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## The nonparticipation of year 10 female students in coeducational physical education in a metropolitan senior high school

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WESTERN AUSTRALIAN COLLEGE OF ADVANCED EDUCATION

THE NONPARTICIPATION OF YEAR 10 FEMALE STUDENTS  
IN COEDUCATIONAL PHYSICAL EDUCATION  
IN A METROPOLITAN SENIOR HIGH SCHOOL

A THESIS SUBMITTED IN  
PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF  
BACHELOR OF EDUCATION (WITH HONOURS)

BY

LISA FARDELL

JANUARY 1990

Candidate's Declaration

I certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

.....

Lisa Fardell

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## ABSTRACT

The nonparticipation of girls in coeducational physical education and physical recreation is of continuing concern to physical educators. It is apparent through observation that numerous girls opt out of physical activity by providing a variety of excuses or simply by remaining unchanged for physical education classes. The purpose of this study was to explore the stated reasons for the nonparticipation by Year 10 girls in coeducational physical education at Lynwood Senior High School.

The primary technique utilized in ascertaining information was the structured interview format. Each Year 10 girl who presented to physical education classes as a nonparticipant was interviewed individually to determine reasons for nonparticipation. The corresponding class teacher was also interviewed to provide additional information regarding participation patterns. In addition, an analysis of notes presented to the teacher allowed a comparison with excuses given in the student interview. Document analysis of the Student Handbock (1989), School policy and physical education

class rolls served to determine student nonparticipant numbers and school nonparticipation policy. This enabled an examination of the extent of the problem at the selected school.

On average, 24.15% of the girls in each Year 10 physical education class did not participate during the two week period of this study. There were three main stated reasons that were causing female nonparticipation at the school. The most predominant factor found to be causing nonparticipation was girls not bringing their physical education uniform. Secondly, it was evident that a dislike of a specific sport (touch football) was resulting in a number of girls opting out of physical education. The final factor identified was a variety of medical problems.

## CHAPTER 1

## INTRODUCTION

Background to the Problem

The purpose of this research project was to determine and analyse the stated reasons which ultimately resulted in the nonparticipation of girls in coeducational physical education. An examination of background reading revealed that the numbers of female nonparticipants was of general concern to the profession. The term 'nonparticipation' required clarification prior to the examination of contributing factors which lead to the nature of this problem. In this study, a nonparticipant was defined as any student who did not actively participate in a physical education lesson as a result of the presentation of a note (medical or parental), or was unchanged for activity at the commencement of the lesson.

The origins of coeducational physical education in Western Australia need to be considered when investigating the problem of nonparticipation. Traditionally, physical education had been organised in single sex classes with only a few schools adopting a



coeducational approach.

"In Western Australia coeducational physical education originated from two directions. These being through circumstances (non-choice), and design (choice) where schools have introduced this concept into their programme." (Doyle, 1980, p.27).

The design direction resulted from physical educators, either travelling or on exchange teaching positions, being exposed to coeducational practices in the United States of America, following the implementation of Title IX of the Educational Amendments of 1972. The fundamental consequence of Title IX with regard to physical education was that all students, male and female must have equal access to all physical education offerings and not be excluded from participation on the basis of sex. All physical education classes were required to be coeducational.

The more formal implementation of coeducation in Western Australia arose from teachers' perceptions of the Equal Opportunity Act which was proclaimed in 1984. Section 18(2) stated:

"It is unlawful for an education authority to discriminate against a student on the grounds of the student's sex, marital status or pregnancy.

a. by denying the student access, or limiting the student's access to any benefit provided by the

educational authority."

The implication of this act for physical education is comparable to Title IX; students should not be discriminated against participating in any activity on the basis of sex. There is an additional clause, however, in the Equal Opportunity Act (1984), which allows the exclusion of:

"persons of one sex from participation in any competitive sporting activity in which the strength, stamina or physique of competitors is relevant."

Some physical education teachers assumed that the implementation of coeducational programmes was a necessary requirement of the Act. This has been one of the principal outcomes of the Equal Opportunity Act, with a number of Western Australian schools offering physical education in a coeducational framework.

Coeducational physical education, whether it be totally integrated or semi-integrated has brought together both sexes under the same physical education setting. It is acknowledged that the primary advantages of coeducation encompass a number of social outcomes. However, coeducational physical education has magnified problems which directly relate to female nonparticipation. Monogan (1983) stated that "one reason girls keep shying away from co-ed sports may be that opportunities are not really that equal" (p.61).

This is clearly evident by the increasing number of female nonparticipants and the female participants who become competent bystanders (Siedentop, Tousignant and Parker: 1982), or withdraw from the activity by putting in minimal effort and stand well away from the play in game-oriented activities.

Griffin (1984) summarised many of the problems for teachers and students in a coeducational setting with the statement:

Teachers complain that a wider range of student skill level makes competition more difficult, more safety problems occur due to extremes in physical size, boys hogging the ball, girls hanging back, boys ridiculing girls, boys afraid to lose to girls, girls afraid to beat boys, and the social distractions of taking physical education with the other sex (p.37).

Adolescent females are extremely self-conscious and often embarrassed, which may lead to withdrawal from activity. The problems associated with adolescence combined with the problems of coeducational physical education may result in females moving from the end of the participation continuum to total nonparticipation.

Impinging upon the problems of coeducation in relation to nonparticipation are broad social concerns,

which underlie the foundations of a general theoretical model for this research. Socially and culturally, both males and females undergo the processes of socialisation and social conditioning. According to Coles (1980) "For most girls, becoming involved in sport is not compatible with the acquisition of a personally and socially acceptable role, whereas for boys just the opposite is true" (p.23). The sex role stereotype which encompasses socially acceptable behaviour for the female is one of femininity and being prepared for motherhood. Aggression and competition, which are traits linked to physical activity and masculinity are not considered acceptable traits for females. Thus for females, the demands of physical education may traditionally conflict with their role in society.

It would seem that nonparticipation becomes a greater problem as adolescence approaches, and socialisation into the secondary system occurs. This adolescent period can be hallmarked by an acute awareness of the development of femininity and womanhood, which often leads to withdrawal from physical activity.

Nonparticipation by females in coeducational physical education has in general terms arisen due to socialisation in combination with the onset of adolescence. The implementation of coeducation into physical education programmes has served to create a set

of problems that may result in nonparticipation. Therefore it is suggested that any of the following factors could contribute to the problem:

1. coeducational class implications which encompass ridiculing by males, self-consciousness of body image and embarrassment;
2. physical education uniform requirements;
3. changeroom facilities;
4. like or dislike of an activity;
5. like or dislike of a specific teacher;
6. fear of failure;
7. fear of success;
8. peer group pressure;
9. insufficient physical activity to warrant changing. (A large part of lessons are spent with the teacher managing and instructing while the student becomes bored and is minimally engaged in activity); and
10. medical reasons.

### Statement of the Problem

Physical education is the only subject area in which nonparticipants can be identified visibly. It would appear that nonparticipation by females in secondary schools becomes a conspicuous problem as adolescence approaches and socialisation into the secondary system occurs. This has been substantiated by Embrey (1983) who in a study of physical education nonparticipants revealed: "For girls there is a decline in the number who participate in all lessons in Year 10, whilst the boys hold steady across all year levels" (p.153). This suggested that declining participation in physical education by female students becomes evident at the Year 10 level. It is the reasons or events leading to this problem of nonparticipation that require investigation.

The reasons for not participating in physical education classes need to be determined in order for physical educators to be aware of the extent of the problem, and to enable them to seek answers which ultimately result in an action response. Hopefully, the outcomes will be twofold, first leading to increased participation in lower school physical education and secondly, increased participation in Year 11 and 12 Physical Education Studies. Consequently, this may encourage participation by females in physical activity

as an ongoing process through life. Embrey (1983) in examining a lifecycle approach in a study of nonparticipants stated "In general it would appear that secondary school plays an important role in the origins of adult non or limited participation" (p.96).

## Definition of Terms

### Adolescence

That period of time when a child is changing into a mature adult physically, emotionally and socially.

### Class

The organisation by which students are grouped for instruction.

### Coeducation

A grouping method utilised in education in which girls and boys are combined for instruction.

### General physical education unit

Units that are designed to provide students which the opportunity to develop skills in a variety of sporting areas.

