# TOWARD THE SUCCESSFUL INTEGRATION OF FEMALE IMMIGRANT STUDENTS INTO SECONDARY PHYSICAL EDUCATION CLASSES 

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#### Abstract

This two-part study provides a two-faceted analysis of female immigrant students' experiences in secondary physical education classes, together with an analysis of the discourse they use to express their feelings about these experiences. This information is needed to facilitate the process of integrating female immigrant students into mainstream physical education classes so they have the opportunity for successful and full participation in these classes. Recent research questions whether immigrant females are receiving equitable treatment in curriculum planning and in physical education classes. My research addresses this issue and should be of interest to those professionals involved in the instruction, design, and promotion of physical education and physical activity programs in which female immigrant students are involved.

The purpose of the first part of this study was to assess the attitudes of female immigrant students toward physical education class and their participation rates in physical activities outside of physical education class. Measures were taken to determine whether attitudes and participation rates differed depending on ethnic background, religion, English proficiency, number of years in Canada and achievement levels. The purpose of the second part of this study was to gain an understanding of how ESL students use language to express their attitudes, opinions and feelings about physical education and to identify the main issues ESL female immigrant students saw as being barriers to their success in mainstream physical education classes.

In order to fulfill the purposes of this study, two types of measuring instruments were developed and two sets of data were collected. First, a questionnaire that obtained background information from subjects and measured their attitudes toward physical education and their participation rates in physical activity was developed and administered. Second, cooperative activities designed to generate language on attitudes toward physical education class were developed. Quantitative data were obtained from


the questionnaire and qualitative data were obtained from the language activities subjects were led through.

Results from the quantitative questionnaire indicated that $26 \%$ of the female immigrant sample had limited background experience in physical education class when they arrived in Canada. Students felt mildly positive about taking physical education class in Canada but less positive than when taking physical education in their native countries. Subjects spent about two hours a week on physical activity in Canada, slightly less than they spent in their native country. While $86 \%$ of the subjects participated in some physical activity in Canada, only eight to $16 \%$ participated in exercise at a level likely to have a positive impact on their cardiovascular health. When subjects lived in Canada, there was no significant difference in subjects' attitudes toward physical education depending on their ethnicity, religion, English language proficiency or number of years in Canada. There was also no significant difference in subjects' participation rates in physical activity depending on religion. Ethnicity did, however, have a significant effect on participation rates in physical activity and participation rates increased significantly as students' English language proficiency improved and as students spent more time in Canada. Also, attitudes toward physical education class were strongly related to achievement in physical education while participation rates in physical activity were not.

Results from the qualitative portion of the thesis focused on how students articulated their feelings on physical education. Analyzed language data showed that ESL students had limited lexicogrammatical resources to describe their feelings, behaviours and reactions. An analysis of the value judgments made showed that students had varying abilities to support their judgments with good reasons. The issue students discussed most often was that English language problems prevented them from communicating with other students and resulted in them disliking physical education and doing poorly. Another issue of great concern for these ESL students was how
difficult it was for them to pair up with native speaking partners. Students felt physical education teachers could do more to assist students with limited proficiencies in English and recommended many good teaching strategies for this purpose.

As a result of this study, physical education and ESL teachers are encouraged to implement strategies which help female immigrant students integrate more successfully into physical education classes. It is essential that teachers respect the linguistic, cultural, racial and religious diversities of their students. Teachers should also include students' heritages in the curriculum as this leads to greater school achievement and to students feeling more highly valued. By using specific cooperative learning strategies, teachers can orchestrate positive interactions between students in their classes in a structured way. By using the knowledge framework to teach language, content and thinking skills to ESL students, teachers can minimize English language demands and access students' first language knowledge. By teaching critical thinking skills, teachers can help students evaluate present situations accurately and make good choices such as establishing how to function in physical education classes more successfully. By teaching ESL students the discourse of value judgments and choice, teachers can help them effectively communicate their feelings and explain their viewpoints using institutionally adequate reasons. ESL and physical education teachers should encourage immigrant females to become involved in extracurricular sport and exercise activities and actively find or create opportunities for their inclusion. The benefits for new immigrant students include developing English language competencies, making friends, improving psychomotor skills, becoming more competent in sports, and feeling better about their abilities.

This study developed a perspective on one aspect of new female immigrant students' education and led to a more sophisticated understanding of the physical education of immigrant students. There is a great need for more studies that examine the experiences of new immigrant female adolescents in sport and exercise.

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## CHAPTER ONE: INTRODUCTION

## Background to the Problem

## Gender Equity and Girls' Physical Education: A Major Curricular Concern

Over the past few decades, the notion of equity has become central to educational and social policy. It is not surprising that in the areas of physical education and sports education, equality of opportunity has become a priority. Rising complaints of sexism and racism in sports have triggered antidiscrimination legislation in the area of physical education in most western countries. In Canada, discrimination by gender or race is prohibited by provincial antidiscrimination laws introduced in the 1970's, by the Canadian Human Rights Code and by the Canadian Charter of Rights and Freedoms (Vertinsky, 1992). The Canadian Charter of Rights and Freedoms ensures that all students, regardless of race, ethnic background, socioeconomic status, sex, or physical condition, have the right to benefit equally from public education programs.

With equity being a leading concern of education in the 1990's, one would expect that in the gym, as in other areas of the school, all students would be treated fairly and with sensitivity and respect. In reality, however, sexism, racism, classism and motor elitism prevail in some physical education classes (Dodds, 1993). Studies of secondary students' views on this subject provide strong verification that physical education can have restrictive, limiting and negative effects (Kollen, 1981). One reason for this may be that the "white, male, heterosexual, middle-class, high-skilled ideology of elite performance in sport appears daily in physical education classes" (Dodds, 1993, p. 30). A second reason is that attitudes and behaviors of physical educators or students can translate into prejudices, stereotyping and discrimination operating in the gym.

Schooling maintains social inequalities by favouring those with access to power and resources. Committed pupils, who share the values and ideals of the school, are keen to obtain credentials and thus do little to interrupt the process of sociocultural
reproduction. The conservative message embodied within physical education appears to be more readily acceptable to those pupils whom the school system rewards most. In this way, sport is used for the purposes of social control and as an instrument of the status quo; obedience to authority, individual effort, competitive struggle and the acceptance of rules are emphasized. Those students alienated from the school system tend to resist physical education along with the rest of the curriculum and undoubtedly do not receive the physical or emotional benefits it offers. These students resist the conservative values that are represented in physical education. Schools, in this way, act to channel different sectors of the population into different roles.

Examples of students who have frequently been victims of prejudices, stereotyping and discrimination in physical education classes are girls, students of color, and poorly skilled participants. Some laws now protect against discrimination of females and students of color but this has not yet translated into equitable physical education for all. For example, physical educators in Vancouver public schools are presently very concerned about meeting the needs of disenchanted female students (Wright, 1993) especially those who are immigrants. Many needs of recent immigrants are not being addressed, largely because their voices are not yet strong or concentrated. Not surprisingly, the immigrant students with the weakest voices are females of color with undeveloped skills in sports.

Governments are beginning to recognize the importance of addressing the needs of immigrants more appropriately. This attitude needs to funnel down into the education system and into the physical education classroom. A recent publication by the Lower Mainland Multicultural Education Project focuses on changes in the population of the Greater Vancouver area. It states that considering the huge growth in the pluralistic nature of the Lower Mainland,
the provision of multicultural education programs can no longer be perceived as adjunct to the mainstream programs. The rapid escalation in the number of ESL
students reinforces the requirement for the development of consistent policies that place equivalent emphasis on the development of such programs as part of the curriculum and school planning process.
(Malatest, R.A. and Associates Ltd., 1992, p. 98)
In this same publication, school districts are warned that ignoring or even not paying enough attention to multicultural education issues could lead school boards to court. Lawyer Wendy Devine advised educators that there are implications from ignoring the legislation in the Charter of Rights, the Human Rights Act and the School Act (R.A. Malatest \& Associates Ltd., 1992). We live in a multicultural society where a physical education teacher must be prepared to meet the needs of students from diverse backgrounds equitably.

Too often in physical education classes the "highly-skilled performers [most often white, male and heterosexual] reap rewards while other students experience the psychological pain of rejection, ridicule or just being ignored" (Dodds, 1993, p. 31). Schools must concentrate on creating physical education programs where all students' interests are served and where all students have access to the rewards of the dominant social system. Equal treatment does not mean all children are treated the same; young people differ in their abilities, interests, resources and previous experiences. Equity in the gym means providing fair, sensitive, and respectful treatment for all students regardless of their personal characteristics. "Equitable Physical Education means that each student, regardless of gender, race or motor ability has the opportunity for successful and full participation and instruction in a variety of physical activities in a supportive interpersonal environment" (Promotion Plus, 1993).

## PHYSICAL EDUCATION CLASS

## REWARDED GROUP

| HIGHLY SKILLED |
| :---: |
| WHITE |
| MALE |

## PREJUDICES

STEREOTYPING
DISCRIMINATION

## STUDENTS OF COLOR

POORLY SKILLED
FEMALES

## AS MANY AS $60 \%$ OF FEMALES ARE NOT PARTICIPATING IN EFFECTIVE EXERCISE

Figure 1 - Common social inequities in physical education classes.

## Immigrant Students in Vancouver Secondary Schools

Researchers and teachers have, over the past few years, become very interested in how to most effectively teach or acculturate immigrant students who have recently moved to Vancouver in great numbers. The majority of these students are "English as a second language" (ESL) students who speak little or no English, or who are not fluent enough in English to compete academically with English-speaking peers. Over the past seven years, the Vancouver School Board has invested large amounts of resources into developing "state of the art" ESL programs (VSB, 1992) and producing materials to support mainstream academic teachers who teach students with limited English proficiency (VSB, 1994).

Presently, the Vancouver school district classifies 53 percent of its students as ESL students (Gunn, 1993). Since 1984, the number of immigrant ESL students entering Vancouver schools has increased from 529 students to a staggering 4,555 students during the 1994-1995 school year (Oakridge Reception Centre, 1995). These students come from over 100 different countries and have unique backgrounds and varying competencies in the English language. For years, many educators have believed that the influx of immigrant students would be a temporary situation. The reality in Vancouver today, however, is that the current immigrant student population is becoming the mainstream.

The majority of ESL students moving to Vancouver enter beginner or intermediate ESL programs (VSB, 1993). Research shows that it takes these students five to seven years, on average, to approach grade norms in English verbal-academic skills (Cummins, 1984). Although ESL students are being systematically taught and challenged to meet these grade norms in academic areas; they may not have the same experience in physical education classes. Unfortunately, up to this point in time, little interest has been shown, or materials and resources developed, in the area of physical education for immigrant students. New immigrant students are often expected to meet the demands of a regular physical education program with no support from a language teacher and with no modifications made by the subject teacher (Gunderson, 1985). These students frequently come from countries where physical activity practices are valued in quite different ways than in Canada (Schwab, 1993). The physical education and English as a second language departments at the secondary school level in Vancouver need to address this issue and adapt their programs to meet the needs of immigrant students. This is especially critical because physical education class is generally the first regular (as opposed to special language) class ESL students are integrated into when they enter a Vancouver secondary school. The reasoning behind
this is that generally, academic English language skills are not required in physical education to the same extent they are in other disciplines.

Developers of physical education curricula in British Columbia also need to address the needs of immigrant students more closely. The British Columbia Secondary Physical Education Curriculum and Resource Guides $(1980,1986,1994)$ are almost entirely devoted to discussing motor skill development. These curriculum guides fail to mention how teachers may address any difficulties immigrant students may have adapting to physical education class. Indeed, none of the provincial or territorial secondary physical education curriculums in Canada address the unique needs of immigrant students in physical education class. The integration of large numbers of immigrant students into physical education classes is a situation which seemingly has been ignored by curriculum developers.

If the needs of immigrant students are addressed, physical education has the potential of being a strong vehicle for teaching language and culture to these new Canadians and of raising their self-esteem. If their needs are not understood or ignored, immigrant students may come away with negative feelings toward physical activity and enrollments in elective physical education classes will likely suffer more than they already have. If immigrant students are not included and their experiences are not validated, they will not feel proud to be part of physical education class or extracurricular physical activities. If this occurs, many immigrant students may never receive the benefits of being a "Physically Educated Person" (British Columbia Ministry of Education, 1991, p. 5) as outlined in the 1991 draft copy of the new Physical Education Primary-Graduation Curriculum/ Assessment Learning Guide. This is especially true of female students, as recent research shows that immigrant females from most ethnic groups seem to face more problems than males in similar groups in adjusting to secondary physical education classes (Carrington and Williams, 1988). Physical education and ESL teachers need to address a number of very important issues
if they wish to successfully integrate immigrant students into physical education classes and interest them in lifelong physical activity. Two of these issues, that this research hopes to bring to the forefront, are a better understanding of the needs of female ESL students in physical education class and a better understanding of the English language development process that must place to help ESL students make their needs in physical education explicit. I hope that this research will be a catalyst in initiating interest and further research into these important issues.

Before continuing with details of my research, it is important to establish the value of physical education and physical activity to the health and well-being of all students. If this study is to be of value, the reader must accept that physical activity is meaningful.

## The Benefits of Physical Activity

Sport scientists and medical researchers have thoroughly examined the effects of exercise on the human body. Positive relationships between regular physical activity, fitness and psychological well-being are well established in the literature. Many studies support the claim that participation in exercise leads to good health and physical fitness and that exercisers exhibit signs of better general health than inactive people (Driver and Ratliff, 1982; Haskell, Montoye and Orenstein, 1985). Examples of the benefit of better health include reduced incidences of illness, fewer doctor visits and less absenteeism from school or work. There is research that indicates that regular physical activity can "delay or prevent the onset or reduce the severity of major chronic diseases" (Haskell, 1984, p. 210). Siscovich, LaPorte and Newman's study (1985) concludes that participation in habitual vigorous physical activity decreases the incidences of many of the major health problems in North America such as obesity and heart disease. Other physiological benefits of regular physical activity include improved work capacity, weight control (Leon and Fox, 1981) and increased stress tolerance (Roth and Holmes, 1985).

Although the physical benefits of physical activity are widely accepted and rarely refuted, the psychological benefits are not as easily established. While the idea that a sound body is related to a sound mind has been presented since the early history of man, studies examining this relationship are often inconsistent (Hughes, 1984). There are, however, numerous studies which show a relationship between physical activity and an improved state of mind (Sime, 1984), lower levels of depression (Stephens et al., 1985), greater emotional stability (Tucker, 1987), lower levels of anxiety (Ross and Hayes, 1988) and increased confidence (Sime, 1984; Tucker, 1987). That healthy bodies are still today thought to be linked to healthy minds is supported by a recent government document that states "intellectual curiosity can develop only in a healthy and active body [hence] our mission is to find ways of making sure that the young people of our country can develop their potential and become healthy, more productive and active members of our society" (Agriculture Canada, 1990, p. 7).

Other researchers such as Duquin (1982), suggest that young women can receive additional psychological benefits from participating in sports. Duquin believes that through sports, young women can test their ambitions, create their own destinies, expand their physical freedom, and assert control. They can learn to experience, develop, risk and choose and through this, gain confidence and strength. These claims are difficult to support factually, as few studies have approached this topic in relation to women's athletics. Many coaches and players, however, would agree that sport can, in some cases, act as a playing field for life. Participating in sports and exercise provides many positive benefits for females of all ages and from all races.

## English Language Skills to Express Affect are Important

A second claim, that must be accepted if this study is to have merit, is that it is important for ESL students (as well as other students) to develop the ability to use the English language to express their feelings and attitudes. The expression of feelings and opinions, in most cases, requires students to go through a process of critical thinking,
that of evaluating the situation in which they find themselves. This process may also lead students to imagine problems and solutions for the situations in which they find themselves. It is important for students to learn this process of thinking critically, evaluating situations accurately, and making good choices. The importance of discourse development of ESL students for the purposes of thinking critically is reviewed here.

Richard-Amato and Snow (1992) list evaluation, analysis and synthesis as the critical thinking skills required of intermediate to advanced language minority students in content classes. Eskey and Grabe (1988) add that critical reading or evaluating the author's arguments is an important skill for ESL students to learn. Benesch (1993) points out that critical thinking skills are used to their greatest potential when students in classrooms are encouraged to raise issues in their daily lives, such as work, school and relationships as topics for class examination rather than deal with issues outside their life experiences. Wallerstein (1983) states that critical thinking begins when people make connections between their own lives and the conditions in the society they live and that ESL students should be encouraged to investigate their own past experiences and develop relationships to the language and politics of their new culture.

Auerbach (1993) labels this form of instruction as the participatory approach to ESL teaching. This approach emphasizes drawing content from the social context of learners' lives and involving them in curriculum development processes. In this way, they are able to affect change in their lives through critical reflection and collective action.

Clearly, this approach to teaching is not traditional and requires perceptive, well trained teachers. The ability of ESL students (or any other students) to develop discourse for the purposes of thinking critically is not intuitive. Students must be taught the language and thinking processes needed to think critically.

## Statement of the Problem

Recent research findings bring up questions about whether immigrant females, particularly those of color, are receiving equitable treatment in schools, in curriculum planning, and in physical education classes. As over half of the students enrolled in Vancouver public schools are immigrants, and close to half of these students are female, officials of the Vancouver School Board and Vancouver teachers should be concerned about servicing the needs of these students, both when planning and teaching programs. Making the integration process of female immigrant students into physical education classes in Vancouver secondary schools a pleasant learning experience needs to be a priority if equitable education practice is a goal.

This two part study was undertaken with the hope of increasing our understanding of how well new immigrant female students are adjusting to, and benefiting from physical education in Vancouver secondary schools as well as understanding the linguistic barriers involved in such adaptations. It seeks to address the gap in the literature regarding these students' perceptions of physical education and participation in physical activity as well as increase our understanding of how comprehensively ESL students use language to express their opinions on these topics. Grade nine students were selected for this study because research suggests that at this age, the needs of females students in physical education are difficult to meet (Godin and Shephard, 1986). The data collected in both parts of this study will also likely provide information that may help to remedy any current inequitable situation of female immigrant students in physical education classes.

Part one of this study attempted to answer the following research questions:

1. What background experiences do the subjects have in physical education?
2. What are the feelings of ninth grade female immigrant students toward physical education?
3. How much time do ninth grade female immigrant students spend participating in physical activity?
4. Are subjects' feelings toward physical education related to their cultural backgrounds, religious beliefs, number of years they have spent in Canada, or proficiencies in English?
5. Are subjects' participation rates in physical activity related to their cultural backgrounds, religious beliefs, the number of years they have spent in Canada, or their proficiencies in English?
6. Are subjects' marks in physical education related to their attitudes about physical education or their participation in physical activities?

For this phase of my research, a questionnaire and quantitative analysis were designed to elicit information on the above six questions from grade nine female immigrant students currently enrolled in physical education classes in three Vancouver secondary schools.

Part two of my research, the qualitative portion, considered the language barriers experienced by female ESL students in ESL language classes through their discussions about their experiences and feelings about physical education and physical activity. This part of the research was exploratory. Here I attempted to answer the following research question:

1. How do ESL students use language to express their feelings about physical education and their participation in physical activity?

This part of the research closely examined seventeen female ESL students currently enrolled in physical education and ESL classes at Killarney Secondary School. These students were led through two hours of cooperative, English language generating activities on their feelings toward and participation in physical education. This data was analyzed to increase my understanding of how ESL students use language to express their attitudes, opinions and feelings on these topics. This knowledge is important to

ESL teachers who wish to empower the ir students with language and communication strategies needed to help them articulate the problems they experience as they attempt to successfully integrate into mainstream physical education classes.

Part 1 and part 2 together provided a 2-faceted analysis of the immigrant student's experience in physical education class, together with an analysis of the discourse used to express their feelings about their experiences. This information is an important tool to educate physical education and ESL teachers about the female immigrant students they are teaching.

| LAWS AND BELIEFS ABOUT EQUALITY | CHANGING MAKE-UP OF SOCIETY <br> IN: <br> - Vancouver Lower Mainland <br> - Vancouver School Board |
| :---: | :---: |
|  | 1984-1995 - the number of immigrant students entering Vancouver schools increases by $860 \%$. <br> $1994-53 \%$ of students enrolled in Vancouver schools are immigrants. |
| THE SCHOOL CURRICULUM SHOULD CHANGE TO MEET THE DEMANDS OF THE NEW SCHOOL POPULATION |  |
|  | Many female immigrant students integrated into regular physical education classes are having difficulties with: <br> 1. motor skills <br> 2. language <br> 3. cultural adjustments |


| PART 1: | What background experiences do female immigrant students have <br> in physical education? |
| :--- | :--- |
| How do female immigrant students feel about physical education |  |
| class? |  |

Figure 2 - The research problem.

## Introduction to Procedures

Part one of my study used a questionnaire to obtain information from female immigrant students. A complete understanding of the experiences of young women requires class, race, age and gender considerations. These issues were handled in the following ways in this research. Age was held constant by including only grade nine (fourteen, fifteen and sixteen year old) students in the survey. This age group was chosen because it is during this transitionary period as females fully enter adolescence, that difficulties in physical education, physical activity and body image often become pronounced. "Grade eight is a critical stage in the development of dissatisfaction with physical education programs. Students entering grade nine are more likely to report annoyance with the discomfort experienced in a physical education program, and express dissatisfaction" (Godin and Shephard, 1986, p. 50). By grade 11, the large majority of girls have dropped physical education entirely, many having developed a lifelong distaste for physical activity (Hall and Richardson, 1982).

All subjects tested were female as this research is designed to describe the experiences and feelings of immigrant female students. Class issues were dealt with by selecting subjects from a cross section of classes. This was accomplished by choosing schools from varying socioeconomic areas of Vancouver. Ethnicity was a very important variable. One of the objectives of this research was to measure ethnicity and determine how students of varying ethnicities responded to the survey. As the largest percentages of recent immigrant students to Vancouver come from Hong Kong (31\%), Taiwan (15\%), Vietnam (9\%), China (7\%), Central America (4\%), Philippines (4\%), Korea (3\%) and India, (3\%) (Oakridge Reception Centre, 1995), these were the main ethnic groups represented in this research. Other important variables were years spent in Canada, level of English proficiency, religion and achievement. This study measured attitudes toward physical education and participation in physical activity and
examined their relationships to ethnicity, time spent in Canada, level of English proficiency, religion and achievement levels in physical education class.

## Definition of Terms

1. Recent immigrant students - Students who have entered a Canadian school from a foreign country some time in the past four years and who have never before lived in Canada or students who have lived in Canada for less than four years of their lives. These students will have spent, at the most, three full school years in Canada. Refugee students will be treated as immigrants in this study.
2. English as a Second Language (ESL) - A program in Vancouver schools through which immigrant students with limited English skills progress before being placed into a grade-level program. The purpose of the ESL program is to teach students enough English language for them to begin to integrate academically with English-speaking peers in grade-level, mainstream or 'regular' classes.

An ESL student is narrowly defined as a student who now attends ESL classes. More broadly defined, an ESL student is any student for whom English is not their first or primary language.
3. Physical education - The part of formal education which utilizes physical activity as a primary means of fostering the intellectual, social, emotional and physical growth and development of learners. Physical education is a subject that most, if not all Canadian students are required to take as part of their education.
4. Physical activity - Leisure-time activities which students choose to involve themselves in where movement is produced by skeletal muscles and energy is expended.
5. Exercise - "A subset of physical activity that is planned, structured, repetitive and has the improvement or maintenance of physical fitness as an objective" (Casperson, Powell and Christenson, 1985, p.127).
6. Sports - Subsets of physical activity that refer specifically to structured games with rules and strategies.
7. Gender equity - The process of allocating resources, programs and decision making fairly to males and females, without discrimination on the basis of sex.
8. Equality - Women at all levels of the physical activity and sport system should have equal opportunities to participate in activities of their choice in the areas of competition, coaching, officiating or administering (Promotion Plus, 1993).
9. Race - Today, race is generally seen as a social construction that is manipulated to define, structure, and organize relations between dominant and subordinate groups. In the past, race has been used to define groups of people having shared features because of common origins (Elliot and Fleras, 1992).
10. Minority group - Any group that is disadvantaged, underprivileged, or discriminated against and occupies an inferior position in society.
11. Culture - The lifestyle of a particular group of people which differs from others in terms of beliefs, values, world views and attitudes about what is right, good, and important (Elliot and Fleras, 1992).
12. Ethnic - A group which shares and identifies with a common language, homeland, and historical and cultural tradition.

## Limitations of the Study - Part One

A number of limitations exist for the first, quantitative part of this study. First, the number of students surveyed from many of the minority ethnic groups (e.g. India, Philippines, Korea, Central America) was not large enough for results to be generalizable to all grade nine female immigrant students in Vancouver Secondary Schools from these countries. In order to make comparisons among diverse cultural
groups, subjects were grouped according to the geographic area they lived in before immigrating to Canada. Unfortunately, the country groups formed, East Asia, South Asia, Hispanic and Other, did not have similar numbers of subjects in them because the majority of students who have immigrated to Vancouver recently have come from East Asia. As a result, the majority of the sample (69\%) are in one group and less than $15 \%$ of the sample are in each of the remaining three groups. Comparisons across cultural groups, then, are valuable because they illustrate important differences, but they have low statistical conclusion validity because of the small sample sizes of three of the groups. Because of this weakness, my research findings concentrated on describing immigrant students as a whole.

One threat to the validity of this study was that schools and students were not randomly selected to be part of this study. Instead, three secondary schools from varying socioeconomic areas of Vancouver were chosen and all female immigrant students enrolled in grade nine physical education at these three schools were surveyed. Results of this study are generalizable to grade nine female immigrant students attending Vancouver secondary schools, though results would be more accurate if it was possible to randomly select students from all Vancouver schools.

The questionnaire, the instrument I used to collect data for my research, has advantages but like any other instrument, has inherent limitations. I chose to use a questionnaire because it is efficient and objective and large numbers of students can easily be surveyed. Also, answers to close-ended questions are easy to compare and analyze. The limitations of the questionnaire, however, are that the reality of students can only be measured through the options given to them. Students cannot add what they might consider to be important information to questions. Reliability of treatment implementation of the questionnaire was high because only one researcher (myself) administered the questionnaire to all subjects. Instructions were detailed, clear and consistent. Inter-observer or internal reliability was high because if two people with
good training gave out the same questionnaire, the same data would have been obtained.
The major disadvantage of using the questionnaire to collect data is a low response rate which can result in a biased sample. This was not a problem in my study as all but two students who were asked to complete a questionnaire, did so. This high response rate likely occurred because the questionnaire was administered during class time with the permission and support of the classroom teacher.

Data collection procedures brought up a number of threats to internal validity. The largest threat was that some immigrant students may not have understood certain questions because of language difficulties. This threat was greatly limited because the researcher taught difficult vocabulary before administering the questionnaire and led groups of students through questionnaire items that had complex grammatical structures. Having only one person administer the questionnaires increased the internal validity of the administration of the questionnaires and ensured that introductions and instructions given to complete the questionnaires were the same for all students. Also, various ESL teaching techniques were used to ensure student comprehension. Other students translated for those who had difficulties understanding. Diagrams, charts and symbols were used in the questionnaire to help reduce language difficulty. The researcher interviewed each student after they completed the questionnaire to determine that they understood the questions they answered. These procedures also minimized threats to construct validity that arose because of cultural differences in meanings of words.

A second threat to internal validity is inherent to any study attempting to measure attitudes. Attitude refers to a person's favourable or unfavourable evaluation of a subject. Asking any students, especially those with limited English proficiency, to evaluate their attitudes toward physical education is difficult. Studies that have successfully assessed attitude toward physical education have usually employed semantic differential scales. Two examples are Crum (1984) who used a 5-point scale
to assess "learning effect" within physical education in secondary school students and Avery and Lumpkin (1987) who applied a 5-point Likert scale to appraise which physical education objectives students considered most important. The questionnaire in my study utilized "happy faces" rather than semantic differential scales because of the limited reading ability of some of the sample, particularly those enrolled in beginner ESL classes. The use of "happy faces" in the place of semantic differential scales has been successfully utilized by many researchers (Schutz et al, 1985). In conclusion, although there are some inherent limitations when dealing with attitudes, this study has utilized procedures that have been successful in many other studies.

A third threat to internal validity is inherent to any study attempting to measure participation rates in physical activity. Surveys throughout North America, that have tried to assess the extent individuals participate in physical activity, have estimated exercise participation at rates varying from 9 to 78 percent of the adult population (Shephard, 1986). The main reasons for the lack of consistency between results are the difficulties of defining an "active" individual and of measuring participation rates accurately.

Two measures of participation in exercise were taken in my study. For the first, students were simply asked to estimate the approximate number of hours per week they spent on physical activity outside of physical education class. The second measurement of participation in exercise taken was introduced by Godin and Shephard (1985) as a simple alternative to other more complex methods of assessing leisure time physical activity. For this measurement, a total weekly activity score was determined from weekly frequency of participation that students identified at each of three intensities of exercise: strenuous, moderate and light. This method of assessing participation in exercise has proven reliability and validity as it was investigated on 306 adults and strong correlations were found when comparing body fat and maximum oxygen intake measures with questionnaire answers (Godin and Shephard, 1985). Both measurements
of physical activity taken for my study were liberal as even activities that required little effort, such as easy walking or fishing, were counted.

A fourth threat to internal validity was that questions about past attitudes toward physical education and past participation in physical activity may not have been accurately answered. Respondents may not have remembered information clearly after a number of years of living in Canada or present attitudes may have distorted respondents' recollection of past attitudes. This threat was controlled for by using only immigrant subjects who have lived in Canada for less than four years.

A fifth threat to internal validity was that students might have given answers that pleased teachers since the questionnaire was given in a school setting. Students may have inflated participation times and given more positive attitudes than they truly felt. In order to minimize this threat, students were assured of anonymity and told that the study did not involve their classroom teacher and would only be of help if they answered honestly.

The results of this study apply only to grade nine female immigrant students who attend public secondary school in the city of Vancouver.

