 (21.7)</td>
<td>5 (21.7)</td>
<td>5 (21.7)</td>
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<td></td>
<td>2 (9.1)</td>
<td>5 (22.7)</td>
<td>9 (40.9)</td>
<td>6 (27.3)</td>
<td>1</td>
</tr>
<tr>
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Appendix G - Teaching Emphasis on Global Perspective (Control Group)
Table 19
Teaching Emphasis on Global Perspective
(Control Group)

<table>
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<th>ITEM</th>
<th>No Extent</th>
<th>Great Extent</th>
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<tr>
<td></td>
<td>1 (%)</td>
<td>2 (%)</td>
<td>3 (%)</td>
</tr>
<tr>
<td>1. ... people are more different than they are alike.</td>
<td>Pre-Test 6 (25.0)</td>
<td>12 (50.0)</td>
<td>3 (12.5)</td>
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<tr>
<td></td>
<td>PostTest 3 (14.3)</td>
<td>7 (33.3)</td>
<td>7 (33.3)</td>
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<tr>
<td>2. ... if necessary, we ought to be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world.</td>
<td>12 (50.0)</td>
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<td>2 (10.0)</td>
<td>11 (55.0)</td>
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</tr>
<tr>
<td>3. ... All people in the world have many needs in common.</td>
<td>2 (8.3)</td>
<td>4 (16.7)</td>
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<td></td>
<td>0 (0)</td>
<td>2 (8.3)</td>
<td>9 (42.9)</td>
</tr>
<tr>
<td>4. ... individuals can practice different customs and possess different value systems, and still be effective citizens within their culture and live cooperatively with peoples of other cultures in an interdependent world.</td>
<td>3 (12.5)</td>
<td>3 (12.5)</td>
<td>10 (41.7)</td>
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<tr>
<td></td>
<td>2 (9.5)</td>
<td>3 (14.3)</td>
<td>6 (28.6)</td>
</tr>
<tr>
<td>5. ... Newfoundland's first priority must be to solve its own problems before trying to help solve problems elsewhere in the world.</td>
<td>9 (37.5)</td>
<td>8 (33.3)</td>
<td>6 (25.0)</td>
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<tr>
<td></td>
<td>2 (9.5)</td>
<td>9 (42.9)</td>
<td>6 (28.6)</td>
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</tbody>
</table>
6. ... each person has a unique perspective on the world that may not be shared by others.

7. ... Solutions to problems facing the world, such as food (hunger), poverty, pollution, overpopulation, etc... require cooperative endeavours by all peoples of the world.

8. ... the world is becoming increasingly interdependent and the actions of one region or country may affect all other regions or countries.

9. ... the way we perceive ourselves and other persons influences how we behave towards others.

10. ... the sooner we all acquire similar values and ideals the better off the world will be.

11. ... it is in the interest of our country to protect the rights of Canadian corporations to find and develop resources anywhere in the world.

12. ... multiculturalism in Canada is detrimental to the growth of Canada as a nation.

13. ... we need to build awareness of current trends and developments that are affecting the world as a whole now and in the future.

14. ... the world's wealth is unequally distributed.
15. ... education and industrial progress are keys to the Western world maintaining the competitive advantage it now enjoys.

16. ... predicting the future is a futile endeavour. We must concentrate on understanding the present.

17. ... the world's resources are finite and limited.

18. ... we should adapt to the social order as it changes rather than trying to change it.

19. ... students should avoid an "us vs. them" orientation in their analysis of global problems.

20. ... there is a need to focus on interrelationships across cultures, nations or subgroups of society.

21. ... speculating, forecasting, scenario writing and other ways of predicting how the world may be in the future are desirable.

22. ... the balance of power alliances are the best solutions to the problems of antagonism and aggression in the world.

23. ... students should try to imagine what it would be like to live the life of persons in cultures different from their own.

24. ... the use of force and coercion are acceptable in solving international disputes.
25. ... It is necessary to develop an understanding about the effects of using natural resources without consideration for future generations.

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26. ... We should strive for loyalty to our country before we can afford to consider world brotherhood.

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27. ... We should examine sources of conflict and explore alternative solutions and consequences of conflict.

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28. ... The primary goal of Canada's participation in world programs is to serve the national interests and protect national sovereignty.

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<td>4 (19.0)</td>
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29. ... There exist tangible economic connections with other nations and peoples of the world.

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30. ... To what extent will I emphasize in my teaching the following topics/issues:

- Food and Hunger
  - 6 (25.0)
  - 1 (4.8)
  - 8 (33.3)
  - 5 (20.8)
  - 5 (20.8)
  - 0

- Energy
  - 5 (21.7)
  - 2 (9.5)
  - 7 (30.4)
  - 8 (34.8)
  - 3 (13.0)
  - 1

- Cross-cultural Communication
  - 8 (34.8)
  - 5 (25.0)
  - 6 (26.1)
  - 4 (17.4)
  - 5 (21.7)
  - 1

- Resources
  - 3 (13.0)
  - 5 (21.7)
  - 8 (34.8)
  - 7 (30.4)
  - 6 (30.0)
  - 4

- Human Rights
  - 9 (39.1)
  - 6 (30.0)
  - 3 (13.0)
  - 4 (17.4)
  - 7 (30.4)
  - 1

- Environment
  - 3 (12.5)
  - 6 (30.0)
  - 3 (12.5)
  - 7 (29.2)
  - 11 (45.8)
  - 0

(f) Environment
  - 0 (0)
  - 3 (15.0)
  - 5 (25.0)
  - 12 (60.0)
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