### Genuine nonparticipant

A girl who presented as a nonparticipant with a formal note stating a medical condition or problem that precluded her from participating in physical education.



Lesson

The instruction given by teachers to students during a specific period of time.

Nongenuine nonparticipant

A girl who presented as a nonparticipant without a formal note and did not bring her physical education uniform on purpose.

Nonparticipant

A girl who does not actively participate in the physical education lesson as a result of presenting a note (medical or parental), or being unchanged for activity at the commencement of the lesson.

Note

A written statement by a parent or medical practitioner notifying the physical education teacher of the reason for a student's inability to participate in physical education.

Participant

A girl who changes into physical education attire ready for activity in the physical education lesson.

Peer influence

The effect that a peer or peers can have on the attitudes, values or behaviour of other members of the peer group.

Physical education

A planned learning experience through the physical medium, which promotes the development of social, mental and physical capabilities.

Physical recreation unit

Units that are designed to provide students with the opportunity to develop recreational pursuits in order to enhance leisure time.

Repeat nonparticipant

A girl who presented as a nonparticipant on more than one occasion during the two week period.

Semi-integrated physical education

A method of coeducational physical education where all students are mixed for skill development, but separated on a sex basis for the game development.

Sex role stereotyping

The allocation of specific roles to a person on the basis of gender expectations.

Socialisation

A process during which behaviours that are expected of adults in society are learnt. This lifelong process shapes and influences a person's identity.

Totally-integrated physical education

A method of coeducational physical education where the sexes are combined for both the skill and game development sections of lessons.

General Research Questions

In order to examine the problem of female nonparticipation in coeducational physical education, a number of research questions have been developed.

1. What is the percentage of female nonparticipants in coeducational physical education classes for a designated age group in a selected school?

2. What are the stated reasons leading to nonparticipation of females in coeducational physical education?

a) Does the nature of coeducation lead to nonparticipation?

b) Do physical education uniform requirements lead to nonparticipation?

c) Do changeroom facilities and related changing issues affect nonparticipation?

d) Do specific activities lead to nonparticipation?

e) Does fear of failure lead to nonparticipation?

f) Does fear of success lead to nonparticipation?

g) Does peer group pressure affect nonparticipation?

h) Does insufficient time spent in activity lead to nonparticipation?

i) What are the medical reasons which prevent participation?

### Limitations

This study possessed specific limitations inherent in the use of the interview as the predominant means of data collection, and these limitations need to be recognised:

1. The sample size was only small, therefore results cannot be generalised beyond Lynwood Senior High School.

2. Only General Physical Education and Physical Recreation Classes were involved in the study due to the general stream type entry into these units. Specialised Physical Education units were not included, as student entry into these units is closely monitored by physical education staff. Selection into specialised units is on the basis of previous physical education grades and behaviour. Therefore, it would seem that the group of students involved in Specialised Physical Education units may differ from those involved in General Physical Education and Physical Recreation.

3. This study was only concerned with Year 10 female students at a school which conducted a coeducational physical education programme.

Significance of the study

The purpose of this study was to identify and examine stated reasons which resulted in the nonparticipation of girls in coeducational physical education. Hopefully this will culminate in:

1. the identification of areas for future development to reduce nonparticipation by female students in physical education. These development areas will be documented as recommendations;
2. increased female participation in lower school physical education;
3. increased female participation in Year 11 and 12 Physical Education Studies; and
4. expanding the body of knowledge regarding female nonparticipation in coeducational physical education.



## CHAPTER 2

## REVIEW OF LITERATURE

The following review of literature explores the problem of female nonparticipation in coeducational physical education. Physical education is the only secondary school subject in which many nonparticipants can be identified, as they are unchanged for physical activity and usually sitting on the sidelines. Embrey (1984) stated "The presence of non-participants adds an extra dimension to the teaching - learning process in Physical Education and Sport in Schools" (p.1). The physical educator's class is usually composed of students changed and ready for activity in combination with those students defined as nonparticipants. Two major Australian studies (Embrey, 1983 & Kudelka, 1986) clearly defined the unique aspects of nonparticipation in the physical education setting being students having a choice regarding participation, and the visibility of nonparticipants.

There are three main interacting factors underlying the theoretical framework for this problem:

1. socialisation model;
2. coeducation; and
3. nonparticipation.

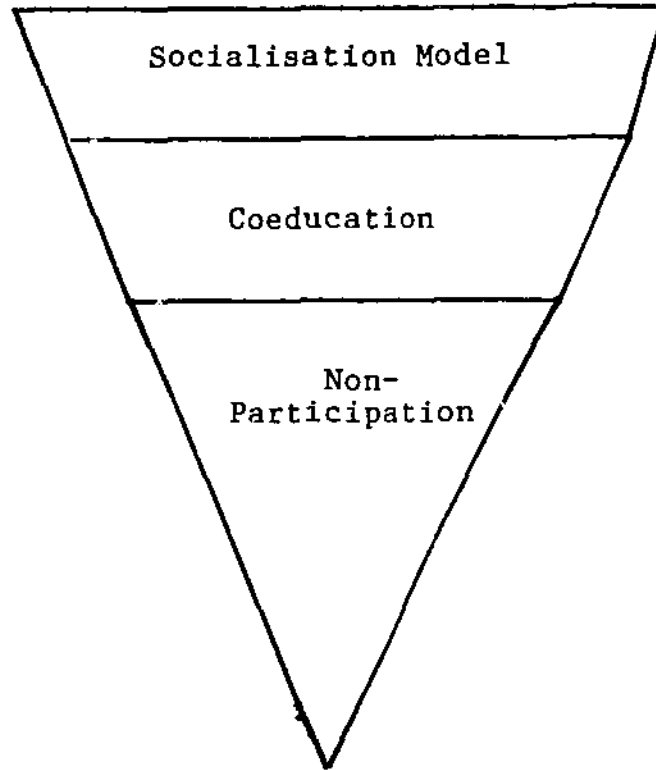


Figure 1. Nonparticipation Model

These factors can be conceptualised into a general nonparticipation model, as in figure 1 which will be extended to incorporate specific reasons for nonparticipation at a later stage in this review. However, it is necessary to display the basic framework of the model to identify the underlying relationship between the factors and simultaneously provide a structural outline for the ensuing discussion. Therefore this review will be divided into the following sections:

1. The socialisation model.
2. Family involvement in socialisation.
3. Peer group involvement in socialisation into sport.
4. The period of adolescence.
5. Nonparticipation.
6. Origins of coeducational physical education.
7. Advantages of coeducational physical education.
8. Disadvantages of coeducational physical education.

#### The socialisation model

Underlying the problems of coeducation and nonparticipation is a socialisation model based on sex-role socialisation processes and socialisation into sport, the onset of adolescence, and peer culture. It is evident that an important socialisation process for girls is one in which participation in sport or physical activity is discouraged. This is indicated by Coles (1980) in the statement: "For most girls, becoming involved in sport is not compatible with the acquisition of a personally and socially acceptable sex role, whereas for boys just the opposite is true" (p.23). In fact, as will become apparent, girls are socialised into developing qualities of femininity and motherhood from

the earliest age. These qualities sharply contrast to the perceived masculine qualities of competitiveness, aggressiveness and assertiveness which are compatible and highly desirable in sports participation.

Socialisation is a process commencing at birth that develops an individual's identity through the transmission of social values and learning of expected adult behaviours. At the earliest stage of social conditioning, boys and girls are exposed to different sets of values and attitudes. Different socialisation patterns are initially established by parents and the family unit, this being the primary agent of socialisation.

#### Family involvement in socialisation

The family is a fundamental part of the socialisation process, in terms of sex role development and socialisation into sport. This has been supported by Snyder and Spreitzer (1977), Coles (1980), and Dyer (1986), who described the role of the parents as the major socialising agent during childhood. The differential social conditioning of girls and boys is initiated at a young age with the selection of toys for girls contrasting greatly to those given to boys. At a very early age, boys are encouraged to play with bats and

balls which are geared towards developing traits of sporting involvement. These traits are also considered highly desirable for an adult male's role in life. In contrast, the toys selected for girls are dolls and playhouses which foster feminine, maternal traits. This was supported by Coles (1980) who, in discussing differential treatment of children, suggested that lack of encouragement to participate in sporting activity and selection of toys indicated that the females' future role was not aimed toward "primary participation in sport" (p.23). Research undertaken by Greendorfer cited in Dyer (1986) substantiated Coles, in terms of differential treatment:

it has been found that the socialisation processes to which boys are exposed - activity, aggression, strong role models, independence and the direct teaching of sport skills - are very different from those to which girls are exposed - nurturance skills, domestic indoor skills and sedentary activities (p.16).