## Limitations of the Study - Part Two

The limitations of the second, exploratory part of the study are much different from the first part because its purposes are different. This part of the research looks at understanding the linguistic demands ESL students experience when attempting to express their attitudes toward physical education using the English language. This part of the study is qualitative; it uses discourse analysis to explore language generated by students with limited proficiencies in the English language.

Exploratory research is a dynamic form of educational inquiry. Its strength is that it is flexible and adaptable to a range of contexts and people. Its major weakness is that reliability is difficult to obtain because the process is personal and different researchers will likely attain different conclusions.

The reliability of this study was improved in four ways. First, the design and data collection procedures were made very clear. A second researcher could easily repeat this study with a similar sample using the directions given. Second, data collection was done as accurately as possible by using tape recorders to mechanically record literal statements of participants and by collecting written authentic materials. Third, data analysis procedures were made clear so that a second researcher could easily find similar examples of what lexicogrammatical resources subjects used to express affect and identify value judgments students made about physical education. Fourth, students were clearly led through cooperative, language generating activities and were well aware of what was expected of them. The researcher and participants shared the meaning of events that took place.

A weakness of the research is that the researcher and participants might have shared that meaning of events that took place in the research too closely as the researcher was a teacher, not an outsider which is optimal for this type of research. It is possible that the researcher had some influence on what language students used, though not on how the language was expressed.

Validity was a major strength in this exploratory research. A complete picture of language expressed about the attitudes of female ESL students toward physical education was obtained, because the researcher took an indepth look at the situation, used descriptive detail, and collected accurate data from a large sample using various activities.

The external validity of this research is also strong because detailed descriptions of subjects, settings and conclusions are given so others are able to understand similar situations. Also, researchers can use the study to extend its findings into further research. Since there is little knowledge available on this topic and the research is primarily descriptive and exploratory, findings cannot, however, be contrasted with prior research.

## CHAPTER TWO: REVIEW OF THE LITERATURE

## Young Women, Race, and Sport

Very little mention has been made of the interrelationship between 'race', sport and gender in research and the writing that has explored this issue is often superficial. The neglect of 'race' in writing about females and sport is not surprising, considering that sport has traditionally been an institution which reproduces relations of privilege and oppression. We have already determined that females, especially those of color who are poorly skilled in sports, are not likely to hold positions of power or privilege. In fact, females of color hold such marginal status in our society that they have historically been silenced in sport (Birrell, 1990).

Though we could learn much from the many varying experiences of females from different cultural groups, very little research has been undertaken on their participation in physical activity, both in physical education class and in their leisure time. The few studies that do shed light on this issue, a number of which come out of England, are reviewed here. Conclusions cannot be generalized to Canadian subjects but certainly do give Canadian researchers perspectives on which to base their own studies.

The lack of data on ethnic group participation in sports in England led to research which explored the relationship between ethnicity, culture and participation in sport and physical recreation (Carroll, 1993). In this study, about 100 male and 100 female subjects, ranging in age from 16 to 30 and identifying themselves as being from the following minority groups: African, Bangladeshi, Caribbean, Chinese, East African Asian, Indian, Pakistani and British White were interviewed. Results showed that sport was the most popular leisure activity overall for males (34\%), while for females sport ranked third ( $22 \%$ ), after passive and social activity. Nearly $50 \%$ of all Bangladeshi, African and Pakistani females and over $33 \%$ of Indian females reported no participation in sport or other physical recreation. Overall, $15 \%$ of men and $29 \%$ of females took part
in no physical activities at all. Males participated in physical activity more than females of each ethnic group.

Conclusions from Carroll's study suggest that religion and cultural factors in ethnic groups act as powerful forces to restrict the participation rates of females in sport. The combinations of, firstly, gender and ethnicity and secondly, gender and religion have a great effect on the general participation of some groups (Bangladeshi, Pakistani, African and Indian) of females in physical recreation activity. To be female and a Muslim, Hindu or Sikh, from any of the Asian groups (Bangladeshi, Pakistani or Indian) is likely to result in a lower participation rate.

Research done on high school students in England yielded similar results. Carrington and Williams (1988) found South Asian Muslim children face difficulties in physical education and ethnicity heightened gender differences, with girls facing more problems than boys. According to Carroll and Hollinshead (1993), problems between Asian pupils and their physical education teachers and between pupils and parents, result from conflicting cultural expectations in physical education. Cultural traditions which greatly affect participation include the use of changing facilities, the wearing of clothes for physical education class which leave parts of body uncovered, coeducational physical education classes, and fasting rituals of Ramadan. These researchers conclude that equal opportunity policies have little chance of succeeding if cultural and religious traditions and values are not taken into consideration and if Asian communities do not value physical education and sport. This viewpoint is supported by research that shows that despite teachers' commitment to equal opportunity policies, there has not been an increase in Asian girls' participation in physical education (Carrington et al, 1987).

The preceding three studies have been heavily criticized because they are based on a Eurocentric framework, fail to ask the 'correct' questions about the leisure experience of Asian women, and fail to address the racist practices in British society. Raval (1989) states that in these studies, problems Asian girls encounter as they pass
though the education system are explained only through the notions of 'cultural clash' and 'inter-generational conflict' and the possible existence of racist, sexist and inequitable treatment are dismissed. She believes that educators and researchers must break away from a narrow Eurocentric mode of thinking which devalues other cultures and experiences.

Researchers are beginning to question why so little information has been collected on the sporting experiences of females from diverse ethnic groups. Recently, the absence of females of color from sport research has been substantiated and there has been a strong call for culturally diverse ethnic females to break the silence and talk or write about their experiences in sport (Birrell, 1990; Smith, 1992). At the same time, there is recognition that this is unlikely to occur if white Anglo researchers "remain in their old theoretical homes" (Birrell, 1990, p. 195) and use their "ready made theories to explain the lives of others" (Lugones and Spelmen, 1983, p. 581) from the Eurocentric perspectives of the world. There is a great need for research that addresses the issue of what it means to be a female of color in North American society and sport.

## Young Women's Participation in Physical Activity

Surveys throughout North America have tried to measure the extent individuals participate in physical activity to determine the percentage that are receiving positive health benefits. There is little consistency between results in these surveys, largely because of the difficulties of defining an 'active' individual and of measuring participation rates accurately. Lack of agreement on criteria for these two measures has led to various national surveys estimating exercise participation at rates varying from 9 to 78 percent of the adult population. A fair conclusion about the number of North Americans currently participating in exercise at a level likely to have a cardiovascular training effect would be 15 to 20 percent (Shephard, 1986). Another 35 to 40 percent likely exercise fairly regularly by their own definition of regularity, while the remaining 40 to 50 percent are almost totally inactive (Shephard, 1986).

Canada's fitness surveys show that the participation rate of Canadian females in sport activities has increased substantially since 1976 and women are now almost as active as men (Canada Fitness and Amateur Sport, 1993). Seventy-two percent of females aged fourteen and over participated in physical activity in 1981, compared to 46 percent in 1976. These statistics show that significant advances have been made in the past few decades for women in their pursuit of physical activity and sport. These statistics, however, do not tell the whole story.

When Canada Fitness Survey results are looked at more closely and other Canadian research done in the 1980's is considered, it is clear that in many areas, the status of females, as participants in physical activity and sport, is still considerably lower than that of males (Shropshire, 1988). First, when more rigorous definitions of 'activity' are used for the 1981 Canada Fitness Survey, the ratio of males to females who participate in physical activity is about 1.6:1.0 (Stephens et al., 1985). Some studies identify as many as 60 percent of women as being inactive in effective exercise (Fazey and Ballington, 1992; Brooks, 1987).

Second, the survey shows that females at any age do not participate in the same full range of activities as males (Lenskyj, 1986). Females express a strong interest in individual lifetime fitness activities such as walking, swimming, cycling, home exercise and exercise classes. Neither girls nor women rank any competitive team sports among their ten favorite physical activities. This mirrors the commonly held attitude that team sports are generally not seen as appropriate as certain individual sports for girls (Cahper, 1993). A result of this attitude is that the number and variety of sporting opportunities for girls are less than those for boys both in school and in the community. Also fewer resources such as facility time and finances are allocated to female activities (Dahlgren, 1988).

Third, despite the fact that girls state they wish to be more active, they rank physical activity sixth among factors contributing to well-being. Boys rank physical
activity first (Canada Fitness and Amateur Sport, 1984). Girls do not seem to value physical activity as highly as boys.

Fourth, physical education teachers have, for many years, been concerned with the apparent loss of interest and dropping out of many adolescent young women from physical education classes (Scraton, 1987). Recent Canada Fitness Survey findings verify this concern as they note a drastic decline of female activity levels beginning in adolescence. A result of these two factors is that teenage girls, in relation to boys, score poorly on fitness tests, especially when cardiovascular fitness is measured (Canada Fitness and Amateur Sport, 1983). Today, physical educators across Canada and the U.S.A. continue to have great concerns over the low numbers of physically active adolescent females, their attitudes toward physical education and their lack of movement skills (Capher, 1993). The 1990 United States Youth Risk Behavior Study, for example, shows that only $7.8 \%$ of Grade 12 girls attend physical education classes (Vertinsky, 1992). This study concludes that female adolescents have a great need for regular physical activity in order to stay healthy and increasing the low participation of girls in physical education in high school would be one avenue to this goal.

## Societal Constraints to the Participation of Females in Physical Activity

When reading these research results, one begins to wonder, 'What societal constraints and attitudes are operating to limit the participation of females in physical education and exclude their participation in a full range of physical activities and sports?' The following conclusions from researchers who have studied this issue must be considered when examining this question.

First, women are less able than men to be actively engaged in sports without compromising their gender role as defined by society. Sport, with its masculine image poses a potential role conflict for certain women (Sage and Loudermilk, 1979; Evans, 1984). The masculine image of sport is reinforced by the media and by the
categorization in peoples' minds of sports being appropriately 'male' and 'female' activities (Klein, 1988).

An awareness of the dynamics of patriarchy is necessary to develop an understanding of the position of women in sport. Only since the 1980's have researchers even really begun studying the experiences of women; in the 1970's, almost all research focused on white, working-class males (McRobbie and Garber, 1976). Perhaps as women become more visible in sport research, a better understanding of why a womans' femininity is threatened by sport will be gained.

Second, society's expectation for women is one of inactivity, passivity, and neatness, not one of running around and getting dirty or sweaty. Young women are immersed in a culture of femininity and romance reinforced by the magazines they read, television and everyday experiences. Physical education is often not compatible with this lifestyle which revolves around the intense task of 'getting a man' (Scraton, 1987). The media and society constantly give young women the message that the most important aspect of their lives should be their relationship with men (Leaman, 1984).

Third, relationship patterns among and between males and females add an interesting dimension to why so few women participate in physical activity. In childhood and adolescents, boys usually form loose group companionships while girls tend to form small, intense friendships with a best friend or small group (Griffin, 1981). The female arrangement does not relate as easily to collective team situations as the male model does. This may explain why women are not expected to revel in group camaraderie and team spirit to the same extent that men are (Leaman, 1984). When young women begin relationships with young men, they are more likely to break off their friendships with other females while men continue to retain their male group membership. Before these heterosexual relationships begin to fragment supportive feminine cultures, various constraints are already working to discourage women from forming large cohesive groups. Examples of this include little access to 'space' like
sports facilities and street comers, less access to private transport and threat of violence on the streets. Later on, family and domestic responsibilities are added to this list. In this way, young women's sexuality becomes controlled (Griffin, 1981).

As well as preventing women from forming large groups, these constraints limit leisure time needed for women to participate in physical activity. Ironically, women physical education teachers often state that preparation for leisure is one of the most important objectives for the teaching of physical education. Research confirms, however, that few adult women continue with any sport or physical activity done at school, once they had left, because of constraints on their leisure time (Scraton, 1987).

Fourth, school physical education often fails to be meaningful to young women because the development of muscle, the use of communal showers and changing facilities and the low status activities are at odds with the culture of femininity. Showering and dressing in large, group changing rooms cause a great deal of anxiety for adolescent young women because their body shape may not conform to what they believe is the ideal feminine stereotype in our culture. The problem is not so much one of physical appearance but the desire of young women to have a physique that is sexually acceptable (Scraton, 1987).

The female response to the anxiety felt over these issues may be to drop sport activities or participate only in feminine pursuits such as dance or aerobics. Adolescents may also show forms of resistance to physical education by refusing to wear correct physical education clothing, by demanding to wear jewelry and make-up or by being sullen, silent participants who let boys dominate lessons (Scraton, 1987).

Fifth, the expectation of society is that girls are less skilled physically than boys. This leads to a self-perception of inferiority in the motor domain and the avoidance of girls to demonstrate their lack of competence in sports (Greendorfer, 1983). Generally, people do not put themselves into situations which are beyond their competence level (Nicholls, 1984). The result is the failure of girls learning new skills and thereby
developing a full range of motor skills. This cycle of inactivity, perceived incompetence and avoidance of sports feeds on itself. Because girls do not succeed at physical activity, they decide that many forms of physical activity are inappropriate for them. If women were able to achieve higher perceived athletic competence, this cycle would no doubt be broken and women's participation rates would increase (Deci, 1975).

Females living in the 1990's still face deep-rooted barriers to opportunities for participation in physical activities. Some of the challenges to meet to break down these barriers for young women include the provision of a fuller range of sport programs, more meaningful physical education programs for young adolescents, more equitable facility and financial allocation, greater media coverage and higher expectations to succeed.


Figure 3 - Why few women participate in sports.

## Coeducational Physical Education and Gender Equity

During the 1980s, many physical educators began to show a heightened awareness of the need for equality of opportunity for males and females in sport and physical education (Vertinsky, 1983; Carrington, Chivers and Williams, 1987). An equal opportunity rationale for coeducational physical education was developed in response to this shift in thinking. This rationale argued that mixed sex grouping is a progressive development which offers equal access to the physical education curriculum (Browne et al., 1985). Research done since this time, however, has shown that mixed sex grouping is not an automatic route to equality between the sexes. Equating coeducation with equal opportunities, is not as simple as once thought (Mahony, 1985; Talbot, 1993).

Research into classroom interaction in mixed settings indicates that on the whole, boys have far more contact with the teacher, receive more attention, talk more in class and are far more visible than girls (Spender, 1982). Evidence shows that teachers make more effort to accommodate boys' needs and demands in mixed classes in order to avoid potential disruptions by boys (Talbot, 1993). Girls get less attention and help, are less involved and take on a peripheral role. They experience more embarrassment and lack of confidence in coeducational as opposed to single sex classes and must put up with the verbal and physical dominance of boys. Incidences of sexual harassment also become a problem in mixed settings.

Another negative effect of coeducational classes is that fewer women end up teaching physical education classes. Men, who generally have more seniority, end up taking over their positions. Male teachers generally also take over department head positions and often get more control of resources (Scraton, 1993). For these and other reásons, coeducational physical education, as it has been taught over the past decade, has not solved the problems of inequality.

There are many reasons why the so-called progressive move of implementing coeducational physical education has provided only superficial challenges to sex discrimination and stereotyping. First, coeducational physical education can as easily announce as dissipate the stereotypical conceptions of gender held by both students and their teachers. If teachers continue to reinforce and reproduce dominant Eurocentric masculinity, then girls will be excluded from many sporting events because they will not have the power or means to challenge these ideologies. Second, often the rationale for offering coeducational physical education is diminishing resources or convenience, not a committed educational philosophy. If gender equality is not a goal, it will likely not be an outcome. Thirdly, if the sexes do not stand equal on admission to secondary school, then offering both girls and boys the same opportunities and facilities cannot lead to equality of opportunity or equality of outcome (Deem, 1984).

The challenge, in a mixed setting, is that the reproduction of hegemonic masculinity does not oppress and subordinate young women to an even greater extent but encourages young women to be assertive and allows them to develop, through physical education, in a way that challenges patriarchal relations. The following are conditions that must be considered in relation to coeducational physical education if equity is to be gained. First, gender and sexuality must be placed high on the agenda of initial teacher education and in-service education. Second, stereotypes of masculinity and femininity must be challenged through an awareness of language, the use of role models in demonstrations and direct intervention by teachers when pupils stereotype. Third, there must be a greater sensitivity to, and awareness of, the pressures on young women regarding body shape and appearance. Fourth, dominant masculinity that wields power and control over girls must be challenged. Fifth, staff changes must be monitored so female staff don't lose out (Scraton, 1993). If the goal of equality is to be attained, girls must receive opportunities, time, space and understanding to redress the traditional base of gender imbalance. One way to reach this goal might be to tailor
programs to meet the needs of disenchanted female students (Wright, 1993). Another way might be to develop new sports which involve no great disparity in skill or strength and could be enjoyed equally by boys and girls. Both of these suggestions require the input of local professionals (Leaman, 1984).

Research and observations in secondary schools in Vancouver support the above claims. The Vancouver School Board directed all secondary schools in Vancouver to commence coeducational physical education for all grades by September 1992 because it believed this would improve opportunities for girls. While this edict has resulted in some positive changes, overall it has proved to have a negative impact on the retention of girls in physical education classes. Observed positive changes include enhanced student socialization and student-staff rapport. Problems include change-room supervision, male/female class imbalance, sexual harassment concerns and girls becoming less engaged in physical activity where boys dominate classes (Wright, 1993).

## An Evaluation of Coeducational Physical Education in Vancouver Secondary Schools

An extensive quantitative study of coeducational physical education classes in Vancouver secondary schools was recently published (VSB, 1996). Questionnaires, administered at all 18 Vancouver secondary schools, were used for data collection. Respondents included 3046 students, 624 parents, 73 physical education teachers and 11 administrators.

The questionnaires for all four audiences contained closed-ended questions in the form of multiple choice and Likert scale questions and open-ended questions. Most Likert scale questions used the following scale: strongly agree, agree, disagree, strongly disagree and not applicable. The questionnaires were administered to students in some grade 8 to 12 classes at all Vancouver secondary schools by their physical education teachers. Students filled out the questionnaires during one physical education class period. Every student who completed a questionnaire was given a questionnaire for
his/her parents to fill out. The response rate for students, teachers and administrators was good. The response rate for parents, however, was poor; only about one fifth of the parents who received questionnaires completed them. The external validity of the student and teacher questionnaires was high as the sample sizes were large and subjects were chosen from all schools and all grade levels. The results of this research can, with confidence, be generalized to all Vancouver secondary school students and teachers.

Finding of this study support the claim that coeducational physical education is not an automatic route to equality between the sexes and can, at times, have detrimental effects on the participation of female students. For example, about $70 \%$ of students agreed that males dominate the play in coeducational classes. A prime concern stated by both female students and parents was that physical education may reinforce gender stereotypes if males dominate the play and females tend to be passive.

Students report that boys tend to discriminate against unathletic girls.
Girls who feel they are lacking athletic ability hold back from participating, do not get passed the ball, feel discouraged, and stop trying to improve their skills. They report a lack of enjoyment and a tendency to start hating it.
(VSB, 1996, p. vi)
A number of positive effects of coeducational physical education were also identified in this study. About $70 \%$ of students in coeducational classes were in agreement that participation in coeducational physical education improved their confidence levels in relationships with the opposite sex. In contrast, $60 \%$ of students in same sex groups reported that same sex classes had not helped them relate to the other sex.

There were no differences between students in coeducational and same sex classes in showing respect for each other in class, cooperating with each other and
demonstrating positive attitudes towards physical education. About $75 \%$ of students in all classes agreed that students in their classes demonstrated these three qualities. Another similar finding was that $73 \%$ of students in both coeducational and same sex classes agreed that both girls and boys participate in all activities offered in their physical education class.

Coeducational physical education, then, has its advantages and disadvantages. Student attitudes toward coeducational physical education classes provided additional insights into which students in this study benefited most from coeducational classes. For students in grades 8 to $10,68 \%$ of females and $49 \%$ of males enrolled in same sex classes agreed that they liked having same sex classes. Sixty-four percent of grade 8 to 10 students in coeducational classes (more females than males) liked same sex classes. Thirty-three percent of the senior coed group reported they liked having same sex classes while $67 \%$ reported they preferred coeducational classes. Females' preferences were similar to males. These figures indicate that more young female than male and older female students preferred same sex as opposed to coeducational physical education.

In addition to demonstrating that young female students prefer same sex physical education classes, this study indicated that teachers also prefer same sex classes. Teachers generally displayed negative feelings toward coeducational physical education. The majority of teachers ( $70 \%$ ) did not believe that coeducational physical education has benefited their physical education program. An overwhelming majority of teachers $(90 \%)$ were not in favour of having all activities coeducational. A majority of teachers believed that males tend to dominate the play in coeducational physical education classes and an overwhelming amount of teachers ( $81 \%$ ) worried that coeducational physical education activities created more safety concerns than same sex classes. Fifty-six percent of teachers were opposed to continuing coeducational physical education classes.

Even though teachers and young female students expressed negative attitudes toward coeducational physical education, the study made recommendations for schools to have increased flexibility in choosing coeducational or same sex physical education classes. A criticism of this study is that it greatly downplays the preference that grade 8 to 10 females had for same sex physical education classes

This study contained additional information on three areas that are very relevant to my study: participation rates of females and males in sports, reasons females and males have for dropping physical education and concerns expressed on participation in coeducational physical education because of cultural or religious reasons.

The same percentage of males and females participated in extramural sports ( $40 \%$ ) but more males ( $37 \%$ ) than females ( $27 \%$ ) participated in intramural sports.

The most common reasons females gave for dropping out of physical education classes at the end of grade 10 were that physical education was not enjoyable (57\%) and that classes conflicted with other courses in the timetable ( $36 \%$ ). The most common reasons males gave were a desire to pursue academic courses in place of physical education (36\%) and classes conflict with other courses in the timetable (31\%). The finding that $57 \%$ of females, compared to $18 \%$ of males, dropped physical education because they did not enjoy it, suggests that the needs of females are not being met to the same extent that those of males are in physical education class.

The main suggestions students gave for improving participation in physical education were for them to have more choice in what is offered (36\%), more variety in activities ( $26 \%$ ), for physical education classes to be less competitive and more cooperative ( $10 \%$ ), for teachers to be more supportive and involved ( $8 \%$ ), and for evaluations to be based on effort, not skill (7\%).

Results on concerns expressed on participation in coeducational physical education because of cultural or religious reasons demonstrated differences of opinions between parents, students and teachers. Less than $1 \%$ of parents and $2 \%$ of students
expressed objections to students' participating in coeducational physical education because of cultural or religious reasons. Teachers, however, expressed many concerns over cultural issues. Forty-four percent of teachers were concerned that it is not appropriate for females to be aggressive in some cultures, $30 \%$ were concerned about children from different cultural backgrounds who have had no prior physical education, $20 \%$ were concerned that students from some cultures place a different value on physical education, $18 \%$ were concerned that some cultures do not want males and females to be together, and $14 \%$ were concerned about students having difficulties because of language barriers. It is noteworthy that while many teachers expressed anxieties over cultural issues, few parents and students articulated similar concerns. These results suggest that difficulties between Asian pupils and their physical education teachers resulting from conflicting cultural expectations in physical education, were not nearly as evident in Vancouver schools as they were in the schools in England where Carrington and Williams (1988) and Carroll and Hollinshead (1993) did their research.

The main suggestion this study gave for achieving gender equity and for improving participation in physical education, was to give students more choice in selecting which activities are included in physical education programs. Other suggestions made were to have different levels of coeducational physical education according to individual ability and to include some coeducational and some same sex activities in programs. Teachers also suggested that providing reasonable options and fun choices positively influences student participation and that better role models for girls would help increase girls' participation in physical education.

The Successful Integration of English as a Second Language Students into Mainstream Classes

The majority of immigrant students in physical education classes are English as a second language (ESL) students. All physical education teachers, who have ESL students enrolled in their classes, need to be familiar with the research on how to
successfully integrate ESL students into mainstream content courses. This research addresses how mainstream teachers can best teach students with a deficiency of the English language.

Naturally, ESL students enrolled in mainstream grade 8 to 12 classrooms need to use language to learn content area information. These students are metacognitively mature enough to study content materials but lack the language skills required and as a result require assistance to keep up with their age appropriate peers. Cummins (1981) researched the rates of acquisition for cognitive academic language proficiency (CALP), and concluded that it takes at least five years, on average, for immigrant children, who arrive in the host country after the age of six, to approach grade norms in CALP in the new language they are learning. Cummins further noted that language assistance in the second language in most schools is only provided for the first two years. Collier (1987) also examined academic language proficiency in relation to age and rate of acquisition and found that ESL students aged 12-15 may require up to 6-8 years to attain grade level academic language proficiency. Collier concludes that students' academic learning should not be put on hold until their English language proficiency is comparable to their native English speaking peers.

Early, Thew and Wakefield (1986) compared ESL texts and regular content area curriculum guides and found that ESL texts often do not cover as many core content area thinking skills as are commonly found in school curricula. Shih (1992) also found that reception ESL class students were not taught necessary strategies to complete academic reading and writing tasks. These findings suggest that ESL teachers need to use whole, authentic content area materials and assign tasks that are comparable to mainstream tasks in order to ensure that students acquire the necessary skills and are able to utilize them when they enter regular classes.

Gunderson's (1985) survey of B.C. teachers showed that the large majority of mainstream teachers did not modify instruction to meet the needs of their English as a
second language students. Winningham (1990) identified the need for more activity type tasks, less teacher talk, more cooperative learning strategies and consultation and collaboration between ESL and content teachers.

This body of research presents the following implications. First, one or two years of English support is inadequate for English as a second language students to survive in content area courses. Second, students need to be introduced to the thinking skills and tasks required of them in mainstream classes as soon as possible. Third, once mainstreamed, both students and content area teachers need continued support to meet these students' academic learning integration needs. Content based language teaching has been suggested as a response to meet these needs. Recent research clearly shows that "integrating language and content--learning the content material and the language needed to understand the content at the same time--is more effective than simply learning language and only then trying to learn content (Law, 1990, p. 148). This integrative approach recognizes that "ESL students need to acquire English, as well as learn difficult subject matter through English" (Mohan, 1986, p. 3).

That English as a second language students are mainstreamed immediately into physical education classes in most Vancouver Secondary Schools, rather than being segregated in ESL physical education classes, is a good thing in that these students are exposed to authentic content area materials and tasks immediately. As the research above shows, however, physical education and ESL language teachers need to work together to develop programs and strategies to support students as they struggle to adjust to a new education system. "Content-area teachers need to learn how to 'shelter' their instruction and language teachers need to learn how to integrate better academic language and content in their classrooms" (Crandall, 1993, p. 119).

Researchers have proposed several different strategies for integrating language and content. It is important for physical education teachers, as it is for all mainstream
teachers who instruct ESL students, to become proficient in using these strategies if they are serious about helping the ESL students in their classes.

First, task-based or experiential learning, where the emphasis is on doing and creating, benefits the ESL student greatly (Mohan, 1990). As students engage in a task (a process), both language and content can be taught. Because physical education is largely a task-based subject area, physical education teachers are very familiar with this strategy.

Second, effectively using cooperative learning and other group work to complete tasks is critical. "Cooperative learning promotes authentic language use and encourages students to interact" (Crandall, 1993, p. 117) as well as sets up opportunities for students to share insights and together construct new knowledge. There are many opportunities in physical education for cooperative learning activities.

Third, teachers of mainstreamed ESL students need to use the background of the students and their native language and culture as tools in the teaching of the new language and culture. There is much research that presumes that linguistic and sociocultural knowledge are acquired together (Halliday, 1986; Ochs, 1988). Content or knowledge should always be closely tied to language. This point has great implications for the physical education teacher, who with a greater awareness of students' background experiences and attitudes towards physical education class, can better understand and meet the needs of his/her students.

Fourth, Mohan (1990) identifies a set of knowledge structures that help bridge language and content areas. This knowledge framework has been used in Vancouver schools over the past seven years as a tool to teach content and thinking skills to ESL students who have minimal English language skills. ESL students are taught thinking skills, and key structural vocabulary with the use of key visuals as scaffolding for content vocabulary which they learn. The knowledge framework is made up of six major types of knowledge that are divided into theoretical structures (classification,
principles and evaluation) and practical structures (description, sequence and choice). Each of the six structures or boxes has thinking skills associated with it.

| CLASSIFICATION | PRINCIPLES | EVALUATION |
| :---: | :---: | :---: |
| Classifying Categorizing Defining | Explaining <br> Predicting <br> Interpreting data <br> Drawing conclusions Generalizations (cause, effect, rules, strategies, theories) | Evaluation <br> Judging <br> Criticizing <br> Justifying <br> Recommending <br> Stating opinions |
| Observing <br> Describing <br> Naming <br> Comparing <br> Contrasting | Sequence <br> Chronological order <br> Cycles <br> Processes <br> Narration | Personal opinion Making decisions Problem/ solution |

Figure 4 - Knowledge Structures Common Across Curricula The Knowledge Framework (adapted from Early, 1990, p. 83)

Each of the six structures or boxes also has certain visual and semantic features associated with it. Key visuals are graphic representations of the text (or knowledge structures) which show relations between ideas and lower the language barrier (Early and Tang, 1991). Examples of key visuals include maps, graphs, tables, webs and flow charts (see Appendix A). Lexico-grammatical features related to each of the knowledge structures are presented in Apendix B.

This system is useful for ESL students because many of them have knowledge in their first language that can be accessed if the English language demands are not overwhelming. Thinking skills, key structural vocabulary and key visuals help by
displaying essential information without language overload, by explicitly depicting relationships and by accessing background knowledge (Early, Thew \& Wakefield, 1986). Many teachers are finding that native Canadian students are also benefiting from this method of teaching.

Physical education teachers need to develop skills in using the knowledge framework so they can more effectively teach the "extensive body of knowledge which is essential for learners to acquire, if they are to fully develop as a physically educated person" (B.C. Ministry of Education, 1991, p. 16). Examples of knowledge and understandings that need to be taught are found under curriculum objective 5 in the B.C. Physical Education Curriculum/Assessment Framework (B.C. Ministry of Education, 1991). They include rules, strategies and officiating of sports; physiological, psychological and sociological concepts; elements of first aid; body functions; and safety issues. The knowledge framework is also a useful method of teaching curriculum objective 6 for which "learners need to exercise their thinking processes in active and inventive ways to develop the ability to create and modify physical activities" (B.C. Ministry of Education, 1991, p. 18). The knowledge framework can also be useful in teaching curriculum objectives that deal with assessing physical fitness and designing physical fitness programs.