In summary, childhood socialisation is dominated by parents and reinforces the concepts of masculinity and femininity. If these traditional sex roles are firmly established in childhood, sporting participation is not likely to be a high priority for girls. Parental

influence, especially encouragement by the mother to participate in sport has been correlated to adolescent girls sporting participation in the study conducted by Snyder and Spreitzer (1976). Therefore, it would appear that girls undergoing traditional social conditioning with regard to the development of a maternal attitude and femininity, may not class sport and physical activity as a high priority.

The child upon embarking on formal schooling, moves away from the family oriented socialisation process to one where the peer group becomes increasingly influential. This has been substantiated by Greendorfer (1977) who found that the influence of socialising agents changes over the "life-cycle". During childhood, the family is the primary socialising agent, but has little effect during adolescence when peers become the major influence. Further evidence to support the idea that socialisation influences change over the life span was provided by Overman and Rao (1981), who conducted a study of high school students to analyse the effects of parental influence on involvement and motivation into sport. They found that high school students were not influenced by family, but by significant others. Thus it may be inferred that the peer group is the predominant agent of socialisation during adolescence.

Peer group involvement in socialisation into sport

The importance of the peer group becomes apparent during adolescence, as students are very aware of peer approval and the values held by the peer group. Adolescents continually strive for acceptance and recognition amongst their peers. Therefore, if sport is highly valued by the adolescent's peer group, the adolescent will participate in sport far more widely and enthusiastically than the student whose peer group places a low value on sport. This has been supported by a number of studies (Coles, 1983; Dyer, 1986; Kudelka, 1986) that discuss the relationship between the peer group and sporting participation.

Sporting ability and the qualities of leadership, aggression, assertiveness and competitiveness in sport are highly valued by the peer group as important characteristics of an adolescent boy. This serves once again to reinforce the concept of masculinity. Peer group recognition has been summarised by Dyer (1986): "For a girl to get peer group recognition she must conform to the sex role behaviours expected of her by the group, and by society in general. These do not normally include primary involvement in sporting activities" (p.18). The development of femininity is significant for adolescent girls, being reinforced by the peer group and

is often incompatible with sporting participation. Thus, in secondary school physical education where classes are mixed, girls may not wish to be seen as competitive, assertive and 'sporty', especially when these qualities may not be highly valued by the peer group. Consequently, an attitude of indifference to physical education, or even a negative attitude, may be engendered and followed by limited or nonparticipation.

#### The period of adolescence

It would appear, that as students enter the period of adolescence, the family and peer group have acted as strong socialising agents. Students have already developed certain sex roles through preadolescent socialisation. The critical sex role fostered by girls is the focusing on femininity and this is often perceived by girls as being incompatible with physical education. This has been supported by a number of studies (Coles, 1980; Leaman, 1983; Evans, 1984; Dyer, 1986; Kudelka, 1986) that described adolescence as the period where girls' interest in physical activity and sport decreases to the point of not wishing to participate.

However, it should be stated that not all adolescent girls are antithetical towards physical education. The girls who have been socialised into sport through



parental encouragement and parental sporting role models may want to participate actively in sport. This can lead to "role conflict" as expressed by Leaman (1984, p.16). The characteristics of sporting involvement sharply contrast to the development of femininity and the desire to be accepted by one's peer group. This conflict may be resolved at the school level by withdrawal.

Another factor associated with the period of adolescence is self-esteem. It has been ascertained that girls with high self-esteem will develop positive attitudes towards physical education. This link has been determined by New Zealand research (Williams cited in Kudelka, 1986, p.50). However, the girls lacking in self-esteem and a positive self-concept may dislike physical education. The mixed setting, with the boys ridiculing girls' skill levels and physical appearance may serve to reinforce girls' perceived negative feelings about themselves, resulting in withdrawal and possible nonparticipation.

In summary, the process of socialisation in terms of sex role development and socialisation into sport is fundamentally influenced by two agents: the family and the peer group. The concept of femininity is often perceived by girls to contrast sharply with physical education, resulting in a declining interest in sport at the onset of adolescence. This is supported by Dyer

(1986) who stated:

Although a young girl may be unclear about what to do in order to be a woman, she does respond to a simple, clear directive which is to withdraw from what is obviously designated masculine. Sport clearly falls into this category (p.32).

The review, thus far has concentrated upon the area of a broad socialisation model, relating general theoretical background to the problem of nonparticipation. It is now necessary to focus upon the nature of coeducational physical education, a situation in potential conflict with socialisation.

#### Origins of coeducational physical education

An historical overview of the origins of coeducation in physical education will set the background for examining the advantages and disadvantages of sex-integrated classes, which may lead specifically to reasons for female nonparticipation. As previously discussed, students are socialised into particular forms of sex-role stereotyping in sport. Until recently the school system supported the socialisation process by separating girls from boys in physical education. Traditionally, physical education classes were single sex

on the basis of established norms. For example, boys played football and cricket while girls participated in netball and softball. During this era of single-sex physical education classes, only a few schools adopted a coeducational approach on either a need or design basis. The constraints of timetabling physical education options led to mixed sex classes for areas like outdoor education and physical recreational activities. In contrast, the design base arose from physical educators intentionally introducing a coeducational approach to their programmes. This has been substantiated by Doyle (1980) who stated "The more significant beginning of co-education in the physical education programme which is compulsory for years eight to ten, was through the planning of some physical educators" (p.27). The design origin can be identified as the result of physical educators being exposed, directly or indirectly, to coeducation practices in the United States of America that were implemented to conform with the requirements of Title IX of the Educational Amendments of 1972.

Title IX, as cited by Docherty (1980), declared that "No person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance" (p.24). Fundamentally, this required all physical

education programmes to be coeducational. The primary implication of Title IX in relation to physical education was that all students, regardless of sex be offered equal access in physical education in terms of selection of activity/sport, equipment and facilities. This has been well documented by Arnold (1977) and Kelly (1977).

The more formal implementation of coeducational physical education in Western Australia has emanated from the proclamation of the Sex Discrimination Act (1984) by the Australian Government. This was paralleled in Western Australia with the Equal Opportunity Act (1984). The conditions which are relevant to physical education have been summarised by Browne (1988) as "It is unlawful for a school to discriminate against a student on the grounds of the student's sex, by denying the student access, or limiting the student's access to any benefit provided by the school" (p.19). The implication of the Act is comparable to Title IX; students should not be discriminated against participating in any physical activity or sport on the basis of sex. However, there is an additional clause, which allows for the exclusion of "persons of one sex from participation in any competitive sporting activity in which the strength, stamina or physique of competitors is relevant". This exclusion makes provision for single-sex participation in those competitive sporting activities

where the acknowledged differences between boys and girls, in terms of strength, stamina or physique play a significant role. Many physical educators have perceived that conforming to this legislation required the implementation of coeducational programmes. This has been one of the principal outcomes of the Western Australian Equal Opportunity Act (1984) with an increasing number of schools offering a coeducational physical education programme. The implementation of coeducation programmes has resulted in boys and girls being integrated into the same physical education setting, a situation in potential conflict with socialisation. There are mixed feelings towards coeducational physical education in professional circles. These will be discussed under the two sections which examine the advantages and disadvantages of sex-integrated classes.

#### Advantages of coeducational physical education

The most significant benefit of coeducational physical education revolves around social aims. The advantage of the socialising nature of the mixed setting, which allows students the opportunity to co-operate and communicate with members of the opposite sex, has been expressed by Selby (1977), Garnaut and Doyle (1979),

Leaman (1984), and Dyer (1986). The barriers between members of the opposite sex, which are often firmly in place by the adolescent period, can only be broken down through co-operation, communication and a general awareness of others. The social development which occurs in coeducational physical education may act as a vehicle to establish understanding between the sexes. This has been substantiated by Dyer (1986) who stated an advantage of coeducational physical education as being the encouragement of "social interaction between the sexes which improves communication and develops an awareness and understanding of one another" (p.85).