## The Language of Evaluation and Choice

ESL students can be greatly empowered to succeed if mainstream teachers use the knowledge framework in their instruction. The boxes of the framework that my research focused on are those of evaluation and choice. As female immigrants express their feelings and opinions on physical education in English, they must go through a process of critical thinking, in the form of evaluating their situation. They may also go beyond this and imagine problems and solutions for the situations in which they see themselves. An important general goal for teachers of ESL students is to guide ESL students through this process so ESL students learn to think critically, evaluate
situations accurately and make good choices. The importance of discourse development of ESL students for the purposes of thinking critically is reviewed here.

Shih (1992) argues that one of the main demands on ESL students enrolled in academic classes is critically reacting to the content. Richard-Amato and Snow (1992) list evaluation, analysis and synthesis as the critical thinking skills required of intermediate to advanced language minority students in content classes. Eskey and Grabe (1988) add that critical reading, or evaluating the author's arguments, is an important skill for ESL students to learn. Benesch (1993) points out that critical thinking skills are used to their greatest potential when students in classrooms are encouraged to raise issues in their daily lives, such as work, school and relationships as topics for class examination, rather than deal with issues outside of their life experiences.

Critical thinking begins when people make the connections between their individual lives and social conditions. It ends one step beyond perceptiontowards the action people take to regain control over social structures detrimental to their lives.
(Wallerstein, 1983, p. 16)
ESL students should be encouraged to investigate their own past experiences and develop relationships to the language and politics of the new culture.

Auerbach (1993) labels this form of instruction as the participatory approach to ESL teaching. This approach emphasizes drawing content from the social context of learners' lives and involving them in curriculum development processes. In this way, they are able to affect change in their lives through critical reflection and collective action. The teacher's role is to identify problematic aspects of learners' lives, present them to learners as content for dialogue and literacy work and guide reflection on individual experience to more critical social reflection that can lead to collective action and social change. Learners should be guided "through a process of comparing
experiences, analyzing their commonality and root causes, and imagining alternatives" (Auerbach, 1993). In this way, learning and society can be transformed.

Clearly, this approach to teaching is not traditional and requires insightful, well trained teachers. The ability of ESL students (or any other students) to develop discourse for the purposes of thinking critically is not innate and cannot be assumed. Students must be taught the language and thinking processes found in the evaluation and choice boxes of the knowledge framework in order to develop these skills.

Results from the research outlined above suggest that content based language teaching addresses many of the needs of ESL students who are integrated into mainstream classes. By combining strategies such as cooperative learning, participation in sociocultural activities or tasks, analyzing knowledge structures found in content area material, providing key visuals to summarize content area readings and implicitly teaching critical thinking skills, English as a second language students, who are mainstreamed, may be greatly empowered to succeed.

One extremely important aspect of promoting equality of education for all students is for mainstream and ESL teachers to develop effective strategies of teaching the English language to their ESL students. Far more research on how both ESL and physical education teachers can more effectively teach students English to succeed in physical education needs to be done.


#### Abstract

Summary The first part of this literature review examines research relevant to the quantitative portion of my thesis. Specifically, it explores the interrelationships between young women, ethnicity and participation in physical activity, both in physical education class and in their leisure time. Details on participation rates of Canadian women in physical activities and discussions on why young women do not participate in sport activities to the same extent as young men are presented. The advantages and disadvantages of coeducational physical education from the viewpoint of young women


are also discussed. Lastly, an evaluation of how physical education programs in Vancouver secondary schools are meeting the needs of young women is presented.

The second section of this literature review examines research relevant to the qualitative portion of my thesis. The language and thinking skills English as a second language students need in order to successfully integrate into mainstream classes are discussed here. Research completed on strategies teachers can use to support ESL students as they adjust to a new education system are also presented. Details on how teachers can guide ESL students through a process of thinking critically, by investigating their own past experiences, evaluating their attitudes and making good choices are introduced.

The objective of my thesis is to obtain information from female students enrolled in physical education and ESL classes that will integrate the two bodies of knowledge presented in this literature review. By accomplishing this, the voices of a group of low status students (young minority women with limited proficiencies in English and low skill levels) will be heard. In addition, a new kind of understanding of the physical education of these students that is more attentive to the diversities of minority groups and more informed by the realities of their experience will result. Hopefully this new understanding will motivate teachers as well as policy makers to take action in implementing strategies to assist female immigrant students in integrating into physical education classes more successfully.

## CHAPTER THREE: RESEARCH DESIGN

In order to fulfill the purposes of this study, two types of measuring instuments were developed and two sets of data were collected. First, a questionnaire, which obtained background information from subjects and measured their attitudes toward physical education and their participation rates in physical activity in their free time, was developed and administered. Second, cooperative activities designed to generate language on attitudes toward physical education class were developed. Quantitative data were obtained from the questionnaire and qualitative data were obtained from the language activities subjects were led through.

## Part One - Quantitative Research

## Questionnaire

The first part of my research is quantitative and descriptive. A questionnaire (Appendix 3) was used for data collection as information from a large number of respondents is easily obtained and the data analysis for closed-ended questions is relatively easy and accurate. Seventeen grade nine physical education classes from three Vancouver secondary schools were surveyed to enhance the generalizability to other grade nine female immigrant students enrolled in secondary schools in the Vancouver school district.

The questionnaire contained closed-ended questions in the form of multiple choice and Likert scale questions. An open-ended pilot questionnaire was conducted in order to generate salient factors for multiple choice items. The questionnaire was pilot tested to ensure the questions and procedures would yield data suitable to address the research questions.

I administered the questionnaires to the 109 student participants. This ensured standardization of implementation of the testing procedure and increased reliability. Permission was obtained from the Vancouver School Board and from the principals,
teachers, parents of the students and students involved in the survey. Students chosen to take part in this survey were given advanced notice and took a permission form home to be signed by their parents. All selected students filled out the questionnaire which was administered during a class period convenient for both their teachers and myself. The students were able to complete the questionnaire in less than one hour, during one class period. The sites used for administering the questionnaire were empty classrooms, sections of the cafeteria and empty gymnasiums.

## Subjects

Subjects included 109 immigrant students attending public secondary schools in Vancouver. All participants were fourteen to sixteen years old and had lived in Canada for four years or less. All attended Killarney, Eric Hamber or Templeton Secondary School. These three schools were chosen because they represent varying socioeconomic areas of Vancouver. Census data obtained from the city of Vancouver (1991) for 1990 divides Vancouver into five areas according to the number of households with income less than $\$ 25,000$. For this study, one school was chosen from the lowest number of poor households, one from the middle group and one from the highest group. According to the census, 0-500 poor families live in the Eric Hamber area, 1000-1500 live in the Killarney area and over 2000 live in the Templeton area.

I surveyed immigrant students in all grade nine coeducational or girl's physical education classes at each of these three schools. Killarney had seven blocks of grade nine girl's physical education classes, Eric Hamber had five blocks, and Templeton had three blocks of girl's and two blocks of coeducational physical education. Immigrant students, who had resided in Canada for four years or less and were present on the days I surveyed the class, were asked to fill out questionnaires. In total, 40 Eric Hamber students ( $37 \%$ ), 41 Killarney students ( $37 \%$ ) and 28 Templeton students ( $26 \%$ ) completed questionnaires. The classes selected had a total of nine different teachers, three from each school. This helped to control for the threat of selection bias that
existed because subjects were not randomly selected. Sixty-one percent of the immigrant students surveyed for this research were ESL students and were enrolled in district ESL classes. Immigrant students surveyed for this study had not lived in Canada long enough to forget events that took place in their home country or to completely assimilate into the Canadian culture as they had been in Canada for a maximum of four years.

## Data Collection

Every female grade nine physical education student that identified herself to me or her physical education teacher, as having lived in Canada for four years or less, was asked to fill out a questionnaire. From all grade nine physical education classes at these three schools, only two students from Eric Hamber School declined participation in the survey.

At each school, I pulled immigrant subjects from one physical education class at a time to administer the survey. I worked with small groups of three to ten students at once so was able to give them individual attention. I spent approximately five hours at Eric Hamber, seven hours at Killarney and nine hours at Templeton. Although Templeton had fewer subjects, many of them were literacy (ESL students with less than two years of formal education) or level one ESL students who required more time to complete the questionnaire. All data were collected during the month of April, 1995. This allowed students to experience almost a full school year of physical education at their grade level before completing the questionnaire.

I spent approximately fifteen minutes teaching each group of students difficult vocabulary words and guiding them through complex questions before they proceeded to fill out the questionnaire on their own. I clarified that the survey covered two topics: physical education class taken at school and physical activity undertaken during the students' free time. Questions $16,17,18$, and 19 on the questionnaire were explained in detail. I paired students with low proficiencies in English with competent student
interpreters and went through every question with them. When each student had completed the questionnaire, I checked for understanding and made sure all questions were answered. This process helped to ensure that my questionnaire provided as meaningful measures as possible.

## Data Analysis

Data obtained from the questionnaires were used to describe immigrant females from varying cultural backgrounds who were enrolled in grade nine physical education classes and to establish whether relationships existed between selected variables. Information about subjects' feelings toward physical education class and their participation in physical activity outside of physical education class was obtained. Relationships between this information and cultural background, years spent in Canada, ESL level, religion and mark in physical education class were then examined. Data on barriers to participation in physical activity, support for participation in physical activity, and attitudes toward coeducational physical education were also discussed.

The questionnaire contained multiple choice and Likert scale items. Some multiple choice questions were measured by ordinal scales (time spent on physical activity, feelings toward physical education) while others contained categorical data. Examples of questions that provided categorical data were cultural group, language most often spoken at home, religion, and reasons for not participating in physical activities. Likert scales were used to measure feelings of students toward different aspects of physical education and physical activity. These data were treated as interval data. Mean scores were obtained to determine the most important reasons immigrant girls had for participating in physical activities.

All data were analyzed using the Statistical Package for the Social Sciences (SPSS). Frequency distributions were calculated for each question; mean scores were determined and one-way analysis of variance (ANOVA) was used to analyze which
relationships between variables were significant. A probability value of less then .05 indicated a significant relationship.

## Part Two - Qualitative Research

## Purpose

The second part of my research examined the language female ESL students generated when discussing their experiences and feelings about physical education and physical activity. The purpose of this part of the research was to increase my understanding of how ESL students use language to express their attitudes, opinions and feelings and to identify the main issues these ESL female immigrant students saw as being barriers to their success in mainstream physical education classes. Part one and two together measure female immigrant students' perceptions of physical education and participation in physical activity, as well as how comprehensively ESL students use language to express their opinions on these topics. This information will provide physical education and ESL teachers with an understanding of how to help female immigrant students integrate more successfully into mainstream physical education classes.

## Subjects

The second part of my research was qualitative and exploratory. Subjects included 17 female students of varying backgrounds enrolled in both physical education classes and ESL classes at Killarney. These students ranged from 14 to 17 years of age, and were enrolled in grade 8 to grade 11 physical education classes and level two or three ESL classes. The countries of origin of these students include Hong Kong (9), Taiwan (4), Korea (2), India (1) and Afghanistan (1). At the time of data collection, these students had resided in Canada for a period of three months to almost three years. All students, with the exception of the girl from Afghanistan who was a refugee, were landed immigrants. All students were literate in at least one native language. Though
some of these students knew each other, the entire group had never worked together as a class before taking part in this research.

Seventeen female students were selected for this part of the study from the ESL classes at Killarney Secondary School. Subjects met the following requirements. First, they were enrolled in the ESL program at Killarney and had a block H ESL class. Second, they were enrolled in a physical education class. Third, they had been enrolled in their classes at Killarney for at least three months to ensure they had some experiences in physical education to discuss. Fourth, they had been in Canada for less than three years so as to ensure some memory of physical education class in their native country. Fifth, they willingly volunteered on their own and had their parents' consent to take part in this research. Sixth, their block H class teacher allowed them to miss two of his/her classes in order to take part in this research.

The subjects were pulled out of the five different ESL classes that operated during block H . Block H was the time period chosen because data collection was easiest for the researcher in this block. The 17 students were excused from two consecutive block H classes in the first week of June 1995 and met as a group in an empty classroom to participate in this research project.

## Data Collection

Students were led through two hours of language generating activities set up to encourage them to express their attitudes, opinions and feelings about physical education class. The researcher tape recorded spoken language and collected written materials produced while students interacted with each other in the classroom setting. The written and oral language generated showed a range of abilities ESL students had in expressing their attitudes on physical education. The language produced was described and analyzed to develop an understanding of the experiences of this sample. Specific strategies and activities used during the two hour periods included the following:

1. Team Word-Webbing (Spencer Kagan, 1990, p. 12:13).

Students were divided into four groups of mixed language abilities. They were taught how to team word-web and shown examples of word-webs. They then proceeded to word-web on large poster paper using the two concepts of physical education and physical activity. They wrote down all their ideas about these topics, making connections where they could. An example of the results obtained from one group is given in Appendix E1. The purpose of this activity was to encourage students to freely access all information they knew about these topics.
2. Round Table (Spencer Kagan, 1990, p. 11:5).

The same four groups of students formed for activity one were asked to answer the following questions which were typed on a piece of paper.
a) What do you like about physical education class in Canada? (Consider class organization, teaching methods, evaluation, activities, facilities, equipment, atmosphere and student behavior.)
b) What do you dislike about physical education class in Canada? (Consider class organization, teaching methods, evaluation, activities, facilities, equipment, atmosphere and student behavior.)

Each student wrote one answer to each question before passing the paper along to the person on her left. The paper was passed along until students ran out of ideas to contribute. Results obtained from this activity are presented in Appendix E2.
3. Discussion and disagreement (H \& S. Black, 1990, p. 108).

Round Table (Spencer Kagan, 1990, p. 11:5).
For this activity, students were divided into four groups of similar backgrounds. Two groups came to Canada from Hong Kong, one from Taiwan and the fourth was made up of the remaining students, two from Korea and one each from India
and Afghanistan. Groups of students, together, discussed and filled in two charts answering the following questions.
a) Discuss and record how physical education classes at Killarney are similar to physical education classes you took in the country you lived before moving to Vancouver. (Consider time, number of students in class, importance, activities, expectations and teaching styles.)
b) Discuss and record how physical education classes at Killarney are different from physical education classes you took in the country you lived before moving to Vancouver. (Consider time, number of students in class, importance, activities, expectations and teaching styles.)

Both written and oral language students produced while working on this activity was recorded. Results are presented in Appendix E3.
4. Think-Pair-Share (Spencer Kagan, 1990, p. 12:7).

Students individually thought of responses to the following questions, paired up and discussed responses and then shared them with the whole group.
a) What part of physical education class at Killarney do you like more than physical education class in the country you lived in before and why?
b) What part of physical education class at Killarney do you like less than physical education class in the country you lived in before? Why?

Students' final presentations to their groups were tape recorded. Results are in Appendix E4.
5. Each group of students isolated a problem they have had in physical education class. Students were guided through a problem solving method where they identified possible solutions and determined advantages and disadvantages for each. This process helped them to determine how to deal with their problems. Both written and oral language for this activity was recorded and is presented in Appendix E5.
6. Each individual student wrote their own answer to the following question on a piece of paper and then recorded their answer on tape. What could your physical education or ESL teachers do to help you and other ESL students feel comfortable in physical education class and learn more from physical education class?

Results from this activity are in Appendix E6.

## Data Analysis

As students were led through the activities described, all written data were collected and all group discussions were tape recorded. These data were analyzed to increase our understanding of how ESL students use language to express their attitudes, opinions and feelings toward physical education and to help determine the language capabilities and limitations of ESL students as they talk about their experiences and attitudes. As female immigrants expressed their feelings and opinions on physical education in English, they went through a process of critical thinking, in the form of evaluating the situation in which they saw themselves.

The data obtained were analyzed in two ways. First, the lexicogrammatical resources the subjects drew upon for expressing affect were analyzed.

Lexicogrammatical resources for expressing affect are needed to successfully appraise, analyze, judge, measure, show intensity, express modality or discuss ethics or truth. The model used to accomplish the analysis of expressing affect comes from research by Martin and Veel (1993). Martin and Veel identify five methods of expression as the main lexicogrammatical resources available in the English language for articulating affect. These five methods are divided into 'qualities' (describing participants, attributed to participants, manner of process) and 'processes' (affective mental and affective behavioural). Qualities describe how the students or other participants are feeling; processes state expressions of the students' own feelings or mental state and their behaviours. Descriptions and expressions of ESL students' attitudes and feelings about
physical education obtained in this research were analyzed by comparing them to the resources a typical teenage native speaker of English has available. This showed what language and communication strategies ESL students had available to successfully appraise, analyze, judge, measure, show intensity, or otherwise express affect.

Data were also analyzed a second way. The main issues about physical education, on which subjects made value judgments, were identified. Then it was determined which judgments were supported by good reasons and which were not. ...a moral judgment - or for that matter any kind of value judgment - must be supported by good reasons. If someone tells you that a certain action would be wrong, for example, you may ask why it would be wrong, and if there is no satisfactory answer, you may reject that advice as unfounded. In this way moral judgments are different from mere expressions of personal preference. If someone says "I like coffee," she does not need to have a reason - she may be making a statement about her personal taste and nothing more. But moral judgments require backing by reasons, and in the absence of reasons, they are merely arbitrary (Rachels, 1993, p. 38-39).

Data, then, were separated into statements of personal preference, with no adequate reasons for making institutional change, and value judgments that include reasons which might require the institution to consider change.

The main problematic issues brought up by subjects in this section of the research gave additional insights into conclusions obtained in part one of this study and also yielded valuable information regarding students' use of the language of opinion and judgment.

## CHAPTER FOUR: RESULTS AND FINDINGS

Two sets of results are presented in three different sections of this chapter. In the first section, quantitative data obtained from the analysis of responses to the questionnaires are presented. These data describe the sample, their attitudes toward physical education class, their participation rates in physical activities outside of physical education class and their achievement in physical education class. In the second section, the quantitative data are discussed and findings are related to other relevant research studies introduced in chapter two. In the third section, qualitative data obtained from language activities is analyzed and discussed. When needed, references are made to other relevant research studies. A separate section is not used for this purpose as this research is largely exploratory.

## Part One - Quantitative Research

Description of Sample
The sample of 109 female immigrant grade nine physical education students from three secondary schools in Vancouver had the following characteristics. Sixtynine ( $63 \%$ ) of the sample were 14 years old, $37(34 \%)$ were 15 years old and $3(2.8 \%)$ were 16 years old. The countries they lived and went to school in before moving to Canada are listed in Table 1.

Table 1
Country of origin prior to Canadian immigration.

| Country | Frequency | Percentage |
| :--- | :---: | :---: |
| Hong Kong | 48 | 44.0 |
| Taiwan | 19 | 17.4 |
| Vietnam | 10 | 9.2 |
| China | 4 | 3.7 |
| El Salvador | 4 | 3.7 |
| Philippines | 4 | 3.7 |
| India | 3 | 2.8 |
| USA | 2 | 1.8 |
| Korea | 2 | 1.8 |
| Argentina | 1 | .9 |
| Austria | 1 | .9 |
| Bahrain | 1 | .9 |
| Iraq | 1 | .9 |
| Israel | 1 | .9 |
| Jamaica | 1 | .9 |
| Japan | 1 | .9 |
| Macao | 1 | .9 |
| Pakistan | 1 | .9 |
| Paraguay | 1 | .9 |
| Poland | 1 | .9 |
| Saudi Arabia | 1 | .9 |
| Ukraine | 1 | .9 |

As shown in Table 1, the subjects in this study came from 22 different countries.
They are a portion of the student population who immigrated to Canada over the past three years and entered public schools in Vancouver from over 100 different foreign countries (Oakridge, 1995). The majority of students (77\%), who enrolled in Vancouver schools after immigrating to Canada from 1991-1994, came from the 10 countries listed in Table 2 (Oakridge, 1995). When comparing Tables 1 and 2, the sample population of this study is similar to the total population of immigrant students, with the exception that a higher number of the sample came from Hong Kong.

Table 2
The top 10 countries of origin of all students entering ESL programs in Vancouver secondary schools (1991-1994).

| Country | Percentage |
| :--- | :---: |
|  |  |
| Hong Kong | 30.8 |
| Taiwan | 14.5 |
| Vietnam | 8.8 |
| China | 7.4 |
| Philippines | 4.3 |
| Korea | 2.8 |
| India | 2.6 |
| El Salvador | 2.4 |
| Japan | 2.0 |
| USA | 1.6 |
|  |  |

Table 3 lists the cultural groups to which subjects felt they belonged. The large majority of students ( $67 \%$ ) identified themselves as belonging to the Chinese culture.

Table 3
Cultural groups with which the subjects identified themselves.

| Cultural group | Frequency | Percentage |
| :--- | :---: | :---: |
|  |  |  |
| Chinese | 73 | 67.0 |
| Vietnamese | 8 | 7.3 |
| Latin American | 4 | 3.7 |
| English | 3 | 2.8 |
| Filipino | 3 | 2.8 |
| Sikh | 3 | 2.8 |
| German | 1 | .9 |
| Hindu | 1 | .9 |
| Japanese | 1 | .9 |
| Korean | 1 | .9 |
| Ukrainian | 1 | .9 |
| Other | 10 | 9.2 |
|  | Total $=109$ | $100 \%$ |

Table 4 lists the languages that subjects most often used to communicate in their home settings. The data obtained shows that all but one of the sample spoke a native language at home. Four subjects listed English as their home language and three of these subjects came from English speaking countries. This is an indication that $99 \%$ of the sample had not yet lost the use of their primary language or replaced it with English.

Table 4
Languages most often spoken at home.

| Language | Frequency | Percentage |
| :--- | :---: | :---: |
|  |  |  |
| Cantonese | 50 | 45.9 |
| Mandarin | 22 | 20.2 |
| Vietnamese | 8 | 7.3 |
| Tagalog | 5 | 4.6 |
| Spanish | 4 | 3.7 |
| English | 4 | 3.7 |
| Hindi | 2 | 1.8 |
| Korean | 2 | 1.8 |
| Punjabi | 2 | 1.8 |
| German | 1 | .9 |
| Japanese | 1 | .9 |
| Ukrainian | 1 | .9 |
| Other | 7 | 6.4 |
|  |  |  |
|  | Total=109 | $100 \%$ |

In order to make comparisons among diverse cultural groups, subjects (with the exception of Filipinos) were grouped according to the geographic area they lived in before immigrating to Canada. The largest and main group of 75 subjects came from Eastern Asia (Hong Kong, Taiwan, China, Korea, Japan and Macao). The second group of 14 subjects came from Southern Asia (Vietnam, India, Pakistan). The third group of 10 subjects came from South or Central America or the Philippines. The Philippines was included in this group because it is often referred to as a misplaced Latin American country. "Perhaps because of their long association with Spain, Filipinos are emotional
and passionate about life in a way that seems more Latin than Asian (Parkes, 1994, p. 477). The last group of 10 were from all the countries not included in the first three groups.

Unfortunately, the country groups formed do not have similar numbers of subjects in them. The majority of students enrolled in Vancouver public schools, who immigrated to Vancouver between 1987 and 1995, came from East Asian countries (Oakridge, 1995). As a result, the majority of the sample (69\%) are in the East Asian group and fewer than $15 \%$ are in each of the other country groups. This imbalance of numbers of subjects in each country group is a limitation of the study. Comparisons across cultural groups have low statistical conclusion validity because of the small sample sizes of three of the four groups. Conclusions, based on these groupings, are not as strong as they would be had the groups been more balanced.

This study measured the number of years of experience students from each country group had with physical education classes because it is important for teachers to know the extent of their students' background experiences in physical education. One hundred of the 109 students in the sample (92\%) had taken physical education classes before they moved to Canada. The nine students, who had never taken physical education class before immigrating to Canada, came from India (3), Vietnam (3), China (1), Iraq (1) and Paraguay (1).

Eighty-one $(81 \%)$ of the 100 students, who had taken physical education classes in their native country, started these classes in Kindergarten or grade one, twelve ( $11 \%$ ) started in grade three and seven (7\%) started after grade three. Those who started after grade three came from Vietnam (3), El Salvador (2), Taiwan (1) and India (1). The means for the grade that students from each group of countries started physical education classes are presented in Table 5. As a group, the South Asian group started taking physical education classes at a mean grade four level while the East Asian and Other groups started at a mean grade between Kindergarten and grade one and the

Hispanics between grade one and two. The results of this analysis indicate that the South Asian group first enrolled in physical education classes at a much higher grade than the other three groups.

Table 5
Means for the grade students from each country group first enrolled in a physical education class.

| Group of Countries | n | Grade | sd |
| :--- | ---: | :---: | ---: |
| East Asia | 73 | 1.79 | 1.42 |
| South Asia | 8 | 5.00 | 1.85 |
| Hispanic | 9 | 2.56 | 1.74 |
| Other | 9 | 1.44 | .53 |
| Overall | 99 | 2.09 | 1.67 |

Note. Scale: $1=$ kindergarten, $2=$ grade $1,3=$ grade $2,4=$ grade $3,5=$ grade $4,6=$ grade 5 , $7=$ grade 6.

The means and standard deviations for the number of years students from each group of countries spent taking physical education classes are presented in Table 6. The mean number of years of physical education that students had taken before moving to Canada was 6.82 years. The East Asian group spent the most years (7.32) taking physical education classes before moving to Canada and the South Asian group spent the least years (3.25). A one-way analysis of variance (ANOVA), performed to compare the means in Table 6, revealed a statistically significant effect $[F(3,96)=8.52$, $\mathrm{p}=.00]$. Additional post hoc comparisons, using the least significant difference (LSD) method, revealed a statistically significant effect for all groups when compared to the South Asian group. As a group, the South Asian group spent significantly fewer years taking physical education classes than did the other three groups. The South Asians also had less variability in scores with a standard deviation of 1.58 compared to that of
2.23 for the East Asians and 3.02 for the Hispanics. This adds confidence to these findings.

Table 6
The mean number of years of physical education class taken before subjects moved to Canada.

| Group of Countries | n | Years | sd |
| :--- | ---: | :--- | :--- |
| East Asia | 74 | 7.32 | 2.23 |
| South Asia | 8 | 3.25 | 1.58 |
| Hispanic | 9 | 6.11 | 3.02 |
| Other | 9 | 6.56 | 1.51 |
| Overall | 100 | 6.82 | 2.46 |

The group mean number of classes of physical education taken by all subjects in a one week period during school hours was 2.70. The mean length of each class was 56.55 minutes. The mean time spent in physical education class in a one week period during school hours was 2.51 hours. Table 7 lists the mean hours subjects from each group of countries spent on physical education in school in a one week period in their native countries. A one-way analysis of variance (ANOVA) was performed that revealed no statistically significant differences between groups $[\mathrm{F}(3,96)=2.33, \mathrm{p}=.08]$. It is noteworthy that the median score for this data is 2.25 hours and the mode or most frequently occurring score is 1.5 hours. More than half of the students spent less than 2.25 hours on physical education in one week. The amount of time spent on physical education for all the country groups, except the South Asian group, falls in an average range for students in elementary school in Vancouver, who would normally spend between two and three hours taking physical education classes.

## Table 7

Average number of hours spent weekly in physical education class.

| Group of Countries | n | Hours | sd |
| :--- | :---: | :---: | :---: |
| East Asia | 74 | 2.43 | 1.29 |
| South Asia | 8 | 1.81 | .44 |
| Hispanic | 9 | 3.33 | 2.20 |
| Other | 9 | 2.97 | 1.06 |
| Overall | 100 | 2.51 | 1.36 |

The mean number of students in a physical education class for the entire sample was 38 . The means and standard deviations for the mean number of students per class, broken down by country groups, are presented in Table 8. Asian countries had slightly more students in their physical education classes than other countries in the world but a one-way analysis of variance (ANOVA) revealed no statistically significant differences between groups $[\mathrm{F}(3,95)=1.67, \mathrm{p}=.18]$. It is noteworthy that the class sizes in all groups but the Other group, were larger than classes in Vancouver, which generally enroll a maximum of 30 students.

Table 8
Average number of students in each physical education class.

| Group of Countries | n | Number | sd |
| :--- | :--- | :---: | ---: |
| East Asia | 73 | 39 | 8.59 |
| South Asia | 8 | 38 | 5.35 |
| Hispanic | 9 | 37 | 12.75 |
| Other | 9 | 33 | 8.33 |
| Overall | 99 | 38 | 8.88 |

Responses to questions about student gender composition of classes, both in native countries and in Vancouver, are displayed in Table 9. Forty-nine percent of the students surveyed had taken only coeducational physical education classes in their native countries; $32 \%$ had participated in only same sex physical education classes and $19 \%$ had participated in both. Almost all of the students surveyed were in elementary school when taking these physical education classes. These data suggest that many elementary physical education classes in foreign countries are coeducational.

At the time the questionnaire was given, $70 \%$ of the students were enrolled in a girls only physical education class, $7 \%$ were enrolled in a coeducational class and $23 \%$ were enrolled in a class where both same sex and coeducational activities were offered. When asked what their preference was, $72 \%$ chose same sex, $12 \%$ chose coeducational and $17 \%$ chose a mixture of both. These data suggest that the sexes are segregated in many grade nine secondary school physical education classes in Vancouver.

Responses to questions about whether subjects would presently take physical education class if they were given a choice, were as follows. Thirty-seven percent of the sample stated they would have taken physical education class that year if they were given a choice, $33 \%$ said they would not have, and $30 \%$ were unsure. When asked about the following year, $33 \%$ said they would, $40 \%$ said they would not and $27 \%$ were unsure.