Closely linked to the social benefits of coeducation is the fact that a mixed setting reflects the reality of the nature of society. It is considered by some to be unnatural to separate the sexes when students have to learn to cope and deal with the problems and relationships of a mixed society. Selby (1977) described an advantage of coeducational physical education classes as placing "sports in a more natural life time setting" (p.191). The mixed physical education setting may aid in breaking down the traditional sex role stereotypes of females being nonaggressive, noncompetitive and nonphysical.

The principle advantages of coeducational physical education have been briefly stated and it is necessary to

summarise further benefits in relationship to girls.

Dyer (1988) expressed these advantages as being:

1. girls who are capable at physical education enjoy the challenge; and

2. girls are expected to participate in traditionally accepted male activities like weight training, soccer and football. Thus, traditional sporting limits have been removed (p.85).

These advantages may lead to students having positive attitudes towards coeducational physical education, especially for those students who experience success and/or enjoyment from participating. Limited research has explored the area of student attitudes towards coeducational physical education. One of the few studies (Mikkelsen 1979) determined student attitudes as being positive in relation to coeducational physical education. It may be inferred that the girls with positive attitudes were those who experienced success and/or enjoyment from participating. The only other studies that may verify this link, have been carried out in single-sex classes (Butcher, 1979 & Mutrie, 1983), where girls who had more successful experiences had more positive attitudes towards physical education. The link between successful experiences in physical education and positive attitudes is also present in sex-integrated classes. Those girls who are challenged and have

successful experiences, consequently will participate enthusiastically and have positive attitudes.

The advantages of coeducational physical education combined with the link between positive attitudes and participation has served to demonstrate that students may benefit from the mixed setting. However, this study is concerned with the opposite end of the scale. It is the nature of coeducation which may result in students having negative attitudes, finally leading to nonparticipation, that is being addressed. The following diagram illustrates a negative attitude to coeducational physical education leading to nonparticipation.

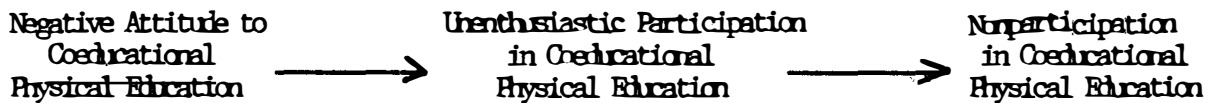


Figure 2. Relationship between negative attitude and nonparticipation in physical education.

#### Disadvantages of coeducational physical education

Although coeducational physical education may be beneficial to students, especially in terms of social development, many problems have emerged. Monogan (1983)



in discussing the "failure of coed sports" stated that "...coed sport produces stress for many children" (p.58). It may be inferred that this stress could lead to nonparticipation. Consequently, this needs to be explored in terms of the disadvantages of coeducational physical education.

Differences in skill level between the sexes in most sports or physical activity have been described by Selby (1977); Leaman (1984); Griffin (1984); Dyer (1986); Kudelka (1986) and Evans (1988) as a problem in mixed settings for numerous reasons. Initially, when one sex has experienced greater exposure to a specific sport, a wide range of skill levels are evident in physical education classes. This is particularly true in the traditional stereotyped sports like cricket, football and netball. This has been described by Dyer (1986) in a statement of the disadvantages of coeducational physical education; one being "boys ridicule and harass the girls about their lower skill level" (p.85). Adolescent girls can be sensitive and self-conscious, not to mention aware of the opposite sex. This ridicule of their skill level may serve to lower self-esteem, subsequently causing withdrawal. There have been a number of studies (Selby, 1977; Leaman, 1984 & Kudelka, 1986) that describe girls as feeling discouraged and self conscious about their perceived lower skill level, compared with the boys and

their reluctance to compete in a mixed situation.

The problem of the range of skill levels is further developed in the actual game situation, although this now has to be linked to the domineering nature of the boys. In examining the issue of coeducational physical education, Evans (1988) observed two beginning teachers in Western Australia conducting mixed physical education classes. The important factors derived from these observations can be summarised as:

1. a pattern of interaction was exhibited where the majority of girls were continually on the outskirts of the class;
2. dominance of the game situation was chiefly by the boys who "determined the pace and direction of the game being played" (p.4); and
3. although the girls enthusiastically participated with application to the skill practices, the boys did not encourage participation by the girls in the game - they were excluded.

These findings function to demonstrate that girls, in a mixed setting, being ridiculed about their skill level and placed in a game dominated by the boys, may be discouraged to the point of developing a negative attitude toward physical education. This may eventually lead to nonparticipation. The problem of boys dominating

the physical education class to the stage where girls become withdrawn has been described by Dyer (1986).

The period of adolescence results in girls being extremely self-conscious about their developing bodies. Normal school uniform is often modified by girls of this age group with oversized school jumpers used to cover the growing body. Consequently, when faced with changing into physical education attire (usually consisting of a short pleated skirt and shirt) they feel threatened and embarrassed. Physical education classes provide an opportunity for boys to taunt girls about their size and shape. Two Australian studies (Dyer, 1986; Kudelka, 1986) detail the self-consciousness of adolescent girls about their developing bodies. This is another problem associated with sex-integrated classes where girls decide not to participate because of:

1. a low self-concept; and
2. self-consciousness because of their maturing body. This is further exacerbated when some girls are the centre of attention, in terms of ridicule by members of the opposite sex.

The stereotypes that have been developed by society, with regard to females being nonaggressive, noncompetitive and nonphysical compared with males, may in fact be reinforced by coeducational settings. Knoppers (1988) in discussing coeducational physical

education stated that "Girls are more likely to be praised for being neat, quiet and compliant than for questioning and assertiveness, while boys are encouraged to be aggressive, competitive and attempt to achieve the motto 'Higher, swifter, farther'" (p.54-55). Although the breaking down of these stereotypes has been cited as an advantage, one study specifically (Evans, Lopez, Duncan & Evans, 1987) observed coeducational physical education classes and found that in some sports, teacher's and student's "stereotypical expectations" were confirmed (p.65). Therefore, it must be recognised that mixed settings may serve to strengthen these stereotypes instead of breaking them down.

A further disadvantage of integrated physical education relating to girls' participation levels is the lack and type of teacher attention they receive. The male members of the class, who tend to be domineering, aggressive and assertive in nature, tend to demand the teacher's attention. This has been substantiated by Leaman (1986) who stated "Teachers have been observed to pay far more attention to the boys in mixed classes, thus providing them with more stimulation and assurance of their importance, in contrast to the generally quieter and less aggressive girls" (p.28). The result may be a lowering of girls' self-esteem due to lack of attention. The reinforcement provided to boys may serve to increase

girls' feelings of inferiority, leading to withdrawal from the situation.

The disadvantages of coeducational physical education have been examined, emphasising the effect they have on the girls in terms of possible negative attitudes, withdrawal and nonparticipation. It is acknowledged that there are problems for boys in the mixed setting. However this area has been deliberately excluded from the discussion, as the focus is female nonparticipation in coeducational physical education. In conclusion, Monogan (1983) summed up the situation when he stated "one reason that girls keep shying away from coed sport may be that the opportunities are not really all that equal" (p.61). This has been indicated by differing initial skill levels in some sports, girls' fear of ridicule about their skill level and developing bodies, boys' dominance of game settings and subsequent girls' withdrawal, and the distribution of teacher attention being mainly to the boys. These problems must be confronted, otherwise increasing numbers of girls may develop negative attitudes towards coeducational physical education finally leading to nonparticipation.

One way to determine the impact of coeducational physical education is to examine the incidence of nonparticipation especially of adolescent girls in Year 10. An earlier study by Embrey (1983) investigated

nonparticipant trends for girls and boys prior to coeducation. At this stage of the review, it is necessary to examine literature dealing with nonparticipation.

### Nonparticipation

Nonparticipation has been identified as a problem in physical education by Embrey (1983) who conducted a pilot study to gain a wider understanding on nonparticipation in secondary schools in Western Australia. As previously stated, the onset of adolescence marks the period of declining interest in physical education for girls. Negative feelings towards physical education must be developed prior to the behavioural change of nonparticipation occurring. These feelings are evident in some students, and this is supported by Dodds (1976) who after observing physical education classes stated: "One sees non-participating students lounging on bleachers, students dressing late and leaving early, students misusing equipment and students openly expressing their distaste for physical education by comments, gestures or grimaces" (p.111).