## Table 9

Information on class gender composition and subjects' physical education choices.

| Variable | Frequency | Percentage |
| :--- | :--- | :--- |

Gender composition of P.E. classes in native country:
same sex
32
32
coeducational 49
49
both same sex and coed 19
19

Gender composition of P.E. classes in Vancouver:

| same sex | 76 | 70 |
| :--- | ---: | ---: |
| coeducational | 8 | 7 |
| both same sex and coed | 25 | 23 |

Preferred gender composition of P. classes in Vancouver:
same sex
77
71
coeducational 1412
both same sex and coed
18
17
Would elect to take P.E. this year:
$\begin{array}{lll}\text { yes } & 40 & 37\end{array}$
no 37
34
unsure 32
Would elect to take P.E. next year:
$\begin{array}{lll}\text { yes } & 36 & 33\end{array}$
no 44
40
unsure $29 \quad 27$

## Attitudes toward Physical Education Class

As shown in Table 10, the sample as a whole felt somewhat happy about taking physical education in their native country (3.72). When students immigrated to Canada, their happiness decreased (3.15). The subjects' feelings of happiness increased as they spent time in Canada. At the time the questionnaire was filled out, they rated their feelings at 3.55 . Over a period of time in Canada, the subjects felt more positive about taking physical education in Canada but not as positive as they felt about taking it in their native country.

Table 10
Subjects' affective reactions to physical education class.

| Group | In native country |  |  | In Canada |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | mean | sd | First arrived |  |  | Now |  |
|  |  |  |  | n | mean | sd | mean | sd |
| East Asia | 74 | 3.55 | 1.11 | 75 | 2.92 | 1.23 | 3.37 | 1.23 |
| South Asia | 8 | 4.50 | . 76 | 14 | 3.43 | 1.40 | 4.00 | . 96 |
| Hispanic | 9 | 3.89 | 1.45 | 10 | 3.60 | 1.43 | 4.10 | 1.28 |
| Other | 9 | 4.22 | . 67 | 10 | 4.00 | 1.23 | 3.70 | 1.16 |
| Overall | 100 | 3.72 | 1.12 | 109 | 3.15 | 1.31 | 3.55 | 1.22 |

Note. Scale: 1=very unhappy, 2=unhappy, 3=neither happy nor sad, 4=happy, 5=very happy.

The affective reactions subjects had to their physical education classes in the past prior to moving to Canada, when they first arrived to Canada and at the time they filled out the questionnaire, were used to calculate the mean for each group of countries. Group means and standard deviations are presented in Table 10. In all three cases, the East Asian group had the most unhappy feelings about taking physical education (3.55, $2.92,3.37$ ). In the past, the South Asians were happiest about taking physical education
(4.50); when they first arrived in Canada, the Other group was happiest (4.00); at the time the questionnaire was administered, the Hispanic group was happiest about taking physical education (4.10). A one-way analysis of variance (ANOVA) was performed to compare the means of all three cases presented in Table 10. Results show a statistically significant effect $[F(3,96)=2.63, p=.05],[F(3,105)=2.92, p=.03]$ for the first and second cases, but no significant effect for the third case, $[\mathrm{F}(3,105)=1.93, \mathrm{p}=.13]$. Additional post hoc comparisons, using the LSD method in the first case, revealed the South Asian group to be significantly happier than the East Asian group and in the second case, the Other group to be significantly happier than the East Asian group ( $\mathrm{p}<.05$ ). These results suggest that the East Asian students, in particular, were experiencing barriers to positive involvement in physical education class.

When subjects were asked to rate other girls' affective reactions to physical education class in the past, when they were in their native country, all groups felt they were happier than other girls when they were taking part in physical education. For all country groups, subjects' feelings toward physical education class in their native country (Table 10) were all more positive than feelings subjects thought other girls had toward physical education (Table 11). This same sample stated that when they lived in Vancouver and filled out this questionnaire, other girls in their school felt about the same as they did about taking physical education. Table 10 shows a mean of 3.55 while Table 11 shows a mean of 3.50. Differences in specific country groups (Table 11) show that the East Asian group felt less positive than other girls in Vancouver about physical education ( 3.37 compared to 3.44 ) while South Asian (4.00 compared to 3.64), Hispanic (4.10 compared to 3.6) and Other groups (3.70 compared to 3.60) felt happier in physical education than other girls. A one-way ANOVA was performed to compare the means in the two cases presented in Table 11. Results show no statistically significant differences between groups, $[\mathrm{F}(3,96)=2.11, \mathrm{p}=.10]$ for the first case and $[\mathrm{F}(3,105)=.22, \mathrm{p}=.88]$ for the second case.

Table 11
Subjects' perceptions of other girls' affective reactions to physical education class.

|  | In native country |  |  | In Canada now |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Group | n | mean | sd | n | mean | sd |
|  |  |  |  |  |  |  |
| East Asia | 74 | 3.27 | 1.13 | 75 | 3.44 | 1.07 |
| South Asia | 8 | 3.75 | 1.04 | 14 | 3.64 | 1.01 |
| Hispanic | 9 | 3.78 | 1.30 | 10 | 3.60 | 1.35 |
| Other | 9 | 4.11 | .93 | 10 | 3.60 | .84 |
| Overall | 100 | 3.43 | 1.14 | 109 | 3.50 | 1.06 |

Note. Scale: 1=very unhappy, 2=unhappy, 3=neither happy nor sad, 4=happy, 5=very happy.

Two conclusions can be drawn from this data. First, the girls who took part in this study likely have a better attitude toward physical education than other girls in their native country because they rated themselves (3.72) happier with physical education than other girls (3.43). Second, when comparing themselves to other girls in their native countries and Vancouver, immigrant girls felt less positive about taking physical education in Vancouver (3.50) than in their native countries (3.72).

Overall, subjects liked physical education class about the same in Canada as in their native countries (2.94). They rated physical education as less important than their other classes (3.56). Of the four country groups, the East Asian group rated physical education class as the least important when compared to other classes. The means and standard deviations for this information are given for each country group in Table 12.

Table 12
Importance subjects gave to physical education class in comparison to:

|  | P.E. in native country |  | other classes taken |  |  |  |
| :--- | ---: | ---: | ---: | :--- | ---: | ---: |
| Group | n | mean | sd | n | mean | sd |
|  |  |  |  |  |  |  |
| East Asia | 74 | 2.92 | 1.29 | 75 | 3.67 | .93 |
| South Asia | 8 | 3.25 | 1.16 | 14 | 3.29 | 1.27 |
| Hispanic | 9 | 2.33 | 1.50 | 10 | 3.20 | .92 |
| Other | 9 | 3.44 | 1.01 | 10 | 3.50 | .53 |
| Overall | 100 | 2.94 | 1.29 | 109 | 3.56 | .96 |

Note. Scale: $1=$ much more important, $2=$ more important, $3=$ the same, $4=$ less important, $5=$ much less important.

The affective reactions of subjects to their physical education classes when they first arrived in Canada and at the time of filling out the questionnaire, were used to calculate the means for beginner to intermediate ESL students, advanced ESL students and students who were in regular school classes. This calculation was also performed for the number of full years subjects lived in Canada. Group means and standard deviations are presented in Table 13 and 14. A one-way analysis of variance (ANOVA) was performed to compare the means in all cases. Neither group showed any significant differences; $[\mathrm{F}(2,105)=.40, \mathrm{p}=.67]$ and $[\mathrm{F}(2,105)=.56, \mathrm{p}=.57]$ for the means in Table 13 and $[F(4,104)=2.02, \mathrm{p}=.10]$ and $[\mathrm{F}(4,104)=1.63, \mathrm{p}=.17]$ for the means in Table 14. Feelings about taking physical education did not change significantly either as students moved through the ESL levels to regular classes or as they lived in Canada for a longer period of time.

Table 13
Affective reactions of subjects in each ESL level to physical education class in Canada.

|  |  | First arrived |  | Now |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Group | n | mean | sd | mean | sd |
|  |  |  |  |  |  |
| Beginner to intermediate ESL | 32 | 2.97 | 1.36 | 3.63 | 1.21 |
| Advanced ESL | 35 | 3.20 | 1.30 | 3.69 | 1.39 |
| Regular | 42 | 3.24 | 1.30 | 3.38 | 1.08 |
| Overall | 109 | 3.15 | 1.31 | 3.55 | 1.22 |

Note. Scale: 1=very unhappy, 2=unhappy, 3=neither happy nor sad, 4=happy, 5=very happy.

Table 14
Affective reactions of subjects to physical education class depending on the number of full years they have lived in Canada.

|  |  | First arrived |  | Now |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Group | n | mean | sd | mean | sd |
|  |  |  |  |  |  |
| less than 1 year | 24 | 3.33 | 1.37 | 3.29 | 1.33 |
| 1 year | 22 | 2.82 | 1.33 | 3.77 | 1.07 |
| 2 years | 31 | 3.26 | 1.26 | 3.26 | 1.26 |
| 3 years | 21 | 3.43 | 1.21 | 3.76 | 1.22 |
| 4 years | 11 | 3.82 | 1.08 | 4.09 | .94 |
| Overall |  |  |  |  |  |

Note. Scale: 1=very unhappy, 2=unhappy, 3=neither happy nor sad, 4=happy, 5=very happy.

The affective reactions of subjects to their physical education classes in the past in their native country, when they first arrived to Canada and at the time of filling out the questionnaire, were also used to calculate the mean feelings for each religious group. Group means and standard deviations are presented in Table 15.

## Table 15

Affective reactions of subjects from each religious group to physical education class.

| Group | In native country |  |  | In Canada |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | mean | sd | First arrived |  | Now |  |  |
|  |  |  |  | n | mean | sd | mean | sd |
| Christian | 43 | 3.93 | 1.03 | 43 | 3.09 | 1.41 | 3.60 | 1.20 |
| Buddhist | 12 | 4.42 | . 79 | 16 | 3.50 | 1.03 | 4.13 | . 96 |
| Other Religions | 4 | 3.50 | . 58 | 7 | 2.86 | 1.86 | 3.29 | 1.11 |
| None | 41 | 3.32 | 1.19 | 43 | 3.12 | 1.22 | 3.33 | 1.30 |
| Overall | 100 | 3.72 | 1.12 | 109 | 3.15 | 1.31 | 3.55 | 1.22 |

A one-way analysis of variance (ANOVA) was performed to compare the means in all three cases. Results showed a significant difference in feelings toward physical education classes taken in the subjects' native countries among the four religious groups $[\mathrm{F}(3,96)=4.25, \mathrm{p}=.00]$, but no significant difference when subjects first moved to Canada $[\mathrm{F}(3,105)=.53, \mathrm{p}=.67]$ or at the time of filling out the questionnaire $[\mathrm{F}(3,105)=1.85, \mathrm{p}=.14]$. Further post hoc comparisons, using the LSD method in the first case, revealed that the Buddhist and Christian students were significantly happier than the group with no religious affiliation ( $p<.05$ ). This information suggests that while there was a positive relation between having a religious belief and feeling positive about taking physical education class when subjects were in their native countries, once they moved to Canada, this relation became insignificant.

A $4 \times 4$ analysis of variance (two-way ANOVA), which took into account ethnicity and religion, yielded no significant attitude difference in the past due to ethnicity and no significant interaction between ethnicity and religion. However, there was a significant difference in attitude due to religion and an overall significance for ethnicity and religion combined $[\mathrm{F}(3,96)=2.72, \mathrm{p}=.00]$.

A $4 \times 4$ analysis of variance (two-way ANOVA), which took into account ethnicity and religion, yielded no significant attitude difference at the present time due to ethnicity or religion, or both combined and no significant interaction between ethnicity and religion.

## Participation in Physical Activities outside of Physical Education Class.

Subjects were asked a number of questions about their participation rates in physical activities outside of required physical education classes. Table 16 presents some general findings on this topic. Seventy-two percent of the sample felt that regular physical activity was important while $28 \%$ felt it was not important. Twenty-six percent of the sample had been members of a sport or exercise team or club at school or in the community, during the school year they filled out the questionnaire, while $74 \%$ had not. Twenty-seven percent rarely or never participated in physical activity long enough to work up a sweat, while $65 \%$ sometimes did and $8 \%$ often did.

Table 16
Subjects' participation rates in extracurricular physical activities.
Question $\quad$ Frequency $\quad$ Percentage

Felt participation in regular physical activity was important:
yes
79
72
no
30
28

Were members of a sport or exercise team or club at school or in the community:
yes
28
26
no
81
74

Participated in physical activity long enough to work up a sweat:

| often | 9 | 8 |
| :--- | ---: | ---: |
| sometimes | 71 | 65 |
| rarely or never | 29 | 27 |

Students were asked to estimate how many hours a week they spent on physical activity. The results are given in Table 17. Measuring time spent on physical activity is always a difficult measurement for researchers to make because of the complexity of defining the construct 'physical activity' accurately. It is important to note that this research included activities that require little effort (walking, fishing, bowling) and also those that put great stress on the circulatory and respiratory system (swimming, running) in its measure of physical activity. This could be considered a fairly liberal definition of physical activity, as some would argue that there are few health benefits from activities that require little effort.

Table 17
Time subjects spent on extracurricular physical activities in one week.

|  | In native country |  | In Canada |  |
| :--- | :---: | :---: | :---: | :---: |
| Time | Frequency | Percentage | Frequency | Percentage |
|  |  |  |  |  |
| none | 23 | 21 | 15 | 14 |
| less than 1 hour | 21 | 19 | 33 | 30 |
| 1-2 hours | 29 | 27 | 20 | 18 |
| 2-3 hours | 11 | 10 | 24 | 22 |
| 3-4 hours | 7 | 6 | 6 | 5 |
| 4-5 hours | 8 | 7 | 5 | 5 |
| 5-6 hours | 0 | 7 | 2 | 2 |
| more than 6 hours | 10 | 9 | 4 | 4 |

Results from this measurement showed that $21 \%$ of the sample participated in no physical activities while living in their native country and $14 \%$ participated in no activities while living in Canada. Forty percent of the sample in their native country and $44 \%$ in Canada participated in less than one hour of physical activity a week. Twenty-nine percent of the sample spent more than three hours a week on physical activity while in their native country while only $16 \%$ spent more than three hours a week on physical activity while living in Canada. This data suggests that some students who were totally inactive in sports or exercise in their native country became active in sports after moving to Canada. Many students who were very active in sports or exercise in their native country, on the other hand, did not continue to be as active after immigrating to Canada.

Table 18 shows that on average, students spent slightly more time on physical activity in their native country (3.29) than in Canada (3.15). In both cases, they spent just over 2 hours a week on physical activity.

Table 18
Time subjects from each country group spent on sports and exercise in their free time.

| Group | n | In native country |  | Now in Canada |  | Godin's Mean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | mean ${ }^{\text {a }}$ | sd | mean $^{\text {a }}$ | sd | mean ${ }^{\text {b }}$ | sd |
| East Asia | 75 | 3.37 | 1.88 | 2.98 | 1.35 | 29.08 | 16.27 |
| South Asia | 14 | 1.71 | 1.20 | 2.64 | 1.74 | 26.21 | 14.32 |
| Hispanic | 10 | 3.60 | 2.46 | 3.60 | 2.63 | 44.10 | 29.44 |
| Other | 10 | 4.60 | 2.91 | 4.60 | 2.37 | 59.60 | 33.78 |
| Total | 109 | 3.29 | 2.07 | 3.15 | 1.71 | 32.89 | 21.61 |

Note. ${ }^{\text {a }}$ Scale: $1=$ none, $2=$ less than 1 hour, $3=1-2$ hours, $4=2-3$ hours, $5=3-4$ hours, $6=4-5$ hours, $7=5-6$ hours, $8=$ more than 6 hours
${ }^{\mathrm{b}}$ This measurement of participation in exercise was introduced by Godin and Shephard (1985) as a simple alternative to other more complex methods of assessing leisure time physical activity. A total weekly activity score is derived as the summed product of the weekly frequency of participation at each of three intensities of exercise. The calculation made is $9{ }^{*}$ Strenuous $+5^{*}$ Moderate $+3^{*}$ Light $=$ arbitrary units.

The time subjects spent on physical activity in their native country and at the time of filling out the questionnaire was used to calculate the mean times for each country group. Group means and standard deviations are presented in Table 18. In both cases, the Other group spent the most time on physical activity (4.60, 4.60), followed by the Hispanic group $(3.60,3.60)$, then the East Asian group $(3.37,2.98)$ and lastly the South Asian group $(1.71,2.64)$. Even though the South Asian group spent the least amount of time on physical activity, they showed the greatest increase in the time they spent participating in physical activity after they moved to Canada.

A second measurement of participation in exercise developed by Godin and Shephard was used in this study. The results of this analysis are similar to those found for time spent on physical activity. The South Asian students spent the least time on
physical activity (26.21), followed by East Asian students (29.08), Hispanics (44.10) and Others (59.60).

A one-way analysis of variance (ANOVA), performed to compare the means from all three questions presented in Table 18 revealed a significant effect for participation in the subjects' native countries $[\mathrm{F}(3,105)=4.55, \mathrm{p}=.00]$ and in Canada $[F(3,105)=3.49, p=.05]$. Further post hoc comparisons using the LSD method in the first case revealed that the South Asian group spent significantly less of their free time on sport and exercise than the other three groups ( $\mathrm{p}<.05$ ) and in the second case the Other group spent significantly more of their free time on sport and exercise than both Asian groups ( $\mathrm{p}<.05$ ). A one-way analysis of variance (ANOVA) performed to compare the means in the third case also revealed a significant effect for participation at the time of completing the questionnaire $[\mathrm{F}(3,105)=8.77, \mathrm{p}=.00]$. Further post hoc comparisons using the LSD method indicated that the Hispanic and Other group spent significantly more time on physical activity than both Asian groups (p<.05).

The time each subject spent on physical activity at the time of filling out the questionnaire was used to calculate the mean times for beginner to intermediate ESL students, advanced ESL students and students who were in regular school classes. Group means and standard deviations are presented in Table 19. A one-way analysis of variance (ANOVA) was performed to compare the means in both cases shown in Table 19. The results of both analyses show a significant difference in participation rates for case one $[\mathrm{F}(2,105)=3.98, \mathrm{p}=.02]$ and for case two $[\mathrm{F}(2,105)=6.83, \mathrm{p}=.00]$. Further post hoc comparisons using the LSD method indicated the students who were in the regular schooling stream, spent significantly more time on physical activity than those who were enrolled in beginner to advanced classes in district ESL programs ( $\mathrm{p}<.05$ ). The results in Table 19 clearly show that participation rates in physical activity, performed in students' free time, increase as English language proficiency improves and as students become accepted as mainstream members of the school. This
may indicate that ESL students need more encouragement and support to spend more time participating in physical activities.

Table 19
Time subjects in each ESL level spent on sports and exercise in their free time.

| Group | n | mean | sd | mean | sd |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| Beginner to intermediate ESL | 32 | 2.69 | 1.55 | 24.59 | 13.07 |
| Advanced ESL | 35 | 2.89 | 1.32 | 29.97 | 16.89 |
| Regular | 42 | 3.71 | 1.97 | 41.64 | 26.92 |
| Overall | 109 | 3.15 | 1.71 | 32.89 | 21.69 |

Note. Refer to Table 18 for an explanation of scale used.

The time each subject spent on physical activity, at the time of filling out the questionnaire, was used to calculate the mean times for the number of full years they had lived in Canada. Group means and standard deviations are presented in Table 20. There is a general trend for higher participation rates the longer students remain in Canada. This sample, however, showed a drop in participation rates at the 2 to 3 year stage.

Table 20

Time subjects spent on sports and exercise by the number of full years they have lived in Canada.

| Group | n | mean | sd | mean | sd |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| less than 1 year | 24 | 2.62 | 1.17 | 29.50 | 14.54 |
| 1 year | 22 | 3.23 | 1.38 | 30.91 | 17.24 |
| 2 years | 31 | 2.58 | 1.36 | 22.39 | 13.84 |
| 3 years | 21 | 3.57 | 1.86 | 42.76 | 22.57 |
| 4 years | 11 | 4.91 | 2.55 | 55.00 | 34.89 |
| Overall | 109 | 3.15 | 1.71 | 32.89 | 21.69 |

Note. Refer to Table 18 for an explanation of scale used.

A one-way analysis of variance (ANOVA) was performed to compare the means for time spent on physical activity and the means for Godin and Shephard's measure of participation in Table 20. The results of both analyses show a strongly significant difference in participation rates $[\mathrm{F}(4,104)=5.43, \mathrm{p}=.00]$ and $[\mathrm{F}(4,104) 7.43$, $\mathrm{p}=.00$ ] Further post hoc comparisons using the LSD method showed a significant difference in participation times between students who had lived in Canada for more than four years, compared to those who had lived in Canada for less than four years and for those who had lived in Canada for 3 to 4 years, compared to those who had lived in Canada for less than 3 years ( $\mathrm{p}<.05$ ). A one-way analysis of variance (ANOVA) was also performed to compare the means from Godin and Shephard's measure in Table 20. The results show a significant difference in participation rates between students who have lived in Canada for more than three years, compared to those who have lived in Canada for less than three years ( $\mathrm{p}<.05$ ).

The times subjects spent on physical activity in their native country and at the time of completing the questionnaire, were used to calculate the mean times for each religious group. Group means and standard deviations are presented in Table 21. In both cases, the Christian group spent the most time on physical activity. Only the Buddhist group increased the time they spent participating in physical activity after they moved to Canada.

A one-way analysis of variance (ANOVA) performed to compare the means in all three questions presented in Table 21 shows a significant difference in participation rates for participation times in the past $[\mathrm{F}(3,105)=3.44, \mathrm{p}=.02]$ but no significant differences for participation times at the time the questionnaire was completed $[\mathrm{F}(3,105)=.53, \mathrm{p}=.67]$ and not significant differences for Godin and Shephard's measurement of participation, $[\mathrm{F}(3,105)=1.85, \mathrm{p}=.14]$. Further post hoc comparisons using the LSD method indicated that the Christian and no religion group spent
significantly more time on physical activity in the past than did the Buddhist group ( $\mathrm{p}<.05$ ).

Table 21
Time subjects from each religious group spent on sports and exercise in their free time.

|  |  | In native country |  | Now in Canada |  | Godin's Mean |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Group | n | mean | sd | mean | sd | mean $^{\mathrm{a}}$ | sd |
|  | 43 | 3.74 | 2.25 | 3.33 | 1.94 | 37.33 | 25.61 |
| Christian | 16 | 1.88 | 1.15 | 3.17 | 1.11 | 28.25 | 15.28 |
| Buddhist | 7 | 3.14 | 2.41 | 2.57 | 1.72 | 30.86 | 24.10 |
| Other Religions | 43 | 3.40 | 1.93 | 3.14 | 1.51 | 30.51 | 18.54 |
| None |  |  |  |  |  |  |  |
| Total | 109 | 3.29 | 2.07 | 3.15 | 1.71 | 32.89 | 21.61 |

${ }^{\text {a Refer to Table }} 18$ for an explanation of how this measure is attained.

Important factors that encourage or discourage new immigrant female students from participating in physical activities in their free time

Forty percent of students stated that there were physical activities that they participated in their native country, but have not participated in since moving to Canada. The reasons they gave for dropping these activities when they immigrated to Canada are shown in Table 22. The top 5 reasons given were that subjects had no one with whom to participate in physical activities, had no time or did not wish to take the time, rated themselves as poor at sports, did not have friends who wanted to participate with them, and had English language difficulties. These are areas that teachers might want to target to assist immigrant girls in becoming more physically active.

Table 22
Reasons given for dropping physical activities after moving to Canada.

| Reason | Frequency | Percentage |
| :--- | :--- | :---: |
|  |  |  |
| No one to join or play with | 19 | 17 |
| No time | 17 | 16 |
| I am not good at sports or physical activities | 14 | 13 |
| Friends don't want to | 13 | 12 |
| English language problem | 13 | 12 |
| Sports I like are not offered | 12 | 11 |
| Loss of interest in activities | 11 | 10 |
| Facilities are too far away | 8 | 7 |
| People treat me badly because I'm new to Canada | 7 | 6 |
| No equipment | 6 | 6 |
| No money | 4 | 4 |
| Family doesn't allow it | 3 | 3 |
| Poor health/injury | 3 | 3 |
| No energy | 3 | 3 |
| Poor facilities | 0 | 0 |
|  |  |  |

Total responses $=133$
Fifty-two percent of students stated that they would have liked to participate in more physical activities or spend more time on physical activity than they did at the time of completing the questionnaire. The reasons they gave for not doing so are listed in Table 23. The top 5 reasons given were that subjects had no time or did not wish to take the time to participate in sports or exercise, had no one with whom to participate, rated themselves as poor at sports, did not have friends who wanted to participate with them, and did not have the necessary equipment to participate.

Table 23
Reasons given for not participating in more physical activities than at the present time.

| Reason | Frequency | Percentage |
| :--- | :---: | :---: |
|  |  |  |
| No time | 29 | 27 |
| No one to join or play with | 21 | 19 |
| I am not good at sports or physical activities | 15 | 14 |
| Friends don't want to | 14 | 13 |
| No equipment | 10 | 9 |
| Sports I like aren't offered | 8 | 7 |
| Facilities are too far away | 8 | 7 |
| English language problem | 5 | 5 |
| Family doesn't allow it | 5 | 5 |
| Poor facilities | 4 | 4 |
| Poor health | 4 | 4 |
| People treat me badly because I'm new to Canada | 4 | 4 |
| No energy | 4 | 4 |
| No money | 3 | 3 |

Total responses $=134$

Students identified the people listed in Table 24 as wanting them to participate in physical activities outside of physical education class in Canada and those listed in Table 25 as not wanting them to participate in physical activities outside of physical education class in Canada. These people could act as supporters or barriers of student participation in physical activities. Parents were identified as the greatest supporters ( $62 \%$ ) and barriers ( $9 \%$ ) followed by friends and siblings. Teachers were seen as supporters by $25 \%$ of students and barriers by no students. The majority of students $(80 \%)$ identified no human barriers to their participation in physical activity while only $13 \%$ of students identified no human support for their participation. These results indicate that this sample had strong support and faced little opposition to participating in physical activities. It also suggests that teachers might benefit greatly from parent
involvement if they wish to increase immigrant student participation in sports and exercise.

Table 24
Human support for participation in physical activities.

| Supporter | Frequency | Percentage |
| :--- | :---: | :---: |
|  |  |  |
| Parent | 68 | $62 \%$ |
| Friend | 34 | $31 \%$ |
| Brother or sister | 29 | $27 \%$ |
| Teacher | 28 | $25 \%$ |
| No one | 14 | $13 \%$ |
| Relative | 13 | $12 \%$ |
| Coach | 9 | $8 \%$ |
| Religious leader | 2 | $2 \%$ |
|  |  |  |

Table 25
Human barriers to participation in physical activities.

| Barrier | Frequency | Percentage |
| :--- | :---: | :---: |
|  |  |  |
| No one | 89 | $80 \%$ |
| Parent | 10 | $9 \%$ |
| Friend | 5 | $5 \%$ |
| Brother or sister | 4 | $4 \%$ |
| Relative | 4 | $4 \%$ |
| Religious leader | 1 | $1 \%$ |
| Teacher or coach | 0 | $0 \%$ |
|  |  |  |

Students were asked to rate reasons for participating in physical activities as very important (1), important (2), not important (3) and not important at all (4). The group means and standard deviations for the entire sample are given in Table 26.

Table 26

Reasons subjects gave for participating in physical activities in their free time.

| Reason | Mean | sd | n |
| :--- | :---: | :---: | :---: |
| To make my health better. |  |  |  |
| To learn new things. | 1.50 | .73 | 107 |
| To be with my friends. | 1.76 | .77 | 106 |
| To make my body look better. | 1.83 | .73 | 108 |
| To meet new people. | 2.09 | .76 | 108 |
| To relax or reduce stress or problems. | 2.15 | .73 | 107 |
| To train and practice long and hard. | 2.47 | .80 | 106 |
| To make beautiful, graceful movements. | 2.54 | .89 | 106 |
| Others want me to participate. | 2.68 | .79 | 107 |
| For excitement and danger. | 3.08 | .78 | 106 |

Note. Scale: $1=$ very important, $2=$ important, $3=$ not important, $4=$ not important at all.

The benefits of physical activity subjects in this research identified as most important are: health, to learn new things, to be with friends, to make the body look better and to meet new people.

## Achievement in Physical Education Class.

Table 27 and 28 give the means and standard deviations for the mark each subject received according to their level of ESL and the number of years they have lived in Canada. Results show that both the proficiency of English and the number of years subjects have lived in Canada, had a positive relation to the mark they received in physical education class. As competency in English improved and number of years spent in Canada increased, the marks improved. A one-way analysis of variance (ANOVA) performed to compare the means in each table showed no significant difference for level of $\operatorname{ESL}[F(2,102)=1.58, \mathrm{p}=.21]$ but does show a significant difference for the number of years students have lived in Canada $[F(4,100)=2.42$, $\mathrm{p}=.05]$. The mean for subjects who had lived in Canada for four or more years was
much lower (1.82) than for those who had lived in Canada for less than four years
(2.14-2.52). Because a lower mean corresponds to a higher mark, these results suggest that female immigrant students, who have lived in Canada for four or more years, may receive higher marks in physical education than those who have lived in Canada for a shorter period of time.

Table 27
Marks subjects in each ESL level received in physical education on their last report card.

| Group | n | mean | sd |
| :--- | :--- | :--- | :--- |
| Beginner to intermediate ESL | 30 | 2.40 | .86 |
| Advanced ESL | 33 | 2.39 | .56 |
| Regular | 42 | 2.14 | .72 |
| Overall | 105 | 2.30 | .72 |

Note. Scale: $1=A, 2=B, 3=C, 4=D, 5=E$.
Table 28

Marks subjects who have lived in Canada for the following number of years received in physical education on the ir latest report card.

| Group | n | mean | sd |
| :--- | :---: | :--- | :--- |
|  |  |  |  |
| less than 1 year | 21 | 2.48 | .81 |
| 1 year | 21 | 2.14 | .57 |
| 2 years | 31 | 2.29 | .69 |
| 3 years | 21 | 2.52 | .68 |
| 4 years | 11 | 1.82 | .75 |
|  |  |  |  |
| Total | 105 | 2.30 | .72 |

Note. Scale: $1=\mathrm{A}, 2=\mathrm{B}, 3=\mathrm{C}, 4=\mathrm{D}, 5=\mathrm{E}$.
Table 29 and 30 give the means and standard deviations for affective reactions to physical education class and participation in physical activities in relation to the mark
each subject received. Table 29 shows that a positive reaction to physical education class is related to a good mark in physical education. A one-way analysis of variance (ANOVA) performed to compare the means shows a significant difference in affect among students with different marks $[\mathrm{F}(3,101)=6.23, \mathrm{p}=.00]$ Table 30 shows the relationship between participation rates and marks. For both measurements of participation reported, students with higher participation rates had higher marks and students with lower participation rates had lower marks. With this sample, students with an A in physical education had the highest participation rates. A one-way analysis of variance (ANOVA) performed to compare the means in both cases shown in Table 30, however, does not show a significant difference in participation rates among students with different marks $[\mathrm{F}(3.101)=1.22, \mathrm{p}=.30]$ and $[\mathrm{F}(3,101)=.73, \mathrm{p}=.53]$. This data indicates that attitude towards physical education is a stronger indicator of achievement in physical education than is participation in physical activities in the subjects' free time.

Table 29
Affective reactions of subjects who received the following marks on their last report card to physical education class.

| Mark | n | Mean | sd |
| :--- | ---: | :---: | :---: |
|  |  |  |  |
| A | 13 | 4.38 | .65 |
| B | 50 | 3.74 | 1.17 |
| C(C+,C,C-) | 41 | 3.15 | 1.20 |
| E | 1 | 1.00 | -- |
| no mark | 4 | 3.25 | 1.50 |
| Overall | 109 | 3.55 | 1.22 |

Note. Scale: 1=very unhappy, 2=unhappy, 3=neither happy nor sad, 4=happy, 5=very happy.

Table 30

Time, subjects who received the following marks on their last report card, spent on physical activities in one week.

| Mark | n | Mean | sd | Mean | sd |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| A | 13 | 3.85 | 2.51 | 41.23 | 33.49 |
| B | 50 | 3.22 | 1.47 | 32.56 | 18.30 |
| C(C+,C,C-) | 41 | 2.88 | 1.71 | 31.66 | 21.64 |
| E | 1 | 2.00 |  | 23.00 |  |
| no mark | 4 | 3.00 | 1.41 | 25.00 | 12.91 |
|  |  |  |  |  |  |
| Overall | 109 | 3.15 | 1.71 | 32.89 | 21.61 |

Note. Refer to Table 18 for an explanation of scale used.

Section one presented all the data obtained from the analysis of responses to the questionnaires. Section two discusses the results presented here and compares them with results from other research studies that deal with similar issues.

## Part One - Discussion of Findings

## Description of Sample

The sample of 109 female immigrant grade nine immigrant students who took part in this study came from 22 different countries. This study was designed to survey immigrant students who had not been away from their native country long enough to forget their experiences there. An indication that the sample was still connected with their native culture was that $99 \%$ of the sample used their first language, not English, in their home setting. Their backgrounds are similar to those of the total population of immigrant students who have entered Vancouver public schools from 1991-1994. The results of this study are generalized to the district's female grade nine immigrant population.

Eight percent of the sample had never taken physical education classes before moving to Canada and $18 \%$ of the sample enrolled in their first physical education class by grade three. It is important that physical education teachers know that many (in this case $26 \%$ ) female immigrant students come into their classes with limited background knowledge and experience in physical education. These students may need extra support to catch up to their classmates who have been enrolled in physical education classes since kindergarten. Immigrant students, who were enrolled in phyşical education classes in their native countries, experienced much larger class sizes than students in Canada so possibly did not get as much attention and direction as they would in Canada. Smaller classes give teachers the opportunity to provide greater support.

The subjects' feelings on same sex versus coeducational physical education produced interesting findings. The percentages of actual gender composition ( $70 \%$ same sex, $7 \%$ coed, $23 \%$ both) and preferred gender composition of physical education classes ( $71 \%$ same sex, $12 \%$ coed, $17 \%$ both) were very similar. This suggests that most of the immigrant females preferred the same gender composition of physical education class as they were experiencing at the time. This finding is supported in an
evaluation of coeducational physical education in Vancouver Secondary Schools (VSB, 1996). One of the main findings of this study was that "the majority of students in grades 8-10 (60\%) who were enrolled in same sex classes, preferred this grouping arrangement and $64 \%$ of junior students who were enrolled in coeducational classes preferred the coeducational arrangement" (VSB, 1996, p.74). More girls than boys, however, preferred same sex as opposed to coeducational groupings. "It is impossible to conclude from student responses that one grouping arrangement is preferable to another" (VSB, 1996, p.74).

The VSB study concludes that coeducational groupings are not sufficient for achieving gender equity and can in fact have detrimental effects on the participation of female students. Coeducational physical education is not the solution its advocators hoped it might be in improving the attitudes and participation rates of females in physical education. The study suggests that mandating coeducational physical education, as had been done in Vancouver schools, may not be beneficial to female students.

## Attitudes toward Physical Education and Physical Activity

Several measures of the students' feelings toward physical education and physical activity were taken. The female immigrant subjects displayed positive attitudes toward physical education, except when they first arrived in Canada. At that time, they felt neither happy nor sad about taking physical education and their attitudes toward physical education were less positive than when they were in their native countries. As they spent more time in Canada, they began to feel more positive about physical education, but not as positive as they did in their native country. These findings suggest that new immigrant students would benefit from extra support when they first arrive in Canada.

Results on the affective reactions of subjects from different religious groups to physical education showed a positive relationship between having a religious belief and
feeling positive about taking physical education class when subjects were in their native countries. This relationship, however, did not exist after subjects moved to Canada.

Results on subjects' feelings toward physical activity showed that $72 \%$ of the sample felt that regular physical activity is important while $28 \%$ felt it is not important. This finding is similar to the results of the Canada Fitness Survey (1982) where $78 \%$ of the subjects indicated regular physical activity is important.

## Participation in Physical Activity

Data measuring time spent on participation in physical activity suggests that some students, who were totally inactive in sports or exercise in their native country, became active in sports after moving to Canada. Twenty-one percent of the sample did not participate in physical activities while living in their native country and 14\% participated in no activities while living in Canada. Thirteen percent of students who were very active in sports or exercise in their native country, on the other hand, became much less active after immigrating to Canada. Perhaps with more support and encouragement and a greater familiarity with the way things are done in Canada, these students could increase the time they spend on physical activities to match their past levels.

When comparing the results of participation rates in this study with other surveys done throughout Canada and the USA, it is important to note that due to inconsistencies in measuring participation rates accurately, only gross generalizations can be made. While in Vancouver, $44 \%$ of my sample participated in no or very little physical activity, $40 \%$ participated in one to three hours a week and $16 \%$ spent more than 3 hours a week on physical activities. Twenty-seven percent never participated in physical activity long enough to work up a sweat, $65 \%$ sometimes did and $8 \%$ often worked up a sweat. This data suggests that 8 to $16 \%$ of the sample could be considered to be vigorously active. The Canada's Fitness Survey (Canada Fitness and Amateur Sport, 1982) showed that $90 \%$ of females between the ages of 10 and 15 participated in
some sport activities while $72 \%$ of females over 14 participated in sport activities. In my sample, $86 \%$ stated they participated in some activities. This number compares favourably to the Canada Fitness Survey results.

For a second comparison of participation rates, Shephard (1986, p.124) concluded that "both in Canada and the US, no more than $15-20 \%$ of the population is currently taking exercise at a level likely to have a cardiovascular training effect; a further $35-40 \%$ are taking some exercise fairly regularly, while the remaining 40-50\% are almost totally inactive". Eight to $16 \%$ of my sample stated they exercised at a level likely to have a cardiovascular training effect while $44 \%$ of my sample described themselves as being almost totally inactive. Overall, my sample conforms to the norms set for North America by Shephard, with the exception that fewer stated they participated in exercise at a level likely to have a cardiovascular training effect.

For a third comparison of participation rates, Carroll's study (1993) explored the relationship between ethnicity and participation in sport and concluded that overall, $29 \%$ of his female subjects, who ranged in age from 16 to 30 , took part in no physical activities at all. Carroll's sample of 100 females was similar in size to the sample in this study but consisted of females from significantly different ethnic backgrounds and ages. Carroll's figure of $29 \%$ is higher than the $14 \%$ of subjects in this study who took part in no physical activities at all in their free time since living in Canada but closer to the $21 \%$ who took part in no physical activities while living in their native countries. These figures suggest that a high school sample, who is enrolled in a regular physical education program, may have more motivation or encouragement to participate in physical activities in their free time than females who no longer take physical education.

For a fourth comparison of participation rates, Godin and Shephard's study (1985) measured participation in exercise using a method they believed to be a simple alternative to other complex methods of assessing leisure time physical activity. Their sample consisted of 306,18 to 65 year old healthy adult volunteers, a sample quite
different from the one used in my study of 109,14 to 16 year old female students. The mean units of participation for Godin and Shephard's sample were 45.8 units. The mean units of the sample in my study were far lower at 32.89 units. When comparing country groups, the South and East Asian students spent much less time on physical activity (26.21 and 29.08 units) than did Godin and Shephard's sample while the Hispanic group spent about the same amount of time (44.10 units) and the Other group spent more time (59.60 units).

For a fifth comparison of participation rates, a study conducted by the Vancouver School Board (1996) reported that 39\% of female Vancouver Secondary School students, enrolled in physical education classes, participated in extramural sports. Only $26 \%$ of the subjects in my study reported participating in extramural sports. This is a indication that immigrant females may not participate in as many physical activities outside of physical education class as other females.

In conclusion, the participation rates of the girls in this study were average when compared to some studies that use a liberal definition of physical activity but were low when compared to other studies. Quite clearly, however, the participation rates of this immigrant female sample were very low, for a level of exercise that would have cardiovascular training benefits. Also, since subjects spent more time on physical activity in their native country than in Canada, clearly there is room for improvement in the amount of time they spend on sports and exercise.

When looking at differences among specific country groups, the results obtained on participation rates of the South and East Asian groups are of particular interest. The South Asian group showed the greatest increase in the time they spent participating in physical activity after moving to Canada. They participated far more in physical activities in Canada than in their home countries. The reason for this may be that this group lacked opportunities in the past. When compared to the other country groups, the South Asian group was happiest about taking physical education in the past, but was
also the group who either started physical education late in school life or never had the opportunity to take physical education at all. Though the participation rates of the South Asian group improved after moving to Canada, this group still had the lowest participation rates of all four groups at the time the questionnaire was filled out. This suggests that outside barriers to physical activity such as traditions or family pressures persisted after the group moved to Canada or that these students needed more time to catch up to students who had more physical education experience. With support, however, the data suggests this group may integrate successfully into a physically active lifestyle.

Participation results for the East Asian group suggest this group needs special support integrating into physical education in Vancouver. Their participation rates in physical activity decreased and their attitude towards physical education class became less positive as they spent more time in Vancouver.

Here again, comparisons can be made to Carroll's study (1993) which explored the relationship between ethnicity and participation in sport among various ethnic groups in England. A major conclusion of Carroll's study was that a higher than average percentage of Bangladeshi, Pakistani and Indian females reported no participation in physical activity. Results in Table 18 of my study show similar findings. Females from these or neighbouring countries (South Asia) spent less time on physical activity than subjects from other countries.

The conclusions about religion, ethnicity and participation in physical activity found in Carroll's study (1993) however, were not supported by the sample in my study. Carroll concluded that to be a Muslim, Hindu or Sikh, from any of the Asian groups (Bangladeshi, Pakistani or Indian), is likely to result in a lower participation rate. There were very few Muslim, Hindu or Sikh subjects in my study so comparisons could not be made. Table 21 does indicate, however, that while Buddhist subjects from East Asia had very low participation rates in their native countries, when they moved to Canada,
their participation rates improved. A two-way ANOVA, which took into account ethnicity and religion, yielded no significant participation differences in the past or present due to ethnicity and religion combined and also showed no interaction between these two factors. Carroll's conclusion, that ethnicity and religion have a great effect on participation in physical activity, did not hold true in this case.

A study, conducted by the Vancouver School Board (VSB, 1996), supports the findings of my study that religion and ethnicity were not related to participation in physical education to any large degree. This study reported that $95 \%$ of parents and students in Vancouver Secondary Schools had no cultural or religious reasons to object to participation in physical education. It seems that the difficulties resulting from conflicting cultural or religious expectations, displayed in English physical education classes, (Carroll, 1993; Carroll and Hollingshead, 1993; Carrington and Williams, 1988) are not as evident in Vancouver schools.

One of the most important results found in my study is that participation rates in physical activity performed in students' free time increased as students' English language proficiency improved and as students became mainstream members of the school. Students, who were in the regular schooling stream, spent significantly more time on physical activity than those who were in ESL classes. This may indicate that ESL students need more encouragement and support in order for them to spend more time participating in physical activities.

## Factors that Influence Participation in Physical Activity

Reasons students gave for dropping physical activities after moving to Canada and for not participating in more physical activities than at the present time were very similar. They included having no one to participate with, friends not wanting to participate, having no time, rating themselves as poor at sports, and English language difficulties. These seem to be large barriers for students. If teachers could help students value physical activity more, feel more competent at sports and physical
activities, manage their time, and set up physical activity support groups, these immigrant students might become more physically active.

Interpretations of results from the 1981 Canada Fitness Survey (Canada Fitness and Amateur Sport, 1983) concluded that a much larger percentage (66\%) of Canadian females would like to be more active in sport and exercise than the present study shows. The obstacles to increased activity, that the 10-19 year old female portion of the Canada Fitness Survey sample identified, were quite different from those experienced by the grade nine students in my survey. The top five barriers listed by the 10-19 year old Canada Fitness Survey subjects were lack of time (69\%), inadequate facilities ( $33 \%$ ), lack of energy ( $12 \%$ ), lack of self-discipline ( $11 \%$ ) and cost ( $10 \%$ ) (Canada Fitness, 1981, 1984). Lack of time was the only common barrier experienced by the two samples.

The Canada Fitness Survey also had subjects identify changes that would likely encourage more activity. These results were very similar to the reasons subjects in my study gave for dropping physical activities after moving to Canada and for not participating in more physical activities. The top five changes were more leisure time ( $34 \%$ ), someone to participate with ( $34 \%$ ), better facilities ( $31 \%$ ), friend's interest ( $33 \%$ ) and family's interest ( $13 \%$ ). Lack of time, no one to participate with and lack of friend's interest were considered big obstacles to participation in activities by both samples. This information further supports the suggestion that students might participate in more physical activities if teachers could help them see ways of fitting exercise into their time schedules and set them up with other peers with whom to participate.

The reasons listed in Table 26 for participation in physical activities were adapted from research started by Kenyon (1968) in the late 1960's, when he developed an attitude toward physical activity (ATPA) inventory. Many researchers, who have since revised this inventory, identify sub domains of physical activity which subjects
rate on a scale of bipolar adjective pairs (in this case ranging from very important to not important at all) (Schutz et al, 1985). Question 22, in the student questionnaire, used this model to determine why students participated in physical activities. The benefits of physical activity that subjects in this research identified as most important were: health, learning new things, being with friends, making the body look better, meeting new people, reducing stress. These could be motivating factors which teachers might want to stress when discussing the importance of sports or exercise with their immigrant female students.

When the Canada Fitness Survey asked 10-19 year old Canadian females what their main reasons for being active were, their answers were very similar to those above. Pleasure, feeling better, controlling weight, flexibility, companionship and learning were their top reasons for being active (Canada Fitness and Amateur Sport, 1983). When the Vancouver School Board asked its female secondary physical education students why they thought students should take physical education, their main reasons were: health, pleasure, developing skills, learning new things, reducing stress, adding variety. Again the answers were similar. It is difficult to compare the results accurately, as measuring scales and reasons given in all three studies were not identical.

## Achievement in Physical Education Class

Results to questions on achievement in physical education class showed that a positive attitude toward physical education class is positively related to a high grade in physical education $(\mathrm{p}=.00)$. These data indicate that attitude toward physical education is a much stronger indicator of achievement in physical education, than is participation in physical activities in the subjects' free time.

## Conclusion

A summary of the most important findings of my study follows. Questions regarding students' backgrounds revealed that $26 \%$ of the female immigrant students had limited background knowledge and experience in physical education when they arrived in Canada. Also, on average, subjects spent about two hours a week on physical activity in Canada.

Questions on students' attitudes showed that female immigrants' attitudes toward physical education were less positive when they first immigrated to Canada, than when they were in their native country. These attitudes improved as they spent time in Canada. After living in Canada, there was no significant difference in subjects' attitudes toward physical education when related to their ethnicity or religion. Also, attitudes toward physical education were not significantly different when related to students' English language proficiency or number of years in Canada. Attitude toward physical education class was strongly related to achievement in physical education

Questions on students' participation rates revealed that ethnicity did have a significant effect on participation in physical activity in Canada. Religion, however, did not have a significant effect on participation in physical activity of female immigrant students in Vancouver. Most importantly, participation rates in physical activity, performed in students' free time, increased as students' English language proficiency improved and as students spent more time in Vancouver. Participation rates in physical activity, however, were not related to achievement.

Section two discussed the results obtained from the questionnaire and compared them with results from other research studies. Section three presents and discusses data obtained from the analysis of cooperative language activities on attitudes toward physical education.

## Part Two - Qualitative Research

Data collected from two hours of language generating activities were analyzed to increase my understanding of the capabilities of ESL students in expressing their attitudes about physical education. I also hoped to identify the main issues that promote anxiety in ESL female immigrant students in their physical education experience. Data obtained were analyzed in three ways. First, issues students brought up regarding English language difficulties were isolated. Second, the lexicogrammatical resources the subjects drew upon to express affect were analyzed by comparing them to those of a teenager who is a native speaker of English. Third, some of the main issues subjects made value judgments about were analyzed to determine which issues were most important to these students and to show how subjects supported these issues with reasons for their discontent.

## English Language Difficulties

ESL students will normally experience language difficulties when they are integrated into mainstream content courses. Most of these students are metacognitively mature enough to study content materials but lack the language skills required for their grade level. Ideally, content (in this case physical education) and language teachers need to work together to develop programs and strategies to support these students' language learning. ESL students' expressions of areas they experience language difficulties in physical education and their recommendations for how teachers can support them are very valuable and were therefore analyzed in this study.

Several students in part two of this research stated that they disliked physical education class because of language problems and because they could not easily communicate with other students. One student suggested, "We can't communicate with other regular students. Sometimes we can't understand what the teacher talks about, when the teacher is telling the class how to play the game." Another student agreed that
lack of understanding is a cause for her not doing well in physical education class, "I don't understand what my teacher says so I sometimes have trouble." Losing marks because of lack of understanding is another issue of great concern because it negatively influences students' grades. "I don't like test because test in physical education is too difficult and so many rules we must remember."

Students gave the following recommendations for what their physical education or ESL teachers could do to help them, and other ESL students, learn more from physical education class.
"Try to speak easy English, correct pronunciation, louder."
"The teacher have speak easy to understand English and speak more times."
"Give us the easier written test. Reduce the exam times."
"The physical education or ESL teachers help us learn more English and physical education teacher help us learn more sports. The ESL teacher can help us quickly to go to regular class and ESL teacher help us we can communicate with regular people."
"When we meet the difficult English work, can ask teachers to explain to us."
"Teachers speaking speed should slowly."
"The teacher should talk more slowly and clearly."
"Explain the rules carefully."
"Explain the rules more slowly especially for ESL students."
"They could print letters and write sentences to read easily on the paper that has information about several sports like tennis."

All of the recommendations these students gave are good teaching strategies for the language content method of teaching language and reinforce the importance of these strategies to assist students with limited proficiencies in English.

One group of students focused on language problems in a discussion where groups were guided through solving a problem they encountered in physical education class. The following conversation resulted.

1: I can't understand difficult words about physical education sometimes.
2: I agree.
1: We can have questions for teachers about difficult words. List all possible solutions together. \#1, joining school sport club. It will be exciting but we can have language problem.

2: Making new friends in physical education class. It is , I think, fun. I have some, then language problems. Be active, do something for your health.

1: I think we should try to have fun in physical education class. That will be very good and we think do the most acceptable to everyone is try to have fun in physical education class. If we try to have fun in physical education class, we can have friends and we can have a very fun physical education class. Are you agree?

2: Yup.
The students in this group came to the conclusion that they needed to focus on their English language problems, if they were to do well in physical education class. They also indicated that being active, making friends and enjoying physical education are also important for success. This is good advice that could possibly lead to success in physical education class for students with this attitude. These students, unlike those in previous examples, however, were not able to identify how teachers could help them better understand and express complex concepts in English.

## Lexicogrammatical Resources for Affect

Martin and Veel (1993) identify the following five methods of expression as the main lexicogrammatical resources available in the English language for articulating affect:
'qualities'
-describing participants a HAPPY boy
-attributed to participants the boy was HAPPY
-manner of processes the boy played HAPPILY
'processes'
-affective mental the present PLEASED the boy
-affective behavioral the boy SMILED
(Martin and Veel, 1993, p.1)

The following example of a personal reaction about the literary style of a story, written by a teenager who is a native speaker of English, is found in Martin and Veel (1993). It is presented as a typical native teenage writer's work and exhibits the rich resources such students have available for expressing their own personal feelings on a topic.

The author has intentionally written the ending this way to create the effect that she WANTED. I felt EERIE and ISOLATED after reading the ending - "like a padlock snapping open" sounded so LONELY and made me feel so AFRAID. I also felt very EMPTY after reading the passage. It had such a DEPRESSING ending that made me feel AFRAID and SCARED...added to the EMPTINESS... how the author creates the feeling of ISOLATION so carefully displayed. It sounds HOLLOW and DEAD and creates FEAR in your mind...I ENJOYED the passage immensely.
(Martin and Veel, 1993, p. 4)

Data, obtained from the 17 ESL subjects in this study, demonstrate that the range and richness of vocabulary presented in the above passage is not available for use by students with limited English proficiency. An analysis of the written and oral data collected for this research, that indicates how the ESL subjects articulated their feeling about physical education, follows.

Qualities: feelings in self
Maybe we can play together HAPPY
then students feel very GOOD and COMFORTABLE.
I feel very, very TERRIBLE
We must feel SICK or very TIRED after that.
Some of the ESL students might be ALONE
They (the boys) may make ANGRY
The boy may make us feeling SAD.
some regular students make me feel so SADLY

The following list exhibits the difference in the sophistication of language used to express affect by a native English student compared to an ESL student.

Native writer's resources ESL students' resources
wanted
eerie
isolated
lonely
afraid
empty
depressing
afraid
scared
emptiness
isolation
hollow and dead
fear
enjoyed

## happy

good and comfortable
terrible
sick or tired
alone
angry
sad
sadly

The limited lexicogrammatical resources of ESL students are also exhibited in the following analyses of written and oral data. The examples given demonstrate how the ESL subjects articulated their reactions to others and described their personal mental state and their behaviour.

Qualities: reaction to other
because they (P.E. teachers in Canada) are NICE
it (P.E.) is fun
It will be EXCITING
activities are too BORING
activities are too DIFFICULT to do
test in P.E. is too DIFFICULT
Everything is so HARD to do in Vancouver
most of the exercise is too HARD to do
playing other very EASY things
Processes: feel (mental state)
I LIKE P.E. here
I DON'T LIKE P.E.
I DISLIKE P.E.
In our country schools DON'T CARE about P.E.
I HATE the P.E. class at all.
I WANT to choose
everyone HAS WISH to join it

## Processes: express (behaviour)

The classmates will ENJOYED than my country
So we can have fun and ENJOY in P.E. class.
ESL teacher...JOKING with them.

## Reasons for Value Judgments

The third way the language data was analyzed was to identify some of the main issues about physical education on which subjects made value judgments and to determine which judgments were supported by good reasons and which were not. Value judgments need to be supported by good reasons in order for the judgment to be substantiated (Rachels, 1993).

This section of data analysis deals with students' value judgments about physical education in a school institution. It is important, then, that institutional reasons (not personal reasons) which can be institutionally legitimate and adequate, and can "make a case" (for example, an allowable excuse for missing school) are used to support the value judgments made. Making a case in law requires learning legal rules and legal language; similarly, making a case in an institution requires learning the language and culture of the institution, especially the basis for appeal and evaluation. Since student "resistance" to physical education is being dealt with here, a crucial distinction is made between personal resistance or venting feelings about the institution and institutional resistance or making a case which the institution has some responsibility to consider. Distinctions are thus made between adequate personal and institutional reasons.
(a) Personal preference.
"I like/ dislike X" (+ personal reasons).
(b) Value judgment. "A should do Y " (+institutional reasons).

## Reasons Personally but not Institutionally Adequate:

I like P.E. because easy to skip.
I like P.E. because don't have any homework.
I like P.E. because can stop thinking (use brain).
I like P.E. because don't have to talk.
I like Guidance because I don't have to do anything in that class and I can finish my homework.

I dislike P.E. because if I forget to bring P.E. strip, we need to do Cafe duty.

## Main Issues: Are the Reasons Institutionally Adequate?

1. Physical education IS HARD!

Students disliked the amount of physical exercise they were expected to do in physical education classes in Vancouver schools. Students perceived many differences in physical education between the host city and the home city (e.g., Vancouver and Hong Kong). Students gave the following responses to the question, "What part of physical education class at Killarney Secondary School do you like less than the physical education class in the country you lived in before?":

Everything is so hard to do in Vancouver.
Hong Kong is better than Vancouver like we don't have to run 6 laps and we have to do less things.
...like running 6 laps
YA, like running 6 laps here but in Hong Kong we just need to run $1 / 2$ lap, so we feel so tired.

In Hong Kong we don't need to run 6 laps and every class only have $1 / 2$ hours.
Students gave the following value judgments, complete with reasons for disliking the amount of physical exercise they were expected to do in physical education
classes in Vancouver. The underlined portion of each sentence is the reason the students gave for the value judgment.

I don't like physical education about many kinds of activities are too boring and difficult to do. (Note: This comment is not really institutionally adequate.) I don't like six laps because it is too hard for me to run.

6 lap because too hard to run; most of the exercise is too hard to do.
I dislike football because it is too hard to do and 6 laps too.
I don't like physical education because it is too boring, not enough energy to do those exercises, too much running.
because we don't do the running so often, so we will very tire after running a few
laps.
I don't like 6 laps. It's because I feel very, very terrible after I run.
(Note: This comment is more institutionally adequate and convincing.)
Students also gave recommendations for changes to physical education class. In this analysis, a recommendation is identified by placing the word JUDGE before it, as is done in the following examples of answers to the question, " What could your physical education or ESL teachers do to help you and other ESL students feel comfortable in, and learn more from, physical education class?"

JUDGE Don't force us to run 6 laps.
JUDGE Not to do some very hard exercises.
JUDGE Do not force you to do things you can't do.
JUDGE They should also give us less running REASON because we don't run so often. REASON We must feel sick or very tired after that.
(Note: This comment is institutionally more adequate.)
The reasons students gave for their value judgments range from less to more adequate. A reason for not liking running because 'it is too boring', is less adequate than I feel very, very terrible after I run', which is even less adequate than 'we don't run
often, therefore we feel sick or tired after rumning'. ESL teachers should discuss this contrast in reasoning with their students so they begin to understand the difference between presenting a case that carries some weight and that the institution has some responsibility to consider, as opposed to venting feelings on a topic.

## 2. English-speaking partners in group work.

A strategic area of physical education is group work where ESL students and native speakers cooperate. Second language researchers recommend that ESL students work cooperatively in pairs or groups, particularly with native speakers, when learning English (Crandall, 1993). Specialists in multicultural education also view group work with native speakers positively, because it often requires cooperation across cultures (Meyer, 1993). Group work in physical education is likely to be seen as particularly favourable, since physical education is widely regarded as an area of easier language demands. For this reason, ESL students' expressions of reasons for and against various forms of group work, are important. A central concern that a number of ESL students expressed regarding this issue is that it is hard for an ESL student to get a partner who is a 'regular' student and a native speaker. One ESL student expressed her thoughts on this matter well:

Some students have no friend in P.E. Sometime we need partner. The teacher might not decide it for you. JUDGE I think its duty that they decide already gave you partner. REASON Sometime some students are not find a partner and then they feel sad. JUDGE So teacher have to decide a partner.

Another ESL student felt that racism was involved, "I think it had racism that some regular students make me feel so sadly." Several students made the following judgment or recommendation, JUDGE "Decide a partner for you when you can't find a partner."

One student expressed a similar sentiment but in a positive manner,
JUDGE Sometimes physical education teacher says you go this team REASON then I feel comfortable. I learn many things in physical education class from
teachers and when we are talking with new people students, we learn more things.

Other students suggested that the problem of ESL students having a difficult time finding native speaking partners would be alleviated if ESL students were segregated into a separate class.

JUDGE Make two class, regular physical education class and ESL physical education class.

JUDGE Maybe the ESL can try to make up a new physical education class for only ESL students. REASON We can find a partner easier when we need to. JUDGE The school can have the ESL physical education class for the new coming ESL students. REASON So the newcomer will know what's the physical education in Canada REASON and they will fit well in the first year. This last argument, for the segregation of ESL students by providing them with ESL physical education classes, is expressed with reasons which are legitimate. A case can be made that newcomers meld into ESL physical education classes more easily and with fewer difficulties than they meld into mainstream physical education classes. This reasoning, then, can gain an institutional hearing.

The issues of segregation and integration are brought up again by two groups of ESL students in guided discussions about the difficulties of finding partners for activities in physical education class. In their group discussions, these two groups isolated not being able to find partners a problem they had in physical education and identified possible solutions for this problem. One group arrived at a recommendation to segregate; the other recommended that ESL students try harder to interact with regular students. Both examples are given. "Advantages" in the following examples are considered as "reasons for" and "disadvantages" are considered as "reasons against".

## EXAMPLE 1

1: The problem that we are having is its hard to get a partner in physical education.

2: Regular students doesn't like you because we don't do the exercise well.
1: And we can't communicate with regular partners.
2: List the possible solutions together. \#1, we can have all ESL student of the same grade in one classes.