Further specific factors underlying nonparticipation in physical education have been documented by a number of different researchers. Two studies (James and Webb,

1965; Butcher, 1979) listed dislike of a specific sport as a least liked aspect about physical activity. Although these studies were both conducted in private girls' schools it is possible to infer that dislike of a specific activity may be a reason for not wishing to participate. Mutrie (1983) interviewed female university students focusing on their high school physical education experiences. The result showed that 75.9% of subjects were dissatisfied with the activities in which they participated and 58.6% believed that teachers paid more attention to the skilful students. This lack of attention to less skilled students can be linked to coeducational physical education. Boys demand more attention and are usually given it, whereas the girls receive little attention in mixed classes. A possible outcome of a perceived lower skill level and lack of attention may be withdrawal and nonparticipation. Kudelka (1986) after interviewing a group of "turned off" students stated: "Their perceived lack of skill seemed to make the girls very self conscious" (p.20). Adolescent students, especially girls, are self-conscious of their developing bodies. When faced with boys taunts and ridicule about their appearance and skill level, girls may develop negative feelings toward coeducational physical education.

Whilst exploring the area of self-consciousness in

relation to a perceived lack of skill, it is necessary to link another possible reason for nonparticipation, that of fear of failure. This is substantiated by a study by Kagan and Moss (cited in Nicholson, 1979) who demonstrated that "females' orientation to achievement as a fear of failure that resulted in withdrawal from situations when achievement or success seemed unlikely" sic. (p.661). Smithwick (1986) also cited fear of failure as a reason for refusing to participate by being unchanged for activity.

For many girls, the issue of physical education uniform is a sensitive area, because of self-consciousness due to their maturing bodies. Girls may be too embarrassed to participate in sporting activities due to uniform requirements (usually a short, pleated skirt and shirt). Requirements for physical education attire in relation to participation have been examined by Lavay and Bishop (1986) and Smithwick (1986). Further aspects with regard to uniform can be summarised as follows:

1. girls don't like changing in front of other girls;
2. lack of funds to buy the uniform;

These reasons may result in students not bringing their uniform and consequently not being allowed to participate.



Another possible reason for nonparticipation suggested by Embrey (1983) was the lack of activity in physical education classes. This is supported by studies of Academic Learning Time in Physical Education (ALT-PE) (Pieron, 1980; McLeish, Howe & Jackson, 1981 cited in Rink, 1985) that have shown minimal time is spent in physical education in actually engaging in motor activity. This may result in students deciding not to change for physical education, as the majority of time in class is spent with teacher talk in management and instruction.

At this stage, it is necessary to extend the model for nonparticipation presented in the introductory phase of this review. The following model has been adapted from Browne (1989) to suggest possible causes and effects to explain female nonparticipation. It has been extended to include the additional specific reasons examined in the preceding discussion.

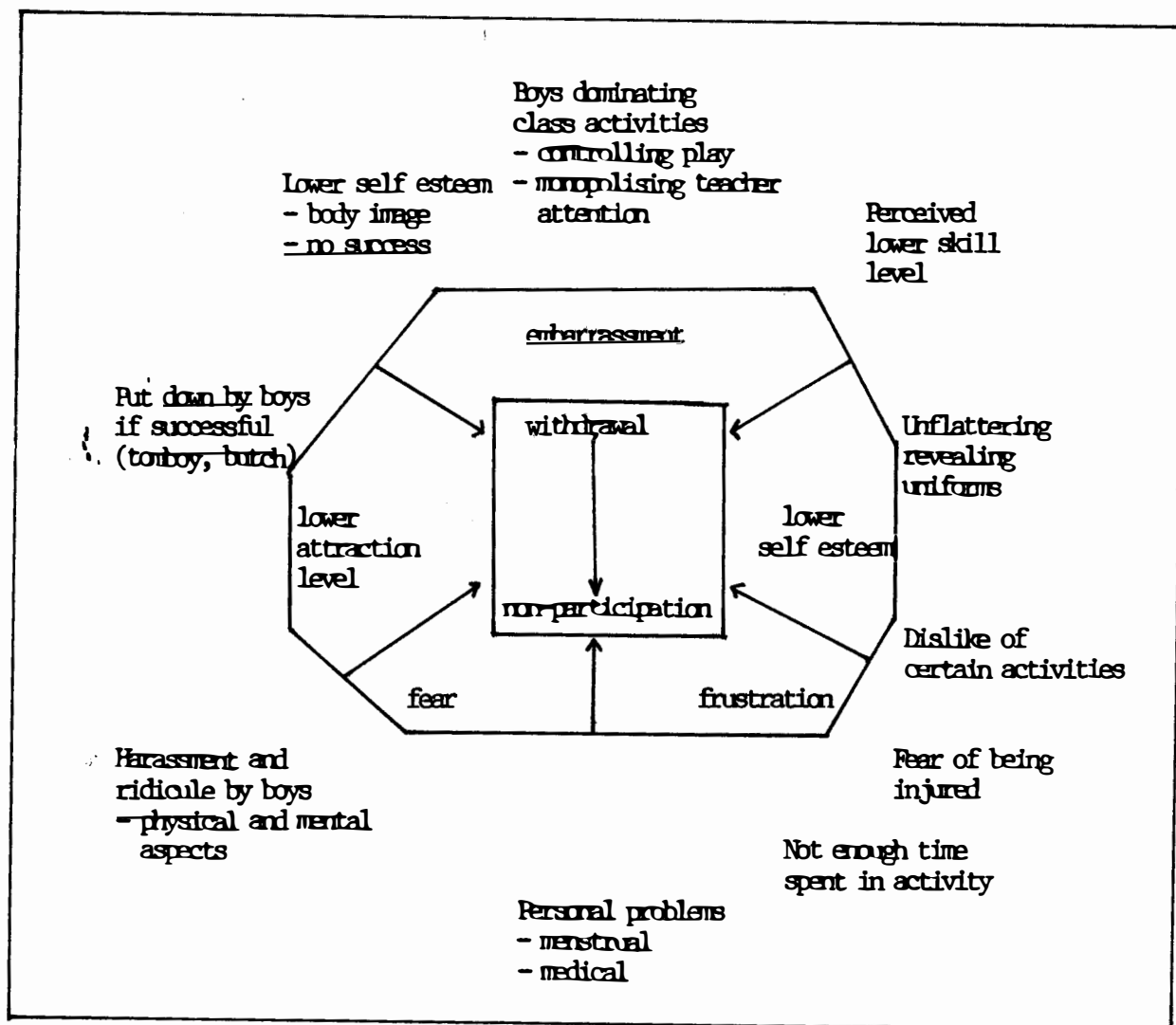


Figure 3. Factors affecting girls participation in coeducational physical education in secondary schools. (Adapted from a model used by Browne, J: 1989)

It is evident from the model that the problem of nonparticipation is indeed complex in nature. Dodds (1976) stated "Somehow and somewhere our students acquire avoidance rather than approach behaviours in physical education. It is imperative that physical educators solve this problem" (p.112). Now that coeducation has been implemented in numerous Western Australian secondary schools, it is important to establish if girls' nonparticipation behaviours are linked to this type of class organisation. The review of literature has indicated that a missing ingredient in the area of female nonparticipation is the determination of reasons for nonparticipation by asking the nonparticipating girls. Although research has been examined regarding nonparticipation, the efforts to date have not put forward a concise statement centring on the reasons for female nonparticipation in the mixed setting. Embrey (1983) has paved the way for issues regarding nonparticipation to be further explored. This study will endeavour to add to the established body of knowledge regarding nonparticipants in coeducational physical education.