1: \#2, or study more English.
2: \#3, or practice sports at home.
1: \#4, or join clubs to get in shape.
2: What are the advantage and disadvantage of each one? \#1, advantage is we can communicate and have friends. Disadvantage is we don't have enough student of the same grade.

1: \#2, the advantage is study more English can help us communicate with others. The disadvantage is we don't speak English well and that's why we are in ESL classes.

2: \#3, advantage is practice sports at home can get higher mark. Disadvantage is we don't have a spare time at home.

1: \#4, the advantage is join clubs to get in shape. Disadvantage is we can't communicate with other people.

2: Do the one most acceptable to everyone. JUDGE The number is \#1, we can have all ESL students of the same grade in one classes.

EXAMPLE 2
1: It is hard to find a partner.
2: Sometimes it is hard to have a partner especially regular students.
3: It is difficult to find a partner in teamwork playing.
1: To try to have a talk with classmates.

2: We have to participate in playing by ourselves.
3: To think that we can do our best in every place.
2: \#1 advantage, we can improve our English ability.
3: Sometimes we feel ignored.
1: \#2 advantage, we can make friends with our classmates.
2: Disadvantage, we don't know how to play things like games so we can feel difficult.

3: \#3, we can have self confidence. Disadvantage, sometimes we think it and don't perform.

2: \#4, advantage, we can get good marks.
3: Even though we do our best, we can get bad marks, therefore we can feel disappointed about ourselves.

1: Do the one most acceptable to everyone. JUDGE We have to try to have a talk with classmates.

Many educators would feel that the recommendation of segregation given by the first group threatens educational goals of learning English and of multicultural interaction. Many ESL students and parents would object to making a 'ghetto' for students in this way. The students in the second example allude to this when they come to the conclusion that even though it is difficult, there are many advantages to communicating with 'regular' students. Specific advantages might be making friends, improving their English abilities, feeling less ignored and feeling more confident. The students in the first group, however, felt the pain of communication with native students too great to bear so suggested they might learn better in a segregated environment. Controversial issues like this call for debate, rather than resistance and stalemate; ESL classrooms need to support multilingual and multicultural groups to explore such judgments and to assess the reasons offered for them.

## Conclusion

The analysis of language data obtained for the qualitative section of my research resulted in three main findings. First, students articulated again and again that English language problems prevented them from communicating with other students in their physical education classes and resulted in them disliking physical education and doing poorly in this class. Students recommended many good teaching strategies that physical education teachers could use to assist students with limited proficiency in English.

Second, the ESL student sample did not demonstrate the range and richness of vocabulary that native speakers have available for use. Analyzed language data showed that the ESL sample had limited lexicogrammatical resources to describe their feelings, their mental state, their behaviour and their abilities to react to others.

Third, subjects made value judgments about two main issues. Some of these judgments were supported by good reasons and some were not. The first issue was that physical education in Vancouver is difficult and very different from physical education in their native countries. The second issue was that it is difficult for ESL students to pair up with native speaking partners. Students showed varying abilities in giving institutionally adequate reasons for the judgments they made concerning these two topics. It is important for ESL teachers to teach students to understand the difference between presenting a case that carries some weight and that the institution has some responsibility to consider, as opposed to merely venting feelings on a topic.

## CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS Summary - Part One

For this study, data was obtained from 109 recent immigrant female students in order to examine these students' background experiences in physical education, their attitudes toward physical education class and their participation rates in physical activities in their free time. A questionnaire, designed to elicit detailed responses on the above information, was the survey instrument used. The questionnaire was completed by students who had immigrated to Canada within the past four years and who were enrolled in grade nine physical education classes at Killarney, Eric Hamber and Templeton Secondary Schools in Vancouver.

## Background experiences in physical education

Background information provided by the subjects revealed that the sample came from 22 different countries with a majority coming from Hong Kong (44\%), Taiwan ( $17 \%$ ) and Vietnam ( $9 \%$ ). The sample population was similar in ethnic background to the total population of immigrant students who immigrated to Canada and entered public schools in Vancouver from 1991 to 1994, with the exception that substantially more of the sample came from Hong Kong. Sixty-seven percent of the sample population categorized themselves as Chinese, $7.3 \%$ as Vietnamese, 3.7\% as Latin American, and $2.8 \%$ as English, Filipino and Sikh. The most common languages spoken by the sample at home were Cantonese (46\%), Mandarin (20\%), Vietnamese (7\%), Tagalog (5\%) and Spanish (4\%). All subjects, except one, used their native language to communicate in their home settings. This, and the fact that the subjects had lived in Canada for four years or less, suggests that these students still retained some of their native cultures and traditions and hopefully had not forgotten their experiences in physical education in their native countries.

Twenty-six percent of the sample had limited background experiences in physical education. Of this $26 \%, 8 \%$ of students had not taken any physical education
classes in their native countries. These students came from India, Vietnam, China, Iraq and Paraguay. Students from South Asia first took physical education class at a significantly higher grade than other students and subsequently spent significantly fewer years taking physical education. The mean number of years of physical education, that all students had taken before moving to Canada, was seven year; South Asian students had taken only three year.

The average time subjects spent in physical education class in one week in their native country was 2.5 hours. This amount of time is similar to that of students in elementary school in Vancouver. The mean number of students in subjects' native physical education classes was 38 . Class sizes were larger than in Canada, where generally about 30 students are enrolled in a class.

The majority of the sample (68\%) had participated in coeducational physical education while in elementary school in their native countries. At the time the questionnaire was given, all subjects were in secondary school and $70 \%$ of the sample were enrolled in girl's only physical education classes. When asked what their preference was, $72 \%$ of the girls stated they preferred same sex classes. While this survey did not ask girls to state why they preferred same sex classes, other literature suggests that girl's in coeducational classes receive less attention and help, are less involved, experience more embarrassment, lack confidence and must put up with verbal and physical harassment from boys. Language data from part two of this research that supports these findings are "Don't like to combined together with the boys." "The boys will do all the exercise." "The boy may make us feeling sad."

Physical education is a required course for all grade 8, 9 and 10 students. Subjects were asked if they would have taken physical education during the year they completed the survey or during the following year if they were given a choice. In both cases, about a third of the students said they would elect to take physical education. By grade 11 and 12 when physical education becomes an elective, less than $10 \%$ of girls
enroll in physical education classes (Vertinsky, 1992). It seems that students' attitudes toward physical education change dramatically between grade nine and eleven.

## Attitudes toward physical education class

The sample as a whole felt somewhat happy about taking physical education in their native country. When students immigrated to Canada, they became less positive about taking physical education and stated that they felt neither happy nor sad about taking physical education. Their feelings became more positive as they spent time in Canada. At the time the survey was done, the subjects were somewhat happy but not as happy as when they lived in their native countries. A conclusion that may be drawn from these findings is that there is no reason for girls to be more positive about physical education classes in their native countries. There is room, therefore, for teachers or administrators to implement strategies to make immigrant girls feel more positive about physical education in Vancouver schools. It should be noted that overall, this sample felt positive about physical education. Throughout the survey, subjects failed to express any strong negative feelings about physical education. The only indication that subjects felt physical education lacked meaning was that they rated physical education class as less important than their other classes. This contradicts studies that conclude that school physical education often fails to be meaningful to young women (Scraton, 1987).

## Participation in physical activities outside of physical education class

On average, subjects spent slightly more time on physical activity in their native country than in Canada, though in both cases they spent just over two hours a week on physical activity. Eighty-six percent of subjects participated in some physical activity in Canada compared to $79 \%$ who participated in some activity in their native country. Eighty-six percent is a high participation rate which likely resulted due to the liberal definition of physical activity used for this study. The participation results obtained in this study compared closely with those from Canada's latest fitness survey (Canada Fitness and Amateur Sport, 1983).

Though more of the sample participated in some physical activity in Canada than in their native countries, fewer participated in more than three hours of physical activity in Canada ( $16 \%$ ) than in their native countries ( $29 \%$ ). These results show far lower activity rates than the Canada Fitness Survey (Canada Fitness and Amateur Sport, 1984) which suggested that $50 \%$ of Canadian females participate in more than three hours of physical activity per week and of these $50 \%, 39 \%$ achieve the recommended level of cardiovascular fitness needed for health benefits.

When more vigorous definitions of 'activity' are used in research, far fewer females are shown to be physically 'active'. This explains why many studies identify as many as $60 \%$ of women as being inactive in 'effective exercise' (Fazey and Ballington, 1992; Brooks, 1987). It also brings up huge concerns about whether most females are receiving the health benefits of a decreased incidence of the many major health problems that habitual vigorous physical activity brings. Only between eight and $16 \%$ of the immigrant subjects surveyed in this study participated in exercise at a level likely to have a positive impact on their cardiovascular health. If this indicates the level of participation of the general population of immigrant students, educators and other professionals, such as doctors and politicians, need to be concerned about the health and well-being of these young women.

## Factors related to attitudes toward physical education and

 participation rates in physical activity.The data collected in this study was used to determine whether:

1. Student attitudes and participation rates were different depending on the geographic area from which students immigrated.
2. Student attitudes and participation rates were different depending on the proficiency of English language students had acquired.
3. Student attitudes and participation rates were different depending on how many years students had spent in Canada.
4. Student attitudes and participation rates were different depending on the religious beliefs students held.
5. The mark students received in physical education class differed depending on attitudes and participation rates in physical education.

Differences in students' attitudes toward physical education class, based on the geographic areas the subjects came from, and the religious beliefs the students held, were measured for three time periods: when the subjects lived in their native country, when they first moved to Canada and at the time they completed the questionnaire which averaged 1.75 years after they moved to Canada. Differences in participation rates in physical activity were only measured for two time periods: when students lived in their native country and when they lived in Canada. In this case, measures were not taken for the time period when students first moved to Canada because many students would not have had time to join activities immediately after moving. Differences based on the students' proficiency of the English language, the length of time they had spent in Canada and the marks they had received in physical education class were measured only for the time the students completed the questionnaire. The findings of the study revealed the following information about students' attitudes toward physical education and participation rates in physical activities.

There was a significant difference in students' attitudes toward physical education in the past prior to moving to Canada and when students first arrived to Canada, when related to the students' geographical locations. The South Asian group was happier than the East Asian group in the past and the Other group was happier than the East Asian group when they first arrived to Canada. At the time the questionnaire was filled out, after the students had lived in Canada for some time, however, there was no significant difference in attitudes toward physical education when related to the students' geographical locations. There was a significant difference in student participation rates in physical activity both in the students' native country and in Canada when related to students' geographical locations. In all cases, the South Asian group spent the least time on physical activities followed by the East Asian group followed by the Hispanic and Other groups.

There was no significant difference in students' attitudes toward physical education when related to the proficiency of English language students had acquired. There was a significant difference in students' participation rates in physical activity when related to the proficiency of English language students had acquired. Students' participation rates increased as their proficiency in English increased.

There was no significant difference in students' attitudes toward physical education when related to how many years the student spent in Canada. There was, however, a significant difference in students' participation rates in physical activity when related to how many years the student spent in Canada. Students' participation rates increased as they spent more years in Canada.

There was a significant difference in students' attitudes toward physical education in the past before moving to Canada when related to the religious beliefs students held. Buddhist and Christian students showed more positive reactions to physical education than students with no religious affiliation. There was no significant difference in students' attitudes toward physical education when subjects first moved to

Canada or while students lived in Canada when related to the religious beliefs students held. There was a significant difference in students' participation rates in physical activity in the past, before moving to Canada, when related to the religious beliefs students held. The Christian and no religion group spent more time on physical activity in the past than the Buddhist group. There was, however, no significant difference in students' participation rates in physical activity while students lived in Canada when related to the religious beliefs students held.

The marks students received in physical education class differed significantly depending on students' attitudes toward physical education class. Students with more positive attitudes had higher marks. The marks did not, however, differ significantly depending on students' participation rates in physical activity.

Five main findings resulted from the investigation of factors related to attitudes toward physical education and participation rates in physical education. First, attitudes toward physical education class did not change significantly as students lived in Canada longer or as students became more proficient in English. Second, participation rates in physical activities did improve significantly as students spent more time in Canada and became more proficient in English. Third, after students moved to Canada, differences in attitudes toward physical education, based on geographic locations and religious beliefs, disappeared. This suggests that students assimilate or learn from each other as they spend time in Canada. Fourth, after students moved to Canada, differences in participation rates in physical activity, based on geographic location, remained but differences in participation rates, based on religious belief, disappeared. Fifth, student attitudes toward physical education were closely linked to achievement rates of the students in physical education class while participation rates in physical activities outside physical education class were not linked to achievement rates of students in physical education class.

These five main findings have some implications for how teachers should treat immigrant students to encourage positive attitudes toward physical education class and also encourage higher participation rates in physical activity. First, teachers should spend more time and effort teaching and encouraging students who immigrate from geographic areas where females never or rarely participate in physical activities. Students who come from areas where physical activity for females is not valued are missing the background knowledge needed to integrate into physical education successfully and need to make up that knowledge before moving on to new knowledge. Second, teachers need to encourage new immigrants and students with poor proficiencies in English to participate in physical activities outside of physical education class. Their rates of participation are far lower than those of students who have lived in Canada for a longer period and are proficient in English. Third, because attitudes toward physical education class are so closely linked to achievement in physical education, teachers need to pay close attention to students' attitudes and develop strategies to improve them.

In this survey, students also identified four major factors that prevented them from participating in physical activities. Naturally, these factors are complicated by new immigrants needing to deal with various demands resulting from their move to Canada. Becoming accustomed to life in a new country brings with it many kinds of stresses. Teachers could increase student participation in physical activities by helping them see ways to break down the following four real or perceived barriers.

First, subjects were most concerned about having no one with whom to participate in sports or exercise. Closely related to this, many students did not participate in sports or exercise because they did not have friends who wanted to participate with them. Second, subjects felt they did not have the time needed to participate in sports or exercise. It is possible that they did not value physical activities highly enough to take the time to participate. Third, students felt they did not have the
skills or abilities needed to play sports. This difficulty is well documented in the literature on females in sport (Greendorger, 1983; Nicholls, 1984; Deci, 1975). Girls often have a self-perception of inferiority in the motor domain and so avoid demonstrating their lack of competence in sports. This results in the failure to learn new skills, which leads to inactivity, and avoidance of sports. This cycle feeds on itself. Fourth, students with English language difficulties found it exceedingly difficult to become involved in physical activities. This highlights the importance the ESL teacher plays in helping immigrant students integrate successfully into school sport and exercise activities.

Students identified their parents, followed by their friends and siblings as their greatest supporters of participation in physical activities. Parents were also, however, identified as the greatest human barriers to participation in physical activities. These findings suggest that teachers should elicit the involvement of parents, as much as possible, to encourage new immigrant students to become involved in sports and exercise.

The main reasons this immigrant female sample gave for participating in sports and exercise were to improve their health, learn new things, be with their friends, improve their physical appearance and meet new people. Teachers should use these points as motivational factors when encouraging the involvement of immigrant students in physical activities.

## Summary - Part Two

For part two of this study, 17 female students of varying backgrounds, who were enrolled in both physical education classes and ESL classes at Killarney Secondary School, were led through two hours of language generating activities. These activities were specifically set up to encourage subjects to express their attitudes about physical education. The data collected showed the range of abilities these ESL students had in expressing their attitudes about physical education. Analyses of written and oral data
collected clearly demonstrated that this sample of ESL students had limited lexicogrammatical resources available to express affect. They did not possess the range and richness of vocabulary that is available for use by native speakers of English.

The data collected were also analyzed to see whether subjects made value judgments that were substantiated with institutionally legitimate reasons concerning issues about physical education. Three issues were used in this analysis: students disliked the amount of physical exercise they were expected to do in physical education classes in Vancouver, students experienced difficulties communicating with teachers and students, and students found it hard to find partners in physical education class in particular partners who were 'regular' students and native English speakers. In discussions on all of these issues, different students recommended both segregation and integration as solutions to certain aspects of these three issues. Some students articulated that the many advantages to being integrated with 'regular students' included making friends, improving their English abilities, feeling less ignored and feeling more confident. Others felt a segregated environment would better benefit ESL students as the pain of communicating with native students caused a great barrier to their learning. As has already been identified, controversial issues such as this one call for debate, rather than resistance and stalemate; ESL classrooms need to be environments where such issues can be explored.

Throughout this part of the study, students showed varying abilities in giving institutionally adequate reasons for judgments they made. It is important for ESL teachers to instruct their students in language and thinking processes which can be used to present a case that carries weight and as well as one which the institution has some responsibility to consider. Through this process, ESL students can learn to think critically, evaluate situations accurately and make good choices. More specifically, ESL students, who have had explicit instruction on the discourse of value judgments and
choice, can more effectively inform their teachers about their beliefs, values and knowledge in the areas of physical education and physical activity.

## Conclusion

The conclusions presented here are drawn from both data gathered from the quantitative questionnaire in part one of this study and from qualitative language data obtained in part two of this study. These conclusions will be relevant to any school that enrolls new immigrant students in their physical education classes.

This study has served a number of different purposes. First, the absence of research on the sporting experiences of females from diverse ethnic groups has recently been substantiated and there is a great need for studies such as this one which examine the experiences of new immigrant female adolescents in sport and exercise. Second, there has been much concern, recently in Canada and the United States, about the loss of interest and dropping out of many adolescent females from physical education class and extracurricular activities. This trend has resulted in low fitness levels for adolescent girls. It is crucial that this trend be reversed as female adolescents need regular physical activity in order to remain healthy. This study examined why a specific segment of the female adolescent population, new immigrant females, has low participation rates in physical activity and discusses different methods of encouraging these students to stay physically active through participation in physical education and extracurricular sport and exercise activities. These are important steps if the low participation rates of young females in physical education and extracurricular sports are to be increased. Third, and most importantly, this study attempted to identify the physical, social, and linguistic needs that female immigrant students have in physical education class and as they participate in extracurricular physical activities. If the needs of these students are addressed, the benefits of participation in physical activities would be many. There is great potential for the improvement of health, the learning of language and culture and the raising of self-esteem of new immigrants in Canada.

School personnel have a responsibility to evaluate physical education classes to ensure that all students' interests, including those with little status and weak voices, are served. This study attempted to identify the specific needs of female immigrant students enrolled in grade nine physical education classes. Two major difficulties, subjects identified in part two of this study, were limited proficiencies in English and low skill levels. Students felt that physical education was too physically demanding on them because they lacked the physical strength, endurance, motor skills and self-esteem required to perform as well as had English language problems that resulted in difficulties understanding, communicating, making friends and finding partners. Sixtytwo percent of the new immigrant students in this study had English language difficulties that ESL and physical education teachers needed to address and $26 \%$ of the students in this study had limited experiences in physical education because physical education classes offered to girls in their country were limited or non-existent. This likely resulted in these $26 \%$ of students having limited motor skills.

This study gives suggestions as to how teachers can address the difficulties that new immigrant girls identified having in physical education class. In most schools in Vancouver, new immigrant students are mainstreamed into regular physical education classes immediately upon entering a school. This is a positive step because these students are then exposed to authentic content area materials and tasks and are challenged to learn English. It is crucial, however, that physical education teachers, who have new immigrant students with limited proficiencies in English enrolled in their classes, are familiar with strategies of successfully integrating these students into their mainstream content courses. These strategies include task-based learning; cooperative learning; using the knowledge framework to teach language, content and thinking skills; teaching students to affect change through critical reflection and action; valuing the linguistic, cultural and religious diversity of students; and focusing on good teaching practices for girls. These strategies will be discussed in detail in the next section.

In order to fulfill the purposes of this study, students' attitudes toward physical education and their participation rates in extracurricular physical activities were measured. The findings identified further areas of concern. When measuring attitudes, subjects displayed moderately happy feelings about taking physical education. The fact that they felt less positive about taking physical education when they first immigrated to Canada and were happier taking physical education in their native country then in Canada, however, shows that teachers and administrators need to implement strategies to make immigrant girls feel better about taking physical education.

Students' attitudes toward physical education were strongly linked to the mark they received in physical education class. Students with good attitudes generally received high marks. These results suggest that one method teachers could use to improve student achievement is by working on improving their attitudes. Attitudes toward physical education did not differ significantly depending on length of time students spent in Canada, their proficiency in English, their cultural background or their religious belief. This suggests that teachers do not need to worry about one segment having tendencies toward poorer attitudes than others.

Results about participation rates of new immigrant females in extracurricular physical activities differed greatly from those of attitudes toward physical education. Teachers can expect great differences in participation rates depending on students' backgrounds, proficiencies in English and time spent in Canada. Participation rates in physical activities improved significantly as students spent more time in Canada and as they became more proficient in English. Also, differences in participation rates based on cultural background continued even after students spent a number of years in Canada. In addition, participation rates in extracurricular physical activities showed no direct relation to the mark the students received in physical education. Students who first immigrate to Canada, especially those with poor English coming from cultures where physical activity for girls is not valued, need special assistance and
encouragement if they are to participate in extracurricular physical activities. This will be discussed further in the next section.

Perhaps the most significant finding of this study was that while a large percentage of subjects participated in light physical activity, very few of the immigrant students surveyed participated in exercise at a level likely to have a positive impact on their cardiovascular health. If the results of this study are accurate, only a low percentage of female immigrant students are receiving the health benefits that regular vigorous physical activity brings. This finding is alarming as it will translate into higher health care costs and lower quality of life for these individuals in their future lives. Opportunities for these students to become involved in physical activities during their school years must be found in order for students to develop a pattern which includes physical activity in their adult lives. Teachers should focus on helping students break down the barriers that prevent them from being physically active and market the benefits of physical activity that are most important to female immigrant students.

The analysis of language data provided a very significant finding. As ESL students struggled to find solutions for the problems they experienced in physical education class, it became clear that the procedure for ESL classrooms to explore value judgments and assess whether they are substantiated with institutionally legitimate reasons is a very important one. For example, the segregation of ESL students from the mainstream as well as the integration of ESL students into the mainstream were used by different students as solutions for the same problems. It is important the ESL classrooms identify and explore such issues. It is also important that ESL instruction be intentionally planned to engage ESL students in tasks that will promote the development of their language of value judgment and choice in institutionally legitimate discourse.

This study developed a perspective on one aspect of the education process as it pertains to new female immigrant students. Such investigations are a necessity in school districts like Vancouver where immigrant students are a majority. This
investigation led to a new kind of understanding of the physical education of immigrants that is more sophisticated, more attentive to the diversities of minority communities and most importantly, more informed by the realities of their experience than is presently the case.

## Implications of Findings for Teaching

When examining the findings of this study, it is evident that part two substantiates some of the main findings which arose out of part one. Concerns that surface in both sections of the study are those that have the greatest implications for teaching physical education. In part two, the three main difficulties subjects identified having with physical education were that it was too physically demanding for them, they felt isolated because they had problems understanding and communicating with the teacher and other students and they lacked the skills needed to make friends or partners in class. The four main reasons subjects gave for dropping physical activities or for not participating in more physical activities in part one can be directly related to these three difficulties. In part one, subjects identified not having the skills and abilities to play sports, having no one with which to participate in activities, having English language difficulties, and not having enough time as being huge barriers.

Most of the barriers identified above concern either developing communication skills and learning skills needed to make friends and find partners for practicing sport skills or developing motor skills in sports. All of these skills are very complex to teach and learn. ESL students desperately need trained, experienced ESL teachers to help them develop language skills. As previously mentioned, ESL students need to be taught communication skills so they are able to explain their 'case' in a way that is acceptable to their teachers, fellow students and others in the education institution. ESL students also need trained physical education teachers who are able to service their interests adequately and provide them with the opportunity for successful and complete participation in physical education classes. Some examples of strategies teachers can
use to help ESL students integrate more successfully into physical education classes are found in the review of literature section. How a number of these strategies can be directly applied to the situations above will be discussed here.

First, by using specific cooperative learning strategies, teachers can orchestrate positive interactions between students in their classes in a structured way (Kagan, 1990). In classrooms where integrated student learning teams, through cooperative learning are used, students choose more friends from other races and interact in a more integrated pattern. Some studies have shown very dramatic reductions or eliminations of self-segregation among students following cooperative learning experiences (Slavin, 1983). Cooperative learning also aids students with limited English proficiency to develop and practice good communication skills. Because students must interact during cooperative learning, it places high demands on improved comprehension and the production of language (Kagan, 1990). Physical education teachers could potentially meet many of the social needs of their ESL students by using cooperative learning strategies. Professional development in how to effectively use cooperative learning in the classroom has been offered by the Vancouver School Board and by many other districts on a regular basis.

Second, teachers can assist ESL students in improving their poor communication skills by using strategies that improve their English language abilities. As might be expected, a low level of English language proficiency was identified in both parts of the research as being a barrier to participation in physical activities and as a source of grief in physical education class. As mentioned in the review of literature section, this difficulty can be minimized by physical education and ESL language teachers working together to develop programs and strategies to support students as they struggle to learn a new language. Students need training if they are to use this new language to think critically, compare past and present experiences and support their judgments with institutionally adequate reasons.

Unfortunately research shows that many mainstream teachers in British Columbia do not modify their instruction to meet the needs of their ESL students (Gunderson, 1985). No evidence from the present study was found to contradict this conclusion. Teachers who have developed skills in teaching content and critical thinking to ESL students with minimal English language abilities and have modified their instruction to utilize these skills, have many strategies available to assist their students in meeting their learning potentials. One of the important strategies available to them is to assist their ESL classes in making good judgments, backed by institutionally adequate reasoning.

The knowledge framework is an effective tool for teachers to use if they wish to improve the English language abilities of their students. The knowledge framework is a strategy that can be used in all classes to minimize English language demands and to access knowledge ESL students possess in their first language. Thinking skills, key structural vocabulary and key visuals help by displaying essential information without language overload, by explicitly depicting relationships and by accessing background knowledge (Early, Thew, and Wakefield, 1986). Teachers that are trained in the knowledge framework learn strategies such as using visual representations of knowledge like trees, webs, charts, and tables to help learners understand complex concepts; using concrete experiences like visuals, media and demonstrations; reinforcing key concepts in a variety of situations and activities; teaching language at the same time they are teaching content; and using the written mode to reinforce the spoken (VSB, 1994).

An example of how the knowledge framework can be used in teaching a physical fitness unit is found in Appendix F. Included in Appendix F are some key visuals that are extremely helpful for ESL students because they display important information with limited language use. Teachers need training in how to apply the knowledge framework
in their teaching. The Vancouver School Board has regularly offered this training in professional development sessions.

A crucial component of the knowledge framework is that students learn critical thinking skills at the same time as they learn language and content. Teaching critical thinking skills is a third strategy teachers can use to help ESL students integrate more successfully into physical education classes. Research has clearly established that students need the skills and processes of higher-order thinking to evaluate present and future situations accurately and make good choices for themselves and others (Bondy, 1984; Auerbach, 1993). The students surveyed in this study require thinking skills to affect change through critical reflection and action to remove the barriers to participation in physical activities in their lives and to establish how to function in their physical education classes more successfully. They were led through this process in this study by exploring controversial issues and by making value judgments substantiated with institutionally legitimate reasons. Teachers who have the knowledge and skills to train their students to use these types of critical thinking skills, can empower them to take more control of their lives.

A specific area of critical thinking, that is identified in this study, is that of evaluating attitudes, values and beliefs. To be effective, both teachers and students need to be able to assess attitudes, values and beliefs of themselves and others. The conclusions of this study establish that student attitudes toward physical education are closely linked to their achievement in physical education. Students need to obtain skills in higher level thinking if they are to change attitudes and could do so by reflecting on their own individual experiences, comparing them with those of others, analyzing them and imagining more positive alternatives. In this way, they can make improvements in their own lives and in the lives of others. Again, to do this effectively, students must be trained to explore controversial issues, by making value judgments which can be substantiated with institutionally legitimate reasons. Teachers who have the knowledge
and skills to teach their students these skills have available to them a tool that will help students to evaluate and change their attitudes. Teachers also need skills in higher level thinking to accurately assess the attitudes, values and beliefs of their students so they can help them make positive changes in their lives.

While one of the main objectives of integrating ESL students into mainstream physical education classes is for them to learn English quickly, physical education teachers should be aware that there are times when the use of the students' native languages is appropriate. Using and valuing students' native languages appropriately is a fourth strategy teachers can use to help ESL students integrate into physical education classes more successfully. Teachers should always encourage the continued leaming of students' other languages because continued cognitive development in both languages promotes academic achievement (Danesi, 1988).

An example of when it.may be appropriate to use students' native languages in teaching physical education is when explaining safety or other crucial issues. When ESL students are first integrated into mainstream physical education courses, safety concerns are a big issue. Because some ESL students have very limited English comprehension skills and lack background knowledge in physical education, it is critical that they be given special instructions in order that accidents be avoided. One way of dealing with this problem is for other students, teachers or adult support workers to translate, or have important written material translated for them. Another way is by developing an orientation program for groups of new ESL students. During a one or two hour orientation course, students could be introduced to the gymnasium environment, equipment storage and care and general safety concerns. This orientation could include a tour, discussion, activities and a worksheet follow-up. Appendix G contains a sample outline for an orientation and a worksheet to accompany the orientation.

It is essential that teachers respect the linguistic, cultural, racial and religious diversity of their students. The inclusion of students' heritages (first languages and cultures) in the curriculum leads to greater school achievement (Ruiz,1989) and also to students feeling more highly valued. When teachers recognize, encourage and maintain students' cultural identities and first languages, students feel better about themselves and benefit culturally, academically and cognitively.

A fifth strategy teachers can use to help ESL students in physical education class is to encourage their involvement in extracurricular sport and exercise activities. Intramural and interschool sport and exercise programs offered in a school are an important part of the total education of all students. Those students involved in these programs build on the skills and knowledge developed in physical education classes and grow socially, physically, emotionally and cognitively. ESL students can receive these benefits and also experience learning in the areas of language and culture when participating in extracurricular events. Through participation in extracurricular sport and exercise programs, ESL students can develop English language proficiency, make friends, find other students with which to participate in sports, improve their psychomotor skills, become more competent in sports and feel better about their abilities. Also, their transition to life in a new country can be made much easier. Typically, however, because of their low status in school, their lack of English comprehension skills, their feelings of incompetence in sports and their lack of knowledge about activities that take place outside of classroom instruction, few new immigrant students join extracurricular sport or exercise activities. ESL and physical education teachers can help ESL students overcome these barriers by encouraging them to become involved and actively find or create opportunities for their inclusion. Practical ways of doing this are to develop a guide of extra-curricular activities with dates, sports and coaches names which teachers can review with their students; buddy ESL students with athletes to mentor them; provide strong role models (Talbot, 1993);
and open up facilities for young women to use during their breaks and after school (Scraton, 1993). Young women need space to develop confidence and interests when they are enrolled in mixed schools where males dominate.

A sixth strategy teachers can use to help female ESL students in physical education class is to focus on good teaching practices for girls. Often the physical education curriculum is structured to reward the highly skilled, white male, physical education students and does little to help female students who have poor skills and hold little status. Girls, who find physical education too physically demanding or who have real or perceived deficiencies in motor skills have specific needs that can be addressed in a number of ways. Following are a number of examples of teaching practices that specifically address the needs of these students, but at the same time meet the needs of all female physical education students. First, female students can be assisted in building collective support through cooperative and enjoyable physical activities such as dance, outdoor pursuits and self-defense as alternatives to competitive team sports. Students learn valuable lessons from both competitive and cooperative activities and should be exposed to both. Second, females should be educated to value physical movement, strength and endurance and enjoy their own bodies for intrinsic satisfaction. Young women feel tremendous pressures regarding body shape and appearance that need to be dealt with in non-destructive ways. Third, physical education programs need to be evaluated to determine whether they are appropriate for and are serving the needs of female students. Coeducational physical education programs need to be evaluated to determine whether they are providing female students with the space and encouragement they need to develop confidence and interest in sport and exercise programs. They should not be oppressing or subordinating young women but encouraging them to be assertive. Sex segregated programs need to be evaluated to determine whether both sexes are benefiting equally from the program. All programs should be geared at promoting confidence, health, fitness and assertiveness in young
women. Fourth, blatant racial and sexual conflicts that occur in school need to be addressed and dealt with in such a matter that students understand when their behavior is unacceptable. Teachers and school staff should show, by example, that anti-sexist and anti-racist practices are good practices. Fifth, teachers should be familiar with the literature on learning style and interaction style and develop a flexible teaching style that recognizes that students learn and interact in a variety of different ways. Sixth, it is imperative that physical education teachers have an awareness of their students' background experiences in physical education and participation in leisure time physical activities. This study clearly shows that with this information, teachers can better understand and meet the needs of their students.

New ESL students benefit greatly from support that meets both their academic and sociocultural learning integration needs because linguistic and sociocultural knowledge are most effectively learned together (Halliday, 1986, Ochs, 1988). When teaching English to ESL students, it is important for teachers to focus both on teaching the form of the language and the meaning the language holds in society. Students are then more likely to transfer their learning of English in school to social situations they become involved in. Physical education is a perfect place for ESL students to learn English and sport skills that can be transferred to participation in physical activity in students' social lives. The strategies identified above point out methods teachers can adopt to accomplish this goal.

Figure 5 provides a summary of major research findings, along with some teaching strategies that can be used to help female immigrant students integrate more successfully into physical education class.

PART 1


## PART 2

LANGUAGE TO EXPRESS ATTITUDE -limited lexicogrammatical resources -limited abilities to express adequate reasons for judgements of P.E.

| PARTICIPATION <br> RATES |
| :---: |
| $\uparrow$ as English proficiency $\uparrow$ <br> $\uparrow$ as time in Canada $\uparrow$ |


| LIMITED <br> BACKGROUND <br> EXPERIENCE |
| :--- | :--- |


| P.E. <br> - use knowledge framework <br> - build self-esteem <br> - build support among classmates <br> - evaluate P.E. programs <br> - address racist/sexist conflicts <br> - teach cooperative, enjoyable as well as competitive activities - understand and value students' backgrounds |  |
| :---: | :---: |
|  | $\xrightarrow{\text { TEACHING }}$ |
|  |  |


| $\quad$ E.S.L. |
| :--- |
| Explicitly teach language |
| and skills so students can |
| critically reflect and take |
| action. |
| 1. How can we find partners? |
| 2. How can we approach |
| teachers? |
| 3. How can we participate |
| in more physical |
| activities? |
| 4. How do we explore |
| controversial issues? |

Figure 5 - Summary of research findings

## Implications for Further Research

The present study was an attempt to begin to identify issues that are important to the successful integration of immigrant female students into physical education classes and into participation in extracurricular physical activities. It was initiated out of a concern that immigrant girls, especially those of color and with poor motor skills, be treated equitable, and be given opportunities to enjoy the benefits of good health and well-being that participation in regular physical activity brings. This topic should be of great interest to teachers and administrators of the Vancouver School District \#39 as presently a majority (53 percent) of its students are classified as ESL students and about half of these again are female immigrant students.

Since very little research has previously been completed in this area and there was little background knowledge for which to base this study, it is largely exploratory. There are, therefore, great opportunities to extend this study in a variety of ways. Research is needed to further explore the many issues brought up by this research project.

It should be noted that in further research, it is recommended that a larger sample size be used. Although 109 subjects were utilized for this study, some groups contained as few as seven subjects when the sample was broken down by religion or country. Valid conclusions or comparisons are difficult to make with such small groups. Larger numbers of females, from each country or religious group studied, need to be found for results to be useful if such comparisons are made.

Several suggestions of studies to extend the findings of this research follow. First, further studies into the background experiences of female immigrant students in physical education and their participation in physical activities would lead to a better understanding of the sporting experiences of females from diverse ethnic groups. By being more aware of minority groups and more informed by their experiences, teachers and curriculum developers may become more sensitive to their needs. Second, surveys
or observations of female immigrant students, who teachers identify as having successfully integrated into physical education classes or having successfully joined extracurricular sports or exercise programs soon after moving to Canada, could provide an understanding of the factors that are present when students succeed.

Third, female immigrant students' attitudes toward physical education class is a topic that requires much more in-depth research; the opportunities for expanding the results obtained in this study are numerous. For example, studies that compare immigrant girls' attitudes toward physical education to those of girls born in Canada would provide a better understanding of whether immigrant girls are in need of special support in physical education as this study concludes is the case. Also, studies that determine whether feelings toward physical education are related to factors such as low or high skill level, background experiences in physical education, cultural backgrounds, or years spent in Canada would be beneficial. In addition, further research is needed to determine whether attitudes toward physical education are closely linked to achievement in physical education.

Fourth, studies to compare new immigrant girls' participation rates in extracurricular physical activities to those of girls born in Canada, would provide a more accurate picture of how much support and encouragement immigrant girls need in order to become more involved. Further, studies on how participation rates of new immigrant students differ depending on cultural background, religious belief, number of years spent in Canada or proficiency in English, would extend and provide more support for the findings of this study. Another area, that is in great need of further research, is to examine the factors that are operating when female subjects participate in 'vigorous' exercise or exercise at a level likely to be beneficial to their cardiovascular health.

Fifth, qualitative studies that further identify the lexicogrammatical resources ESL students have to draw from to express affect and compare them to those of native English speakers would provide a more complete understanding of the gap between the
two populations. The main issues about physical education, on which recent immigrant ESL students make value judgments and support with good reasons, could also be compared to those that native English speakers identify.

Sixth, an implementation of some of the teaching strategies that this study concluded would assist immigrant females in successfully integrating into physical education class, along with a study to determine their effects, would provide teachers with some practical data to apply to their teaching situations. An example of this would be to train students to make value judgments backed up with institutionally legitimate reasons concerning issues in physical education and then determine whether they can apply these higher level thinking skills to their own personal situations.

Studies, of the nature mentioned above, would provide information for those wishing to improve or enhance physical education programs or extracurricular sport programs. At the same time, these studies would provide suggestions for the development of programs that may generate more positive attitudes toward physical education and higher rates of participation in physical activity by female immigrant students. Information on student attitudes toward physical education and extracurricular sport programs could be used for program development or revision. Identifying program content, that stimulates student interest in physical education, could lead to the development of programs that have a more positive effect on female immigrant students taking physical education. This information could also be used to enhance teaching, by examining effective teacher behaviours in teaching physical education to new immigrant students.

The goal of improving physical education class and extracurricular sport programs for female immigrant students, by evaluating them frequently, is a very worthwhile endeavour. Research and medical opinion have clearly shown the beneficial effects of exercise. Present programs may not be doing as well a job as they could with regards to promoting involvement in physical activity of immigrant females and these
students could have more positive feelings toward physical activity. One result of this situation is that an increasing number of these students are leading a sedentary lifestyle. This is costing our health care system and negatively affecting the quality of life of these individuals. Positive attitudes toward physical activity, and acceptable levels of participation in physical activities, need to be established during the years students spend at school so the present trend can be reversed. Students are then more likely to remain involved in some type of physical activity for the remainder of their lives. The intent of this study is to facilitate this process for female immigrant students so they have the opportunity for successful and full participation in physical education class and enjoy the benefits that an active lifestyle brings.

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# APPENDIX A 

Key Visuals

1. Types of Key Visuals
2. Key Visuals for Knowledge Structures

## Types of Key Visuals



1986 ESL Resource Book (Adapted), VSB

## Key Visuals for Knowledge Structures

| Classification | Principles | Evaluation |
| :--- | :--- | :---: |
| webs <br> trees <br> tables <br> graphs <br> databases | diagrams <br> graphs <br> tables <br> cycles | rating charts <br> grids <br> marks books |
| tables <br> diagrams <br> pictures <br> plans/drawings <br> maps | tables with numbered steps <br> flowcharts <br> cycles <br> time lines <br> action strips | decision trees <br> flow charts |
| Description | Sequence | Choice |

## APPENDIX B

## Language Related to the Knowledge Framework

## Samples of Language Related to the Knowledge Framework

| CLASSIFICATION/ CONCEPTS | PRINCIPLES | EVALUATION |
| :---: | :---: | :---: |
| Content vocabulary: generic nouns - animals, cars, trees <br> stative verbs - to be, to have, to belong, to remember, etc. <br> Structural Vocabulary: possessives - his, hers, theirs, its, etc. <br> species nouns - kinds, divisions, categories, classes, types, factors, attributes, characteristics, etc. <br> relative clauses - which, who, generally, usually, all, every, never, always, mostly, etc. | Structural Vocabulary: cause - is due to, the result of, in view of, hence, consequently, etc. condition \& contrast - if... then, unless, provided that, even if, etc. <br> scale of amount - all, every, always, none <br> prediction - most likely, probable results, forecast <br> logical probability modals would, could, might, etc. | describing emotions - like/dislike satisfactory/unsatisfactory <br> Evaluation Adjectives: good/bad, right/wrong viewpoint <br> Verbs of Volition: want, wish |
| Content Vocabulary: stative verbs - to be, to have, to see, to feel, believe, know, want, weigh, etc. <br> adjectives <br> Structural Vocabulary: <br> relative clauses - who, which <br> quantifiers - some, many <br> articles - the, a/an <br> prepositions of place - at, above, around, below, between, by, over, under, etc. <br> adverbs of comparison - similar to, different from, smaller than, faster than, almost the same as, etc. | active verbs - imperatives <br> Structural Vocabulary: <br> logical and chronological connectors - first of all, during, after, finally, next, earlier, later, before, initially, in the end, etc. <br> prepositions of space and time at, about, against, around, towards, on, over, between, by, etc. | Structural Vocabulary: modals - can, will, must, ought, should, would, may, in my opinion, I think that, I choose requests/offers - I can preferences - prefer, had rather |
| DESCRIPTION | SEQUENCE | CHOICE |

# APPENDIX C 

Parent Permission Letter for a survey of

FEMALE IMMIGRANT STUDENTS' FEELINGS ABOUT PHYSICAL EDUCATION AND PARTICIPATION IN PHYSICAL ACTIVITY

## THE UNIVERSITY OF BRITISH COLUMBIA

Department of Language Education 2125 Main Mall
Vancouver, B.C. Canada V6T 124
Tel: (604) 822-5788
Fax: (604) 822-3154
Courier Address:
2034 Lr. Mall Road
UBC, Vancouver, B.C. Canada V6T 1 Z2

## PARENT PERMISSION LETTER

## for a survey of

FEMALE IMMIGRANT STUDENTS' ATTITUDES TOWARD PHYSICAL EDUCATION AND PARTICIPATION IN PHYSICAL ACTIVITY.

## QUESTIONS WILL ADDRESS THE FOLLOWING TOPICS:

- attitudes toward Physical Education
- participation in physical activity
- cultural background
- years spent in Canada
- barriers and support for participation in physical activity
- feelings about coed Physical Education classes


## REASON FOR QUESTIONNAIRE:

Physical Education and English as a Second Language teachers want to help recent immigrants to Canada have more fun, learn more and feel better about themselves in Physical Education class. Your daughter can help teachers accomplish these goals by providing answers to this questionnaire. English as a Second Language and Physical Education teachers can use this important information to more successfully integrate immigrant female students into Physical Education classes.

## PROCEDURE:

All female immigrant students in your daughter's Physical Education class will be asked to fill out a simple questionnaire during one of their regular Physical Education classes. The questionnaire will take about 45 minutes to complete. The identity of the students will be kept confidential as the questionnaires will be filled out anonymously. Each student has the right to refuse to participate in this research or can withdraw at any time. This will not affect their mark in Physical Education class. Participation in this research is voluntary. Students who do not participate in this research will join other class members in regular physical activity.

## RESEARCHERS:

This research is being done by M. Schwab, a Vancouver Physical Education and English as a Second Language teacher at Killarney Secondary School as a fulfillment for a graduate thesis. Dr. M. Early, Dr. F. Echols, and Dr. B. Mohan, are the Faculty Advisors involved in this research. Any inquires about this study can be directed to M. Schwab at Killarney Secondary School (435-8121) or to Dr. M. Early at U.B.C. (822-5231).

Please complete the following:
$\qquad$ , participating in this study.
(name)
Date: $\qquad$ Signature: $\qquad$

# APPENDIX D 

## Student Questionnaire

FEMALE IMMIGRANT STUDENTS' FEELINGS ABOUT PHYSICAL EDUCATION AND PARTICIPATION IN PHYSICAL ACTIVITY

Department of Language Education<br>2125 Main Mall<br>Vancouver, B.C. Canada V6T 1 Z4<br>Tel: (604) 822-5788<br>Fax: (604) 822-3154<br>Courier Address:<br>2034 Lr. Mall Road<br>UBC, Vancouver, B.C. Canada V6T 1 Z2

## AN INTRODUCTION TO A SURVEY OF

## FEMALE IMMIGRANT STUDENTS' ATTITUDES TOWARD PHYSICAL EDUCATION AND PARTICIPATION IN PHYSICAL ACTIVITY.

## REASON FOR QUESTIONNAIRE:

Physical Education and English as a Second Language teachers want to help recent immigrants to Canada have more fun, learn more and feel better about themselves in Physical Education class. By providing answers to this questionnaire and sharing your feelings about Physical Education, you can help teachers accomplish these goals and plan programs which better meet the needs of immigrant students.

## YOU WILL BE ASKED QUESTIONS ON THESE TOPICS:

- attitudes toward Physical Education
- participation in physical activity
- cultural background
- number of years spent in Canada
- barriers and support for participation in physical activity
- feelings about coed Physical Education classes


## INSTRUCTIONS:

All female immigrant students in your Physical Education class will be asked to fill out this questionnaire. It will take about 45 minutes to complete. You will not be asked to put your name on the questionnaire. You have the right to refuse to complete this questionnaire or to withdraw at any time. You will not get a mark or grade for filling out this questionnaire. If you choose not complete the questionnaire, you will join the rest of your class. Completion of the questionnaire is taken as your permission to use the information for this research.

## RESEARCHERS:

- M. Schwab, a Vancouver P.E. and E.S.L. teacher at Killarney Secondary School
- Dr. M. Early, and Dr. B. Mohan, U.B.C. professors of English Language Education If you have any questions about this research, you can phone M. Schwab at Killarney Secondary School (435-8121) or Dr. M. Early at U.B.C. (822-5231).


## FEMALE IMMIGRANT STUDENTS＇FEELINGS ABOUT PHYSICAL EDUCATION AND PARTICIPATION IN PHYSICAL ACTIVITY

Physical Education（abbreviated as P．E．）is a class you take on a regular basis at school in which you are taught physical activities． Physical activity outside of P．E．is sport or exercise in which you choose to participate in your free time（ex．active games，sports，dance）．

A．INSTRUCTIONS：Please answer the following questions about P．E． classes you took before you moved to Canada．

1．Name the country you lived in before you moved to Canada．

2．Did you take P．E．classes at school before you moved to Canada？
［］yes
［］no（go to the next page）
3．In what grade did you first take P．E．？
［］K［］3［］6
［］ 1 ［］ 4 ［］ 7
［］2［］5［］8
［］other（identify） $\qquad$
4．For how many full years did you take P．E．

| ［］ 1 | ［］ 4 | ［］ 7 |
| :--- | :--- | :--- |
| ［］ 2 | ［］ 5 | ［］ 8 |
| ［］ 3 | ［］ 6 | ［］ 9 |
| ［］Other（identify） |  |  |

$\qquad$
5．About how many times did you have P．E．
［］ 1 ［］ 3 ［］5 in a week before you moved to Canada？
［］ 2 ［］ 4 ［］ 6 ［］other（identify） $\qquad$
6．About how long was each P．E．class？
［］ $1 / 2$ hour［］ $11 / 2$ hours
［］ $3 / 4$ hour［］ $13 / 4$ hours
［］ 1 hour［］ 2 hours
［］ $11 / 4$ hours
［］other（identify）

7．About how many students were in your P．E．［］ 20 ［］ 35 ［］ 50 class in the school you attended before you ［］ 25 ［］ 40 ［］ 55 moved to Canada．
［］ 30 ［］ 45 ［］ 60
［］other（identify） $\qquad$
8．Were the P．E．classes made up of：
B. INSTRUCTIONS: Please give the following information about your experiences participating in P.E. and physical activity.

1. I felt like this about taking P.E. in the country I lived before moving to Canada.

2. Most of the girls in the school in my last country felt like this about taking PE.

3. When'I first came to Canada, this is how I felt about taking P.E.

4. I feel like this about taking P.E. now.

5. Most of the girls in the school I now go to in Vancouver feel like this about taking P.E.

6. I like P.E. class in Canada:
[] much more than in the country I last lived.
[ ] a little more than in the country I last lived.
[] the same as in the country I last lived
[] a little less than in the country I last lived.
[] much less than in the country I last lived.
7. I think P.E. class is:
[] much more important than my other classes.
[ ] a little more important than my other classes.
[] the same importance as my other classes.
[] a little less important than my other classes.
[] much less important than my other classes.
8. If I had a choice, I would have taken P.E. this year.
[] yes
[] no
[] unsure
9. If I had a choice, I would take P.E. next year.
[] yes
[] no
[] unsure
10. My P.E. class this year is made up of:
[] only boys or only girls (same sex).
[] boys and girls (mixed in the same class).
[] both a and b .
11. If I had a choice, I would like this year's P.E. class to be made up of:
[] only boys or only girls (same sex)
[ ] boys and girls (mixed in the same class)
[] both $a$ and $b$
12. It is important for me to participate in regular physical activity in my free time (outside of P.E. class).
[] yes
[] no
13. During this school year, I have been a member of a sport or exercise team or club at school or in the community.

$$
\begin{aligned}
& \text { [] yes } \\
& \text { [] no }
\end{aligned}
$$

14. In a week (7 days), I now spend about this much time on sports and exercise outside of P.E. class.
[] none
[] 3-4 hours
[] less than 1 hour
[] 4-5 hours
[] 1-2 hours
[] 5-6 hours
[] 2-3 hours
[] more than 6 hours
15. Before I moved to Canada, I spent about this much time on sports and exercise outside of P.E. class.

| [] none | [] $3-4$ hours |
| :--- | :--- |
| [] less than 1 hour | [] $4-5$ hours |
| [] $1-2$ hours | [] $5-6$ hours |
| [] $2-3$ hours | [] more than 6 hours |

16. In a week ( 7 days), I now do the following kinds of exercise for more than 15 minutes during my free time about this many times. (Write the number on each line.)

## TIMES PER WEEK

a) HARD EXERCISE (HEART BEATS FAST)
(ex. running, hockey, football, soccer, basketball, cross country skiing, judo, roller blading, active swimming or biking)
b) . MODERATE EXERCISE (NOT TIRING) (ex. fast walking, baseball, tennis, easy biking, volleyball, badminton, easy swimming, alpine skiing, popular and folk dancing)
c) EASY EXERCISE (LITTLE EFFORT) (ex. yoga, archery, fishing, bowling, golf, snowmobiling, easy walking)
17. In my free time during a week (7 days) I NOW do regular physical activity long enough to work up a sweat (heart beats fast):
[] often.
[] sometimes
[] rarely/never
18. There are physical activities that I used to participate** in my last country but do not participate in now that I live in Canada.
[] yes
[] no
If yes, the reasons I do not participate** in these physical activities any more are: (Check as many reasons as apply)
[] no time
[] no money
[] facilities are too far away
[] poor facilities
[] family doesn't allow it
[] friends don't want to
[] no equipment
[] people treat me badly because I'm new to Canada
[ ] poor health/ injury
[] I am not good at sport/activities
[] no one to join/play with
[] no energy
[] sports I like are not offered
[] English language problem
[] loss of interest in activities
[ ] other (identify) $\qquad$
[] other (identify) $\qquad$
19. I want to participate** in more physical activities or spend more time on physical activity than I do now.
[] yes
[] no
If yes, the reasons I do not participate** in the physical activities I am interested in are:
[] no time
[] no money
[] facilities are too far away
[] poor facilities (ex. field, gym)
[] family doesn't allow it
[] friends don't want to
[] no equipment
[] people treat me badly because I'm new to Canada]
[] poor health/ injury
[] I am not good at sport/activities
[] no one to join/play with
[] no energy
[] sports I like are not offered
[] English language problem
[ ] other (identify) $\qquad$
[] other (identify) $\qquad$
**PARTICIPATE means to take part, join in or do something.
20. The following people want me to participate in physical activities (sport, exercise, etc.) outside of P.E. class in Canada. (You may check more than one.)

| [] parent | [] friend |
| :--- | :--- |
| [] brother/sister | [] coach/ sport instructor |
| [] other relative | [] religious leader (ex. priest, minister) |
| [] teacher | [] other (identify) |
|  | [] no one |

21. The following people do not want me to participate in physical activity (sport, exercise, etc.) outside of P.E. class in Canada. (You may check more than one.)

| [] parent [] friend <br> [] brother/sister [] coach/ sport instructor <br> [] other relative [] religious leader (ex. priest, minister) <br> [] teacher [] other (identify) |  |
| :--- | :--- |
|  | [] no one |

22. Here is a list of reasons people do physical activities in their free time. Check how important each of these is to you.

|  | very <br> important | important | not <br> important | not <br> important <br> at all |
| :--- | :--- | :--- | :--- | :--- |
| to meet new people |  |  |  |  |
| to be with my friends |  |  |  |  |
| to make my body look better |  |  |  |  |
| to make my health better |  |  |  |  |
| for excitement and danger |  |  |  |  |
| to make beautiful, graceful movements |  |  |  |  |
| to relax or reduce stress/ problems |  |  |  |  |
| to train and practice long and hard |  |  |  |  |
| others want me to participate |  |  |  |  |
| to learn new things |  |  |  |  |
| other (identify) |  |  |  |  |

C. INSTRUCTIONS: Please answer the following questions about yourself.

1. What grade are you in?
[] 8 [] 9 [] 10 [] 11 [] 12
2. What level ESL are you in?
[] I'm not in ESL
[] 1-beginner [] 3-advanced
[] 2 -intermediate [] transitional
[] other (identify) $\qquad$
3. How old are you?

## [] 13 [] 14 [] 15 [] 16 [] 17

 [] other (identify) $\qquad$4. How many full school years

| [] less than 1 | [] 3 | [] 6 |
| :--- | :--- | :--- |
| [] 1 | [] 4 | [] 7 |
| [] 2 | [] 5 | [] 8 |

5. What country were you born in?

| [] Canada | [] Taiwan | [] Korea | [] Hong Kong |
| :--- | :--- | :--- | :--- |
| [] Japan | [] India | []Vietnam | [] Philippines |
| [] China | [] Russia | [] USA | [] El Salvador |
| [] other (please list) |  |  |  |

6. Which language from the list below, do you most often speak at home?

| [] English [] Spanish [] Mandarin [] Cantonese |  |  |  |
| :--- | :--- | :--- | :--- |
| [] Tagalog | [] German | [] Korean | [] Japanese |
| [] French | [] Hindi | [] Punjabi | [] Vietnamese |
| [] Ukrainian | [] other (please list) |  |  |

7. To which of these cultural groups do you feel you belong?

| [] English | [] Chinese | [] Sikh | [] Latin American |
| :--- | :--- | :--- | :--- |
| [] Korean | [] French | [] Ukrainian | [] Vietnamese |
| [] Filipino | [] German | [] Hindu | [] Japanese |
| [] other (please list) |  |  |  |

8. To which of these religious groups do you feel you belong?

| [] Christian | [] Sikh | [] Hindu | [] Baha'i |
| :--- | :--- | :--- | :--- |
| [] Muslim | [] Buddhist | [] Jewish | [] none |
| [] other (please list) |  |  |  |

9. What mark did you get in P.E. on your
[] A []C+ []C- []E last report card (in Canada)?

## APPENDIX E

## Language Data Collected for Part Two of this Research

1. An example of a team word-web on physical education and physical activity.


## 2. Written responses to the question,

"What do you like about physical education class at Killarney?"

## Group A

-I hate P.E. class at all.
-essay to skip.
-don't have any homework.
-don't have to take it when grade 11.
-can stop thinking (use brian)
-don't have to talk.
-play balls, (some I like, some don't)
-It fun
-some time its difficult to play with boys together, but it is fun at all.
-Some time there is no team work, but it belong to the persons.

## Group B

I don't like physical education because it is too boring, not enough energy to do those exercises too much running. because we don't do the running so often, so we will very tire after running a few labs. We can't communicat with other regular students. We can't learn much from this course, that not useful in the future uses. Sometimes we can't understand what the teacher talks about, when the teacher is telling the class how to play the game.

## Group C

The students in the class are very open, funny and happy.

## Basketball

tennis
ice-skit
roller blading
Play many kinds of sports.

Many equipment are prepared.
GYMS ARE GOOD TO PLAY.
Watching TV and video is useful.

## Group D

-started good relationship with opposite sex. (Grade 11)
-more free time than home country.
-more different exercise for us.
-the Gym is big have many equipment
-The teacher will be nice to play with us.
-The teacher teach us patiently.

## Written responses to the question,

"What do you dislike about physical education class at Killarney?"

## Group A

-bad equipment
-make me tired
-not enough time to get change
-hard to get hard mark.
-6 lap run is too long.
-We need to run outside even rainning day.
-if I can't do some activities and I'd already tried my best, the teacher still really angry at me.
-really essay to be late because we just have 3-4 minutes to get change.
-if I forget to bring P.E. strip we need to do Cafe duty.
-if we late, we need to loss 5 marks, but it is really essay to be late.

## Group B

-6 laps $\Rightarrow$ so tired
-some activities $\Rightarrow$ volleyball
-language problems
-test
-devided into 2 groups $\Rightarrow$ ESL students
$\Rightarrow$ regular students
-not easy communited with others
-ignore ESL students, sometimes

## Group C

1. Six Labs
2. Milk run
3. School dancing
4. swimming
5. guidance

Test is too boring and difficult.
You must obey many rules.
Many kinds of activities are too boring and hard to do.

## Group D

We dislike If boys and girls playing together like example boys and girls play in a one Gym. Some students have no friend in P.E. Sometime we need partner. The teacher might not decide it for you. I think it's duty that the decide already gave you partner. Sometime some students are not find a partner and then they feel sad. So teacher have to decide a partner. We cannot decide what kind physical activities we'd like to learn.
3. Written responses to the question, "How are P.E. classes at Killarney similar and different from P.E. classes in your native country?"

SIMILARITIES
Group A Korea, India, Afghanistan
Many kinds of activities are similar with Korea, India; and Afghaniston. to have tests (Korea, India, Afghaniston).