## CHAPTER 3

## DESIGN OF THE STUDY

This chapter presents details regarding the methodology utilised in the study. The chapter is divided into five sections:

1. Procedures;
2. The Study Group;
3. Instrumentation;
4. Pilot Study; and
5. Data Collection.

Overview

This research project, which focuses on the determination of factors leading to female nonparticipation in coeducational physical education, is mainly qualitative in design, being a descriptive - analytical study. The primary data source in ascertaining the specific factors that affect nonparticipation was Year 10 females who were present at physical education classes with no intention of participating, as they were either unchanged or had presented a note to the teacher. Another data source were the teachers of Year 10 coeducational physical education classes at the selected school, and three types

of school documents. These were:

1. School Handbook stating nonparticipation policy;
2. class rolls; and
3. notes presented to the teacher.

The techniques utilised in gathering data were the interview format and document analysis, being predominantly qualitative in design. However, quantitative methods were employed in analysing class rolls. The first technique to be examined was the interview format whereby all Year 10 female nonparticipants, and the corresponding teachers of Year 10 classes were interviewed.

### Interviews

The structured interview format was selected as the most effective way of gaining information about nonparticipation for a number of reasons. Underlying all of these reasons is a fundamental consideration - one where the researcher has control. It enables the researcher to be personally present while the information is being provided and perhaps more importantly allows the researcher the opportunity to establish rapport with the student respondent. This is crucial in investigating such a sensitive issue with possibly a self-conscious group of adolescents. The initial contact with the

student is vital to facilitate the development of a relaxed, confidential atmosphere, in which the student will be assured that the stated information will only be used by the researcher. If there is any student feeling of anxiety, or suspicion that she will be punished if the teacher learns of her reason for not participating, the interview responses may be invalid due to untruthful answers. Clarke and Clarke (1970) stated "The interviewer must show insight and gain rapport with the interviewee and give him assurance that the information will be kept confidential" (p.114).

In addition, the researcher is face to face with the student being interviewed, which allows the monitoring of nonverbal responses. The valuable nature of nonverbal cues, in terms of facial expression and gestures, lies in the opportunity for the interviewer to detect the honesty of responses. Through the combined use of direct questioning and observation of nonverbal cues, judgement can be formed on the adequacy of responses. The interview format allows the student respondent to be absolutely clear on the meaning of the questions by the interviewer ensuring that the intent is explicit. This is substantiated by Clarke and Clarke (1970) who stated "The interview permits the interpretation of the meaning of questions ...and thereby obtain more adequate responses" (p.114).

This personal presence has, in contrast, been stated by Vockell (1983, p.86) to pose a disadvantage in terms of loss of anonymity and consequently reduction of honesty. A further problem with interviewing in relation to personal presence is that student respondents may try to provide answers they think the researcher wants to hear. They are directly responding to the researcher's presence. "Interviewing can produce biased data because the subject may be responding to your presence rather than presenting an accurate account". (Murphy, 1980, p.77) For the interview to be an effective method of data collection, the establishment of rapport and research purpose is essential, in order to negate respondent anxiety and the production of biased answers.

#### Document Analysis

The second technique to be employed was a document analysis of three data sources. Initially, analysis of the School Handbook provided valuable information about the school's policy in regard to nonparticipation in physical education. The function of the analysis of the school policy on nonparticipation was to provide background information. This was an introductory step prior to the commencement of interviews. Year 10 class rolls were examined to collect quantifiable data on numbers of nonparticipants. This served to determine not

only the numbers of nonparticipants, but the extent of the problem at the specific school. Analysis of notes, which were presented by students to their physical education teacher at the commencement of the lesson, enabled basic background data to be collected. First, numbers of nonparticipants were double checked by comparing the notes to the class rolls. Secondly, the reason stated in the note was compared to the reason identified in the student interview.

Document analysis provided the means for examining written records and in the case of school documents, formal legal material. This enabled the collection of supplementary information which should increase the credibility of research findings.

### Triangulation

By combining the techniques of interviewing and document analysis, which use qualitative and quantitative data, the process of methodological triangulation was utilised. "Triangulation may be defined as the use of two or more methods of data collection in the study of some aspect of human behaviour". (Cohen and Manion, 1980, p.208).

The use of triangulation between methods as stated by Cohen and Manion (1980) "involves the use of more than one method in the pursuit of a given objective" (p.213).



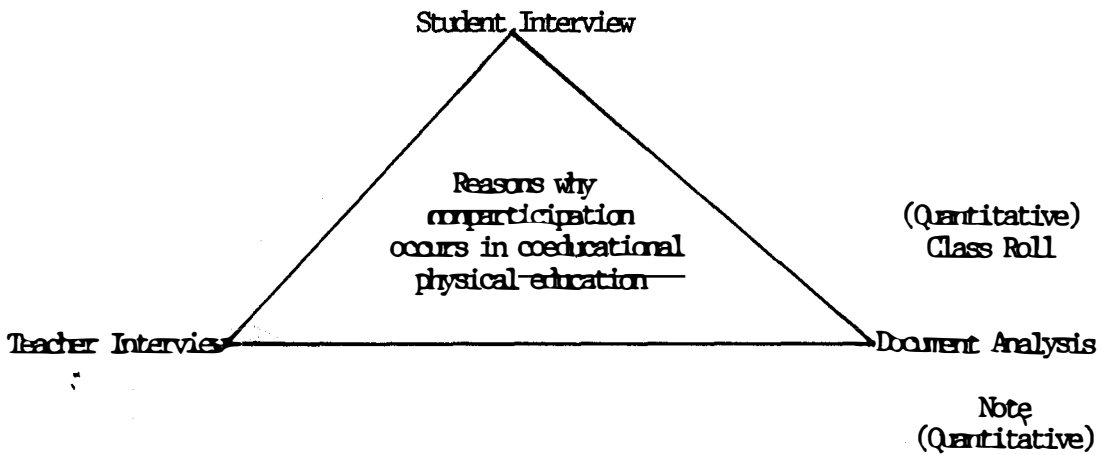


Figure 4. The use of triangulation in this study.

The preceding diagram illustrates triangulation as utilised in this research project. The interview method with two different data sources, combined with document analysis represents three different sources providing input into the general research question. This will aid in clarifying validity constraints of this research. Factors directly relating to triangulation and validity will be discussed in the ensuing instrumentation section.

### The Study Group

Prior to identifying the population from which the study group was chosen, it is necessary to explain that two secondary schools were required; one for the purpose of a pilot study, and the second for the actual research. The only characteristic that was important to this study, in terms of general population was that the schools conducted coeducational physical education programmes. Two schools were selected based on this characteristic and the fact that both schools have been coeducational in physical education for at least five years. Following permission from the Ministry of Education and the corresponding school principals, the pilot study was carried out at Melville Senior High School while the research was conducted at Lynwood Senior High School.

The target group required possessed three characteristics. The students were:

1. at Year 10 school level;
2. female; and
3. present at a physical education class as a nonparticipant.

Therefore, a sampling technique was unnecessary for this research project as all Year 10 female nonparticipants presenting to physical education over the time frame of two weeks were interviewed. This can be classified as

purposive sampling. Miles and Huberman (1984) stated "qualitative researchers typically engage in purposive rather than random sampling" (p.25). This was the case in this research as to answer the research question and attain the objectives, a specific sample was necessary.

The targeted year level was Year 10 for a number of reasons:

1. the majority of students in Year 10 will have had exposure to coeducational physical education at secondary level for nearly three years;
2. it is a crucial year level in terms of continued participation in physical activity:
  - a. if they leave school and enter community sports;
  - b. if they choose to enter the course in Physical Education Studies in Year 11; and
3. it ensures that they have had equal amounts of coeducation if they have been at the school throughout their secondary school life.
4. the process of socialisation is particularly evident in this year group.

### Instrumentation

The instruments which were employed in this study were two separate interview schedules for the two groups; the nonparticipating students and the corresponding teachers. The final schedules which are attached as Appendices F and G are not standardised instruments. The questions have been developed to facilitate optimal collection of data in direct relationship to the stated research questions.

The techniques used in recording interview responses were written records taken during the interviews, in combination with audio-tape recordings of each interview session. By taping each interview, a formal record was established, that enabled double checking. This increased the validity of research results, as the accuracy of responses were confirmed by listening to the tape. The establishment of reliability and validity is difficult in qualitative research, but these factors must be addressed. By selecting to use a structured interview, reliability can be built into the delivery of the interview. This is achieved by asking exactly the same questions in the same order to each nonparticipant. Thus, another interviewer using the same structured schedule in the same nonparticipant context should gain comparable responses. The pilot study was completed by

interviewing the nonparticipants and corresponding teachers in two Year 10 coeducational physical education classes. This assisted in checking that the questions were correctly targeted to gain optimal information, and consequently aided validity.