## Group B Taiwan

| Students must take P.E. before Grade 11. |
| :--- |
| The chance to exercise and learn physical activities. |
| Playing together in group. |
| Some course are the same. eg. volleyball, basketball, etc. |
| Some tests are the same. eg. push-up, curl-up |
| To change P.E. dress before the class. |
| Girls play with girls; boys play boys |
| To get the equipment from the specific room |
| one hour each time. |
| No homework, have tests. |
| Students are marked each term. |

Group C Hong Kong

| We both have basketball |
| :--- |
| We both have volleyball |
| We both have baseball |
| We both have Gymatic |
| We both have running (but just half lap) |
| We both need to change |
| We both have fitness text |
| We both have sport day |

Group D Hong Kong

| The time of the class almost the same. |
| :--- |
| basketball |
| Volleyball |
| also need to change the clothes |
| Before Grade 11, also need to seperate |
| also around 40 students in the class. |
| Help your relationship to good with classmates. |

## DIFFERENCES

Group A

| Vancouver | My Country (India, Korea, Afghanistan) |
| :---: | :---: |
| together with boys | only girls (India, Afghanistan) |
| different and boring | exciting (Korea) |
| here not (sometimes) | choos what to do |
| together | by them selves only girls (korea) |
| supply more equipment | We have to bring some equipment (Korea) |
| There are a ice rink and a swimming poor | not Korea |
| When your grade 11 its your choise | in India, some thing |
| When your grade 11 its your choise | but in Korea, it is your duty |
| Uniuforms X | O-Korea <br> -Afghanistan |
| More equipment | in Afshaniustan not |
| Text books X | O- Indian (6-9) grade <br> - Korea <br> - Afghanistan |
| X | final Exam O |

Group B

| Vancouver | Taiwan |
| :--- | :--- |
| just play balls or sports. | study other subjects in P.E. class. |
| a lot of team work. | play by themself, usually, |
| students in Vancouver like P.E. and <br> enjoin it. | students in Taiwan think that P.E. is <br> not important courses. |
| play a lot of games | Practice in sports. |
| Ice skating + rolling skating | play balls, no skating |
| guidance | no guidance |
| swimming | schools no big space to build <br> swimming pool |
| 6 laps | no 6 laps |
| no P.E. when grade 11 | have to have P.E. until unvirsity |
| every one has ball | share ball (1 ball per 5 people) |
| more than 20 students in P.E. class | more than 50 students in P.E. class |
| 3 classes per week. | 4 classes per class. |

## Group C

Vancouver Hong Kong

| have swimming class | no swimming class |
| :--- | :--- |
| have ice skat class | no ice skat class |
|  | no roller |
| old + bad equipment | good equipment |
| sad | happy |
| some teacher is bad | all teacher are good |
| more space | No enough |
| have 6 laps (very sad, tired) | no 6 laps (very happy) |
| 65 minutes class | 35 minutes class |
| hard to get hard mark | esay to get hard mark |
| less classes | have more class |
| hard activities | essay activities |


| have hockey | no hockey |
| :--- | :--- |
| need to run 6 laps even if it is heavy <br> rain. | don't have to take P.E. if it is <br> rainning. |
| have written text (bad) | no written text (good) |

Group D

| Vancouver | Hong Kong |
| :--- | :--- |
| six laps | raining no outside |
| rainning also need outside | not too freely |
| more freely | if outside cold, we never have to run. |
| outside cold, we still need to run | no ice-skate |
| no table tennis | no writing test |
| many writing test | need to wear uniform |
| wear whatever you want | sport day is more fun. |
| sport day not for whole school | teacher is more kind |
| do not understand what does the |  |
| teacher say. | no square dance. |
| square dance two weeks |  |

## 3. Transcription of student's oral presentations of similarities and differences in

 physical education class in Vancouver compared to their native countries.
## Group A

1: You're from India and you're from Afghanistan, right?
2: Yah
3: But she speaks Hindi and I speak Hindi.
1: Let's talk.
2: You have there P.E.?
3: $\quad Y a$
2: And where do you come from?
4: Korea.
1: We can choose what to do.
2: Choose themselves - what sport?
1: Choose what to do by themselves. This is Korea.
2: Are you together with boys, girls together?
1: Only girls. Supplies, more equipment - like badminton racquets - but we have to bring it in Korea.
4: And in Korea, there aren't swimming pool and hockey place in school so we have to go the other place to play swimming or hockey. Like that.
1: How about India, same?
3: Choice
1: Just choice?
3: $\quad$ Ya, if we want to play.
1: Ohhh, in Korea we have to do.
4: And in Vancouver you can take P.E. class if you want to play I mean, since 11 grade, after 11 grade.
1: In Killarney.
4: Yes, but it's our duty to take P.E.
2: And when you are in grade 9 or grade 8 you have to take here in Killarney P.E. You have to take?
4: You mean in Killarney?
2: Yah, in Killarney.
4: I think 8-10.
1: And we better put down here about India.
3: India, only one grade, only 10 . Up to your choice.
1: In Korea we have to wear a uniform.
2: In Afghanistan too.
1: How do you spell Afghanistan?
2: $\quad A-f-g-h-a-n-i-s-t-a-n$.
1: How about India about uniform.
3: No.
1: No?

3: Yes.
4: Many kinds of activities are similar with Korea; almost similar.
1: And pushups and situps are different with Korea
2: Ya, you can write it.
4: Other different tests. In Canada, in Canada, we don't have to use our arms. In Korea we use our arms in front of head.

## Group B

1: $\quad$ Different - sometimes teacher like to use P.E. class to give us the test, like the socials test.
2: We can study other subjects.
3: P.E. is not important.
1: We don't have to take P.E. in grade 11 here.
4: It gives us a chance to exercise.
1: Do you think this is alike?
4: Yes. It gives us a chance to exercise.
3: What do you mean?
4: (Chinese)
2: In Vancouver, students play a lot of games and in Taiwan, they just practice.
4: What do you mean in Taiwan we just practice?
3: They both have the same sport, right?
2: Like in Taiwan, we have running and here we have running. In Taiwan we have asketball and here we also have basketball.
4: Sure, some schools is the same.
1: Example, volleyball
3: How to spell volleyball?
4: $\quad v-o-l-l-e-y-b-a-l-l$
2: $\quad$ Skating
3/4: $\quad \mathrm{S}-\mathrm{k}-\mathrm{a}-\mathrm{t}-\mathrm{i}-\mathrm{n}-\mathrm{g}$
1: No, swimming.
4: We don't have a swimming pool. We don't have to pay money for P.E. class.
1: We have a lake near our school.
4: Teachers are very kind. Teachers are very poor. We must run first before we play sports.
3: How to spell guidance?
2: How to spell guidance?
1: $\quad \mathrm{G}-\mathrm{u}-\mathrm{i}-\mathrm{d}-\mathrm{a}-\mathrm{n}-\mathrm{c}-\mathrm{e}$ (after a lot of time taken looking it up)
4: Change clothes.
3/2/1: Ya, ya, ya
1: You?
2: We don't have to change; we just wear P.E. clothes.
4: Have girls go to P.E. not with boys.
Girls go to girl's class, not with boys.
3: Girls play with girls, boys play with boys.

1: How many students in the P.E. class in Taiwan?
2: $\quad 50$
4: $\quad 40$
2: $\quad 50$
4: $\quad 40$
1: More than 50.
3: How about in Vancouver?
4: One hour a class. One hour is the same.
3: Teachers also joins students to play a game.
4: You can do your homework.
2: What homework?
4: (Chinese)
Group C - most talking is in Cantonese, only phrases of English here and there
1: no skating
2: bad equipment
3: happy faces
4: sad
1: more place for
2: baseball
1: very happy...ha, ha, ha...Vancouver
2: no six lap
3: more tired
2: more space
3: more classes
4: $\quad \mathrm{P}-\mathrm{h}-\mathrm{o}-\mathrm{e}-\mathrm{b}-\mathrm{e}$
2: old teachers
1: easy activity
3: hard to speak
1: Hong Kong is better than Canada
4: basketball, volleyball
3: hockey
2: gymnastic
4: $\quad 6$ laps
1: don't need to take P.E. if it is raining

## Group D - almost the entire dialogue is in Cantonese

```
1: different, Canada, }6\mathrm{ lap run, }1\mathrm{ lap Hong Kong
2: 6lap
3: l-o-p, l-a-p
4: basketball
3: rollerskating, easy to skate
2: table tennis
5: ice skating
3: haven't got enough time to change
4: need to separate
5: how to spell?
2: s-e-p-e-r-a-t-e
4: around 40 students in the class
1: no square dance
2: no square dance
3: d-a-n-c-e
```

4. Transcription of student's oral presentations of what they like and do not like about physical education class at Killarney Secondary School.

## Group A

1: Our first question I have the answer. I like P.E. here because we do more things and it is fun but in my country we just do P.E. in the classroom. I mean we just learn how to play volleyball and basketball and another things then we write the test. Just sometime we have to play outside basketball or something.

2: I will talk about - I like P.E. in Killarney because many equipments are prepared for playing anything and there are swimming pool and ice rink in school but I don't like P.E. about many kinds of activities are too boring and difficult to do and this is just my opinion. I want to choice something that I have P.E. class or not in all grades. We can choose grade 11 and 12 about having P.E. class or not but I want to choose that in all grades.
3.: I can play with students who came from many countries and I don't need to bring equipment like raquets. I can learn how to skate in the school in the winter and sometimes I don't understand what my teacher says so I sometimes have trouble. I have to run 6 laps. It's too hard for me.

4: I like to play one game per month and then we change and start another game to play. I like this. In my country we play only two or three games all year. I like to play basketball in this year. There you have to play everytime but in my country some students choose. From that day we play other things like singing songs, playing other very easy things.

## Group B

1: I like group sports most because in our country schools doesn't think that P.E. is important so some people they don't like to play. They can just sit here and talking but P.E. class here everyone must join the game so it is more fun and everyone has wish to join it.

2: I like to play badminton in P.E. class. It is because there are many big areas in Killarney so I have a bigger room to play badminton. I don't like 6 laps. It's because I feel very, very terrible after I run.

3: I like the Guidance at Killarney because I don't have to do anything in that class and I can finish my homework. I don't like teamwork. Some of the ESL students might be alone. They can't get partners.

4: I like more here is we don't have to take P.E. after grade 10. Gym is larger and the equipment is better and the course is various and you can try many different kinds of physical activities. I like that boys and girls will play together in grade

11 and the teacher may not make group for you and P.E. is not an important subject in Taiwan. I don't like that girls and boys play together in grade 11 and there are too many hours of P.E. a week.

5: I don't like test because test in P.E. is too diffucult and so many rules we must remember but in our country schools don't care about P.E. We just need to study a little and simple things about P.E. You always can get a good grade on a test.

## Group C

2: What part of P.E. class at Killarney do you like more than P.E. class in the country you lived in before?

1: Everything is better than here.
2: Everything is so hard to do in Vancouver.
3: Everything is better than here.
4: In Hong Kong is better except sometimes have ice skating is good
2: What part of P.E. class at Killarney do you like less than P.E. class in the country you lived in before?

4: Hong Kong is better than Vancouver like we don't have to run 6 laps and we have to do less things.

2: I can't tell the exactly answer because too many,
1 : like running 6 laps
2: ya, like running 6 laps here but in Hong Kong we just need to run $1 / 2$ lap, so we feel so tired.

3: The P.E. teacher in Canada is better than in Hong Kong because they are nice.
4: In Hong Kong we don't need to run 6 laps and every class only have $1 / 2$ hours.

## Group D

1: I like ice skating because in Hong Kong there is no this activity in P.E. I don't like six laps because it is too hard for me to run. I don't like square dance because I don't like dancing.

2: I like skating because in Hong Kong we haven't got it. 6 laps too hard to run; swimmig not enough time to change; square dance, waste time.

3: The classmates will enjoyed than my country. The teacher will be nice to play with us.

4: Ice skate because we didn't have in Hong Kong; roller blade because we don't have in Hong Kong; bowling because we don't have in Hong Kong; 6 lap because too hard to run; most of the exercise is too hard to do.

5: I like ice skate because Hong Kong didn't have ice rink in the school. I dislike football because it is too hard to do and 6 laps too.

## 5. Transcription of students' oral presentations of a guided solving of a problem

 they have encountered in physical education class.
## Example A

1: The problem that we are having is it's hard to get a partner in P.E.
2: Regular students doesn't like you because we don't do the exercise well.
1: And we can't communicate with regular partners.
2: List the possible solutions together. We can have all ESL student of the same grades in one classes.

1: Or study more English.
2: Or practice sports at home.
1: Or join clubs to get in shape.

2: What are the advantage and disadvantage of each one? Advantage is we can communicate and have friends. Disadvantage is we don't have enough student of the same grade.

1: \#2, the advantage is study more English can help us communicate with others. The disadvantage is we don't speak English well and that's why we are in ESL classes.

2: \#3, advantage is practice sports at home can get higher mark. Disadvantage is we don't have a spare time at home.

1: \#4, the advantage is join clubs to get in shape. Disadvantage is we can't communicate with other people.

2: Do the one most acceptable to everyone. The number is \#1, we can have all ESL students of the same grade in one classes.

## Example B

1: Don't like to combined together with the boys. The boys will do all the exercise.

2: Solve the problem, told the teacher. 2, try to play with the boy. 3, told the boy how we feel. 4, don't mind of that, try to accept them.

1: The teacher should know your feeling. The teacher may not to do that.
2: Maybe we can play together. The boy may make us feeling sad.
1: They may learn how we feel. They may make angry.
2: Maybe we can play together happy. They will not change.
1: I will try to play with the boy is better way to solve. We don't like playing with the boys.

## Example C

1: I can't understand difficult words about P.E. sometimes. We can have questions for teachers about difficult words. List all possible solutions together. \#1, joining school sport club. It will be exciting but we can have language problem.

2: Making new friends in P.E. class. It is, I think, fun. I have some, then, language problems. Be active, do something for your health.

1: I think we should try to have fun in P.E. class. That will be very good and we think do the most acceptable to everyone is try to have fun in P.E. class. If we try to have fun in P.E. class, we can have friends and we can have a very fun P.E. class. Are you agree?

2: Yup.

## Example D

1: State the problem as you see it. Hard to get high mark.
2: I agree with person 1.
1: List the possible solution together. \#1, study hard.
2: Be sick when the class had test.
1: 3 , do more sport at home.
2: $\quad 4$, try to do better in the class. What are the advantage and disadvantage of each one? \#1, advantage, can improve the English ability. Disadvantage, takes time, effort and energy.

1: \#2, be sick when class had test. Advantage, we don't need to join the test. Disadvantage, we lose marks.

2: \#3, advantage, our health will improve. Disadvantage, tired, takes time.
1: \#4, try to do better in the class. Advantage, learn more sport skills. Disadvantage, difficult, takes time.

2: Do the one most acceptable to everyone: \#4, try to do better in the class.

## Example E

1: It is hard to find a partner.
2: Sometimes it is hard to have a partner especially regular students.
3: It is difficult to find a partner in teamwork playing.
1: To try to have a talk with classmates.
2: We have to participate in playing by ourselves.
3: To think that we can do our best in every place.
2: \#1 advantage, we can improve our English ability.
3: Sometimes we feel ignored.
1: \#2 advantage, we can make friends with our classmates.
2: Disadvantage, we don't know how to play things like games so we can feel difficult.

3: \#3, we can have self confidence. Disadvantage, sometimes we think it and don't perform.

2: \#4, advantage, we can get good marks.
3: Eventhough we do our best, we can get bad marks, therefore we can feel disappointed about ourselves.

1: Do the one most acceptable to everyone. We have to try to have a talk with classmates.

## 6. Transcription of student oral answers to the question:

What could your physical education or ESL teachers do to help you and other ESL students feel comfortable in and learn more from physical education class?

Give the ESL students the chance to speak. The teachers should give attention to the students who came from same country. They shouldn't speak their language. When there is a new student, the teacher should introduce her or she or he to the whole class. When there is a new student, she or he must have also the chance to choose people in her or his team when they are playing games.

Make two class, regular P.E. class and ESL P.E. class. Try to speak easy English, correct pronunciation. louder. P.E. teachers make us swim or something like that. But we want to choose if we swim or not. We want to choose what to do in P.E. class sometimes. In my home country, we could choose what to do in P.E. class sometimes. So we can have fun and enjoy in P.E. class. Six laps is too hard. How about 4 laps or 3 laps?

The teacher have speak easy to understand English and speak more times. The teacher forgive us can't accept new education.

I think it had racism that some regular students make me feel so sadly. Not to do some very hard exercises.

Maybe the ESL can try to make up a new P.E. class for only ESL students. We can find a partner easier when we need to. And give us the easier written test. They also should give us less running because we don't run so often. We must feel sick or very tired after that.

The school can have the ESL P.E. class for the new coming ESL students. So the newcomer will know what's the P.E. in Canada and they will fit well in the first year.

The P.E. or ESL teachers help us learn more English and P.E. teacher help us learn more sports. The ESL teacher can help us quickly to go to regular class and ESL teacher help us we can communicate with regular people.

When we meet the difficult English work, can ask teachers to explain to us. Teachers can let us do more group works. Teachers speaking speed should slowly. Teachers can reduce the exam times. Explain the rules carefully. Sometime do interesting game.

Sometimes P.E. teacher says you go to this team then I feel comfortable. I learn many things in P.E. class from teachers and when we are talking with new people students, we learn more things. Sometime ESL teacher make a fun and they were talking with students very nice and joking with them, then student feel very good and comfortable and they like the teachers if their behavior like this.

They could print letters and write sentences to read easily on the paper that has information about several sports like tennis. They could try to know who are ESL students. They could speak a little more slowly.

The teacher should talk to the classmates what they feel and teach them more because some of the sport they didn't know in our country like baseball. The teacher should talk more slowly and clearly. Give us more time to change and let us go after the warning bell. Don't force us to run 6 laps.

Explain the rules more slowly especially for ESL students. Decide a partner for you when you can't find a partner. Separate students who can do very well in P.E. and students who have difficulties to do well in P.E. Try to care about your feelings more often. Do not force you to do things that you can't do.

## APPENDIX F

## Physical Fitness Unit designed using the Knowledge Framework

UNIT SUMMARY:

| LESSON \#1 <br> INTRODUCTION <br> What is Fitness? <br> Film | LESSON \#2 <br> THE HEALTH RELATED <br> COMPONENTS OF FITNESS <br> -define them <br> -testing | LESSON \#3 <br> THE SKILL RELATED COMPONENTS OF FITNESS <br> -define them <br> -testing |
| :---: | :---: | :---: |
| LESSON \#4 <br> LIFETIME <br> ACTIVITIES <br> Assignment - <br> choosing a <br> lifetime activity <br> Dance: activity | LESSON \#5 <br> WEIGHT TRAINING <br> -theory <br> -weight training activity | ```LESSON #6 CIRCUIT TRAINING -theory -circuit training activity``` |
| ```LESSON #7 AEROBICS - THEORY -slide show -warm up, CV, cool down``` | ```LESSON #8 AEROBICS - PRACTICAL -fitness class -evaluate class``` | LESSON \#9 <br> NUTRITION \& EXERCISE <br> -assess knowledge <br> -filmstrip \& worksheet |
| LESSON \#10 <br>  <br> EXERCISE <br> -lecture <br> -discuss eating <br> -quiz | ```LESSON #11 STRESS -lecture (stress + exercise) -film -relieving shess``` | LESSON \#12 <br> EXAM ON UNIT |

## BACKGROUND KNOWLEDGETHEORETICAL

## CONTENT:

List the safety measures that need to be followed when weight lifting.
Describe components of circuit training.
Describe 6 nutrients.
Describe how stress affects the body.
Compare/contrast benefits of dance, aerobics, circuit training and weight training.

## IANGUAGE:

The safety measures are.....
The nutrients are.....
are similar to.....
.....are different from.....
The affects of stress
are.....
The components of an aerobics class/circuit training are.....

## CONTENT:

Define physical fitness Define the 5 health and 6 skill related parts of fitness.
Classify sports into the parts of fitness they develop.
Define important terms used in weight training: overload principle, set, repetition, all or non principle, progression, specificity, isotonic. Define parts of aerobics: warm up, cardiovasular, cool down.
Define stress, nutrition. Define circuit training.

LANGUAGE:
.....is made up of.....
......is.....
.....fits into the category of
.....belongs to.....
The meaning of.....is
......is part of.....
.....is a type of.....

## classification

|  |  |
| :---: | :---: |
| Sequence | Principles |


| CONTENT : | CONTENT:* |
| :---: | :---: |
| Choose suitable lifetime | Assess your physical |
| activities. | fitness.. |
| Choose a sport and a series | Evaluate your attitude |
| of exercises for training | toward physical activity. |
| that would benefit an athlete | Evaluate the fitness |
| playing that sport. | values of the following 4 activities a) dance |
|  | b) aerobics c) circuit |
|  | training d) weight |
|  | training. |
|  | Analyze an aerobics class |
|  | for its content value. Analyze your eating |
|  | eating habits. |
| LANGUAGE: | LANGUAGE: |
| I think that.....is a | I like/dislike. |
| suitable | .....is good/bad. |
| lifetime activity. | . . . . is |
| I choose..... | satisfactory/unsatisfacto |
| In my opinion. |  |
| I prefer..... | I wish that. |
| I would use.....exercises for |  |
| . . . .sport. |  |

SUBJECT AREA: Girl's P.E. 9

## UNIT:

OBJECTIVES: $1 . \quad$ The student will adopt a positive attitude towards developing her physical fitness level.
2. The student will demonstrate methods of achieving a high level of physical fitness.
3. The student will understand concepts and methods necessary to achieve a high level of physical fitness.
4. The student will be able to assess her own physical fitness.

## ILANGUAGE SKILLS:

a) KNOWLEDGE STRUCTURES - description, sequence, choice, classification, principles, evaluation.
b) VOCABULARY -

1. CONTENT VOCABULARY - NOUNS
physical
health, attitude, skill, strength, endurance, skinfold, coordination, speed, cool down, weight, evaluation, overload, repetition, progression, chest press, pulley chins, dipping, hip flexors, circuit, nutrients, minerals, calories, vitamins,

| fitness, | activity, |
| :--- | :--- |
| stress, | well-being, |
| competition, | benefits, |
| attitudes, | pulse rate, |
| flexibility, | cardiovascular, |
| muscular, | body fatness, |
| agility, | balance, |
| power, | reaction time, |
| aerobics, | warm-up, |
| energy, | variety, |
| relaxation, | confidence, |
| jazz dance, | lifetime, |
| set, | weight training, |
| all or none principle |  |
| specificity, | isotonic, |
| leg press, | shoulder press, |
| toe raises, | arm curl, |
| leg curls, | tri extensions, |
| starting, load, | legextensions, |
| target time, | Canada Food Guide, |
| servings, | carbohydrates, |
| $n u t r i t i o n, ~$ | balanced diet, |
| $k i l o j o u l e s, ~$ | obesity, |
| minerals. |  |

2. CONTENT VOCABULARY - VERBS

| select, | repeat, | decrease, |
| :--- | :--- | :--- |
| reduce, | choose, | decide, |
| increase, | eat, | exercise, |
| prevent, | benefit, | try, |
| list, | compare, | want, |
| be fit, | look, | have, |
| feel, | plan, | compare, |
| do, | rerk, | take,, |
| participate, | relax, | like, |
| give, | function, | order, |
| meet, | socialize, | test, |
| improve, | tone, | define, |
| record, | face, | lower, |

## 3. STRUCTURAL LANGUAGE

|  | at, beyond, toward, next, to, over, by, around, up, down, between, behind, on. |
| :---: | :---: |
| adj./adv.- | good, well, best, better, general, regularly, least, important, now, hard, extra, efficiently, transitory, continuously, individually, strong, weak, thin, fat, optimal, less, more, fewer, enjoyable, great, free, whole, right, wrong, other, capable, positive, negative, fast, greater, lower, higher, quickly, slowly, bad. |
| relative- <br> clauses | where, what, who, which |
| cause- | the result of, is due to |
| condition- | if...then, even if, unless, provided that |
| prediction- | probable results, most likely |
| connectors- | first, during, after, next, before, in the end, when |
| describingemotions | like, dislike, satisfactory, unsatisfactory, sad, happy, angry |
| preferences- | I would rather, I prefer |
| modals- | must, will, can, should, may |

## THINKING SKILLS:

| 1. | describing |
| :--- | :--- |
| 2. | comparing |
| 3. | defining |
| 4. | classifying |
| 5. | sequencing |
| 6. | explaining |
| 7. | predicting |
| 8. | making decisions |
| 9. | evaluating |
| 10. | judging |

## KEY VISUALS:

1. Attitudes towards physical activity.
2. Parts of physical fitness.
3. Measurements of physical fitness.
4. Chart to evaluate fitness.
5. Skill/health related benefits of sports and other activities.
6. Weight training chart.
7. Circuit levels and layout.
8. Circuit training record sheet.
9. Canada Food Guide.
10. Principles of warm up, cardiovascular and cool down in aerobics.

Classification
Principles
Evaluation
Evaluation
Classification
Sequence
Sequence
Sequence
Classification
Principles
11. Outline of a 60 minute aerobic class.
12. Evaluation of 4 fitness activities.

Sequence
13. Nutrients

Choice
14. Activities and calories burned up.
15. The human body under stress and during exercise.

Classification
Classification
Principles

## ACTIVITIES:

1. Define physical fitness.
2. Evaluate feelings towards physical activity.
3. Define health and skill related parts of fitness.
4. Evaluate own physical fitness.
5. Choose appropriate lifetime activities.
6. Perform various jazz dance moves, aerobic exercises, weight training activities and circuit training activities.
7. Explain principles important to weight and circuit training and aerobics.
8. List safety measures of weight training.
9. Evaluate content of an aerobics class.
10. Describe 6 nutrients.
11. Analyze own eating habits.
12. Describe effects of stress on body.
13. Explain the relation between stress, exercise and health.

## EVALUATION:

1. Final exam and nutrition quiz. $25 \%$
2. Notebook work. 25\%
3. Assignment on lifetime activities. . 15\%
4. Attendance, participation, effort. $20 \%$
5. Fitness testing. 15\%

## Key Uisual \#1 - SEQUENCE

## CITCUIT TRAINING - LEVELS AND IAYOUT

Students GO THROUGH CIRCUIT 2x.

- Studends are timed.

NAME:
BLOCK: $\qquad$

|  | LEVEL 3 | LEVEL 2 | LEVEL 1 |
| :---: | :---: | :---: | :---: |
| SQUAT THRUSTS | 5 | 8 | 10 |
| SHUTTLE RUN | $4 \times 10 \mathrm{~m}$ | $6 \times 10 \mathrm{~m}$ | $8 \times 10 \mathrm{~m}$ |
| HANG ON BAR, BRING KNEES TO CHEST | 5 | 8 | 10 |
| BENCH HOPS | 7 x | 10x | 13x |
| PUSH UPS | 5 | 8 | 10 |
| CRAB WALK TO WEIGHT ROOM |  |  |  |
| LEG EXTENSION | 5x | 7x | 10 x |
| ARM CURLS | 5x | 7x | 10x |
| SIT UPS | 6 | 9 | 12 |
| STAIR RUNNING | 2x | 3x | 4 x |
| TRI EXTENSION | 5 x | 7x | 10 x |
| LEG PRESS | 5x | 7 x | 10x |
| CHEST PRESS | 5x | 7x | 10x |
| ROPE JUMP ING | 20 | 30 | 40 |



NAME:
BLOCK : $\qquad$

| EXERCISE | $\begin{gathered} 1 \frac{1}{M} \frac{1}{M} . \\ \text { MAX.REPS } \end{gathered}$ | $\begin{aligned} & \quad \frac{2}{\text { STARTING }} \\ & \quad \text { LOAD } \\ & \text { TRAINING } \\ & \text { DOSE \#1 } \end{aligned}$ | TIME ON FIRST TRIAI | $\begin{gathered} \text { 2ND } \\ \text { TRIAL } \end{gathered}$ | $\begin{gathered} 3 \mathrm{RD} \\ \text { TRIAL } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SQUAT THRUSTS |  |  |  |  |  |
| SHUTTLE RUN |  |  |  |  |  |
| HANG ON BAR, BRING KNEES TO CHEST |  |  |  |  |  |
| BENCH HOPS |  |  |  |  |  |
| PUSH UPS |  |  |  |  |  |
| CRAB WALK TO WEIGHT ROOM |  |  |  |  |  |
| LEG EXTENSION |  |  |  |  |  |
| ARM CURLS |  |  |  |  |  |
| SIT UPS |  |  |  |  |  |
| STAIR RUNNING |  |  |  |  |  |
| TRI EXTENSION |  |  |  |  |  |
| LEG PRESS |  |  |  |  |  |
| CHEST PRESS |  |  |  |  |  |
| ROPE JUMPING |  |  |  |  |  |

3. TOTAL TIME FOR 2 X AROUND CIRCUIT 4. TARGET TIME $\qquad$

## TEST \& RETEST METHOD

STEPS 1. Initial test - do as many repetitions as you can in 1 minute at each station.
2. Reduce scores obtained at each station to $2 / 3$ of the total for a 2 lap circuit (to $1 / 2$ for a 3 lap circuit) to arrive at starting load.
3. Next day go through circuit 2 X doing the number of repetitions in starting load for each station - record total time it takes.
4. Your target (goal) time is calculated by reducing total time by $1 / 4$ if you are in good shape and by $1 / 3$ if in poor shape (as you would be expected to improve more).
5. When reach target time start at step 1 and repeat whole process.

## Cboice

## Key Visual \#/2

## EVALUATION OF FITNESS ACTIVITIES

|  | DANCE | WEIGHT TRAINING | CIRCUIT TRAINING | AEROBICS |
| :---: | :---: | :---: | :---: | :---: |
| 1. Place these activities in order of preference. (1 - like most; 4 like least) |  |  |  |  |
| 2. Which parts of fitness do these activities develop? |  |  |  |  |
| 3. Which parts of fitness do these activities not develop? |  |  |  |  |
| 4. Which of these would be suitable lifetime activities for you? |  |  |  |  |

## Hey Uisual \#15 Principles

THE HUMAN BODY


# APPENDIX G 

## Physical Education Orientation and Worksheet for ESL Students

## PHYSICAL EDUCATION ORIENTATION FOR ESL STUDENTS

1. Introduction: a) importance of participation
b) importance of safety
2. Strip: a) shorts/ sweats

T-shirt
socks
runners
sweatshirt
extra clothes if it is raining
towel and soap
b) footwear for gym floor
3. Areas in the gym: balcony
offices
equipment rooms
gyms
changing rooms
weight room
special facilities or classrooms
doors to outside
4. Fixed facilities: dividing doors
basketball hoops/ key and movable
lights
5. Equipment: set-up
use of
safety

## PHYSICAL EDUCATION ORIENTATION FOR ESL STUDENTS STUDENT WORKSHEET

As you take part in this orientation, fill in the blanks with the appropriate answers.

1. Introduction: Two important aspects of P.E. are $\qquad$
and $\qquad$ .
2. Gym strip is the clothing you wear in the gym. Name the articles of clothing you would put on for gym class.
$\qquad$
$\qquad$
$\qquad$

Should you wear these clothes in your other classes? $\qquad$
3. List the areas of the gym:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
4. Describe two ways to raise and lower the basketball hoops?
$\qquad$ and $\qquad$
5. When the dividing door is closed, is the boy's gym on the north or south side?
$\qquad$
6. What three items are needed to set up the volleyball net?
$\qquad$ , $\qquad$
$\qquad$
7. Why must a teacher be supervising in the gym if any equipment is being used?