The establishment of reliability and validity of the interviews cannot be separated from the technique of document analysis which completes the relationship in the multi method approach. Triangulation is a technique which will increase the validity of the research results. Jick (1979) stated "It is largely a vehicle for cross validation when two or more distinct methods are found to be congruent and yield comparable data" (p.602). By cross-checking student interview responses with teacher interview responses, notes and class rolls, validity will be increased. This will enable the presentation of accurate findings, derived from more than two sources and using two or more methods.

### Pilot Study

The pilot study was conducted at Melville Senior High School on the 4th of August, 1989. Two Year 10 physical education classes were available to participate on the scheduled day. Permission was gained to conduct the pilot study from the Principal at Melville Senior High School (Appendix A). The procedure for piloting the interview schedule for students and teachers was based on the proposed procedure for the actual research. Pilot study schedules for student and teacher interviews are included as Appendices D and E. The main purpose of the pilot study was to administer the interview schedule in order to determine if any alterations were needed. Modifications may have been required in the language used in the interview, or in the phrasing of specific questions. These factors can affect respondent understanding of questions and consequently, the validity of the study. Therefore, it was essential to conduct the pilot study as if it were the actual research to obtain the most effective set of questions targeted at the research questions of this study.

The total female nonparticipant population of the two physical education classes was interviewed. The number of nonparticipants in each class was three, thus the total number of students interviewed was six. The

corresponding physical education class teachers were also interviewed producing two sets of teacher responses. At the completion of each interview, students and teachers were asked two supplementary questions designed for the pilot study. These were:

1. Were there any questions you had difficulty in understanding?

2. Is there anything you would like to add that you haven't had the chance to during this interview?

These questions enabled the clarity of the interview schedule to be examined through a double checking of respondent understanding. As a result of the interviews completed during the pilot study, a number of modifications were made to the student and teacher interview schedules. The most significant alteration made to both interview schedules was the introduction of a rating response scale. This technique for responding to questions is generally used in questionnaires, whereby respondents are presented with a 5 or 3 point scale. The respondents then answer the question by marking their response along the continuum. During the pilot study, a number of questions produced vague responses indicating a need for a restructuring of certain questions. Upon further consideration it appeared that the introduction of rating response scales to a number of questions would serve a number of beneficial purposes. Foremost, it

enabled respondents to accurately answer the stated questions by indicating their response on the scale. It also presented the researcher with a very specific set of responses, already coded for analysis. The use of a rating response scale within the framework of the structured interview schedules results in more precise answers. As a consequence, not only will the information received be more accurate, but the reliability of the study should be improved.

In the interview schedule for nonparticipants, questions 1, 6, 8 and 12 were changed following the pilot study. A commonality was evident in the modifications, in that the questions all resulted in the inclusion of a rating response scale. This change was necessary as during the pilot study students were responding in very general terms. For example, question 1 "What do you think of Physical Education?" was producing responses of "It's okay". Therefore, it was apparent that to gain more accurate information certain changes were required. These changes took the form of response rating scales. It was evident that questions 6, 8 and 12, which all dealt with a period of time, required additional structure to aid respondent understanding. For example question 6, "How often don't you participate in physical education?" produced answers of "I don't know" and "What do you mean?". As a consequence, rating response scales



were added to the questions, whereby students could respond in terms of frequently, occasionally and seldom.

The pilot study of physical education teachers of Year 10 classes also resulted in alterations being made to certain questions. Question 3, which dealt with the amount of time students present as nonparticipants, was changed once again by adding a rating response scale. This scale presents the same response alternatives of frequently, occasionally and seldom in order to maintain uniformity of responses for ease of data analysis.

Following the pilot study, question 4 of the teachers interview schedule which already possessed a response rating scale, was slightly modified. Changes to the actual responses in the rating scale were needed to provide the respondents with a more comprehensive scale that displayed equal intervals between the responses. This was not evident in the responses for question 4 in the pilot study instrument. Furthermore, this change allowed comparisons between student perceptions of their own attitude to physical education (see question 1 - nonparticipants interview) and teachers' perceptions of individual student attitudes to physical education to be analysed more accurately. This comparison is now possible with the restructured response rating scales exhibiting similar responses in the scales in both questions.

The specific changes made to the original interview schedules (see Appendices D and E - Pilot Study Instruments) can be identified in the final interview schedules (see Appendices F and G - Final Research Instruments).

### Data Collection

The collection of data was undertaken at Lynwood Senior High School over two weeks, commencing on the 4th of September, 1989. Permission was gained to conduct the actual study from the Principal at Lynwood Senior High School (Appendix B). Approximately 1,200 students attend Lynwood Senior High School, with 243 of the population being Year 10 students. Data collection was interrupted on two separate occasions for the following reasons:

1. A Year 10 interschool carnival resulted in the majority of the Year 10 students being involved in some capacity. This was held on the 5th of September, 1989.

2. Industrial action on the 15th of September, 1989 resulted in no physical education classes being taken on this morning.

Therefore, data was actually collected over eight days.

On arrival at the school, copies of the Student Handbook (1989), the Physical education policy statement and Procedure for roll marking were obtained. In addition, a timetable listing the Year 10 physical education class times was obtained (see Appendix H). The researcher would then be seen at the school only during the times of Year 10 classes. The reason for this was to increase the student respondents' trust in the researcher. By being present in the school only when

necessary, the researcher would not be identified with the physical education staff. Hopefully, this resulted in students viewing the researcher as a nonthreatening person, and one not closely associated with the Physical Education Department.

During the time frame, a total of 12 physical education classes were involved in data collection for this study. These classes were a mixture of General Physical Education and Physical Recreation. The reason for including these two content areas was that the numbers of nonparticipants appeared to be approximately equal in both situations. Specialised Physical Education units, which are offered at Lynwood Senior High School were not included in this study, as student entry into these units is closely monitored by physical education staff. Selection into specialised units is on the basis of previous physical education grades and behaviour. Therefore, it would seem that the group of students involved in Specialised Physical Education units may differ from those involved in General Physical Education and Physical Recreation. Students may only be selecting the latter units because they have to do a number of physical education units each year and can't gain entry into the specialised units.

The 12 physical education classes involved in this study yielded a total number of 30 students who did not

participate in physical education on one or more occasions during the time frame. Therefore, the number of students interviewed was 40, as a group of six students presented as nonparticipants on more than one occasion. To satisfy ethical requirements, all students were asked if their interviews could be taped. However the majority of girls indicated that they would prefer not to be audio-taped.

In this study, a student who presents as a nonparticipant more than once was termed a repeat nonparticipant. As each lesson was independent, repeat nonparticipants were interviewed each time they presented to the physical education lesson as a nonparticipant. These repeat interviews served a number of purposes:

1. an indication of the consistency or lack of consistency of responses enabled the reliability of the student interview schedule and questioning technique to be checked;

2. student reasons for not participating may vary from lesson to lesson, and therefore each interview resulted in the collection of new data in some questions. However, as will be further explained in the discussion of results, when tabulating and analysing results repeat nonparticipants responses for some questions were excluded.

Following each student interview, the corresponding

physical education class teacher was interviewed.

Although there were 40 corresponding teacher interviews, only three female teachers were involved, as they were the staff responsible for the Year 10 classes. At the time of data collection the Physical Education Department at Lynwood Senior High School consisted of five female and four male staff. All of the physical education staff were interviewed for responses to question 5 of the teacher interview schedule, which stated:

"In general, what are some of the reasons/problems causing nonparticipation by girls?"

This enabled the collection of the full range of opinions within the Physical Education Department with regard to the reasons causing nonparticipation. All student and teacher interviews were transcribed immediately after the day's session at Lynwood Senior High School, and raw data tables were drawn up from these transcriptions.

At the completion of each lesson and after the corresponding teacher was interviewed, details from the roll were collected to enable double checking of the numbers of nonparticipants that day. In addition, numbers of female nonparticipants were tallied for every lesson up until the point of data collection. This included the eight lessons prior to the 4th of September, 1989. By collecting these details from the rolls, a more complete picture of the extent of the problem at Lynwood

Senior High School was established. If a nonparticipant presented a note to her physical education teacher, this was collected and then returned to the teacher after the content was recorded.

In summary, the data collected at Lynwood Senior High School during the period of the 4th - 15th September, 1989 included:

1. nonparticipant interviews;
2. teacher interviews;
3. details from class rolls;
4. details from notes presented to the physical education teacher; and
5. copies of the School Handbook (1989), the Physical education policy statement and Procedures for marking the rolls.

## CHAPTER 4

## RESULTS AND DISCUSSION

In analysing data, different techniques were used for each method of data collection. Therefore, this chapter has been divided into three sections on the basis of the method of data collection:

1. Document analysis;
2. Student interviews; and
3. Physical education teacher interviews.



## DOCUMENT ANALYSIS

The analysis of school documents encompassed four different types of written material: Physical education policy statement, Student Handbook (1989), class rolls and notes. As these documents were included as data collection methods for different purposes, it is necessary to examine each document separately.

### Physical Education Policy Statement

The Physical Education Department at Lynwood Senior High School has developed a physical education policy statement addressing four areas:

1. Students not participating in physical education;
2. Changerooms;
3. Equipment; and
4. Policy on camps and excursions.

A copy of this statement has been reproduced in Appendix I. This document is distributed only to the physical education staff members at Lynwood Senior High School. No part of this statement appears in the student handbook, which will be examined in the following section. In addition, students and parents do not

receive a statement on physical education at the beginning of each year. Following informal discussion with members of the Lynwood Physical Education Department, it was apparent that it was each staff member's responsibility to verbally inform students of expectations for participation and nonparticipation at the beginning of each year.

The area of concern in the policy statement, for this study, is the first area which deals with students not participating in physical education. It is evident from the statement that the policy regarding nonparticipants requires any student who doesn't participate to bring a note from a parent or guardian. The first point of the document states "Students must bring a note from their parents/guardians to excuse them from P.E. unless the reason is obvious". It appears that the clause 'unless the reason is obvious' is open to student, parent and teacher interpretation. What may be an obvious reason to a student may not be to a teacher. For example, a forgotten physical education uniform may be an obvious reason for a student, but is it a valid reason for not participating in physical education in the view of the teacher? It is also clear by the underlining of 'must bring a note', that staff regard the presentation of notes for exclusion from participation in physical education as important.

However, this message is not communicated to students and parents in a written form. It is only given verbally to the students.

Students who have conditions which prevent them from participating for a lengthy period of time must present a medical certificate to their physical education teacher. Permanent exclusion is addressed by the statement, as summarised above. In addition, those students may be directed to the library for study purposes. Other students who present as nonparticipants must accompany the physical education teacher to their scheduled lesson. The policy also states that nonparticipants may be required to complete work from sport books during the lesson.

### Student Handbook

At the commencement of each school year, every student enrolled receives a Lynwood Senior High School Student Handbook. This document is reprinted every year to enable alterations and additions to be made where necessary. A copy of the section pertaining to physical education has been reproduced in Appendix J. Physical education is only mentioned in the handbook under the section termed 'School Uniform'. The requirements of the physical education uniform are stated in this section.

This is the extent of the coverage of physical education policies in the Student Handbook (1989). There is no mention of requirements for nonparticipating students, as already discussed above.

### Physical Education Class Rolls

The initial step in approaching the analysis of physical education class rolls was to determine the procedure used for marking rolls. All physical education staff at Lynwood Senior High School are required to use a list of fixed descriptors when checking lesson attendance. This is to ensure comparability of roll marking within the Physical Education Department. The descriptors are:

- A - absent
- N - note
- I - no physical education attire
- i - incorrect attire
- L - late

Following discussions with physical education staff members who were involved in data collection, it was ascertained that the procedure for marking rolls served a further purpose. Although not documented anywhere, the Senior Master of physical education undertakes random

"blitzes". This involves spot checks of all students not participating in a physical education lesson without a note on a particular day. Parents of nonparticipating students are telephoned to determine:

1. if they know that their child is not participating in physical education on that day; and
2. the reason why their child is not participating in the physical education class.

The primary function of analysing physical education class rolls was to determine the numbers of nonparticipants in Year 10 coeducational physical education classes over the two week period. Secondly, each class roll was scrutinised from the beginning of the semester up until the point of data collection to ascertain the proportion of nonparticipants in a Year 10 physical education class over an extended period of time. Table 1 presents an analysis of nonparticipant numbers for Year 10 physical education lessons over the two week study period.

TABLE 1

AN ANALYSIS OF NONPARTICIPANT NUMBERS FOR YEAR 10  
PHYSICAL EDUCATION LESSONS OVER THE TWO  
WEEK STUDY PERIOD

Lesson Number	Activity	Weather	Number of Female Students on the Roll	Number of NP's	Percentages of NP's
1	Badminton	Fine	15	3	20.0
2	Golf	Overcast	9	3	33.3
3	Badminton	Overcast	15	5	33.3
4	Weight Training	Wet	10	1	10.0
5	Aerobics	Overcast	22	5	22.7
6	Golf	Overcast	11	5	45.4
7	Softcrosse	Fine	9	2	22.2
8	Weight Training	Fine	11	1	9.1
9	Touch Football	Fine	15	4	26.7
10	Touch Football	Fine	15	5	33.3
11	Aerobics	Fine	22	5	22.7
12	Badminton	Fine	9	1	11.1
Mean					24.15

The two week period yielded a total of 40 nonparticipants from the 12 lessons observed in this study. The mean percentage of female students not participating in each lesson over the two week period of data collection was 24.15%. At this stage, a variable which must be taken into consideration is the weather. As data were collected during the period of transition from winter to spring, it was expected to be cool in temperature with some wet days. This type of weather often causes increases in the numbers of students not participating in physical education for a number of reasons. First, some students do not like participating in an outdoor activity on a cold, wet day. However, it is evident from Table 1 that the only lesson which occurred on a wet day was weight training which is an indoor activity. The second reason is one which requires medical problems relating to the weather to be taken into consideration. During the winter/spring period, there is an increase in the number of students with respiratory problems like colds and influenza. Consequently, this may cause increases in the numbers of students not participating in physical education.

The number of girls on each class roll ranges from 22 in Aerobics to 9 in Badminton, Golf and Softcrosse. The mean percentage of female nonparticipants (24.15%) is relatively high because this indicates that

nearly one quarter of the girls in each Year 10 physical education class are not participating. Table 1 indicates that the activities with the highest number of nonparticipants are:

1. Golf - Lesson 6 (45.4%) with 11 female students enrolled;
2. Touch Football - Lesson 10 (33.3%) with 15 female students enrolled;
3. Badminton - Lesson 3 (33.3%) with 15 female students enrolled;
4. Golf - Lesson 2 (33.3%) with 9 female students enrolled.

There does not appear to be a relationship between the number of girls in each class to the proportion of nonparticipants.

Table 1 indicates the numbers of female nonparticipants for each independent lesson over the two week period. Any student could present as a nonparticipant in any of her physical education classes.

Table 2 presents an analysis of nonparticipant numbers for Year 10 physical education classes over nine lessons. These lessons were the total number of physical education lessons from the beginning of Semester 2 (26th of July) until the completion of data collection (15th of September).



TABLE 2

AN ANALYSIS OF NONPARTICIPANT NUMBERS FOR YEAR 10  
 PHYSICAL EDUCATION CLASSES OVER AN EXTENDED PERIOD  
 OF TIME (26TH OF JULY - 15TH OF SEPTEMBER)

Class	Number of Girls on Roll	Number of Girls with a Note	Number of Girls with No P.E. Attire	Mean Percentages of Female Nonparticipants
1. G.P.E.	15	5	21	19.3
2. P.R.	9	0	12	14.8
3. G.P.E.	10	8	10	20.0
4. P.R.	22	10	19	14.6
5. P.R.	11	12	12	24.2
6. G.P.E.	11	6	10	16.1
7. G.P.E.	9	5	13	22.2
8. G.P.E.	9	6	13	23.4

P.R. - Physical Recreation Unit

G.P.E. - General Physical Education Unit

There are no patterns evident to suggest that physical recreation classes have higher percentages of female nonparticipants than general physical education classes. It does appear that the highest proportion of nonparticipants (24.2%) and the lowest proportion (14.6%) occur in physical recreation classes. However, the classes with the highest proportion of nonparticipants

seem to be those with a small number of girls enrolled.

For example:

1. Physical Recreation Class 5 with an average of 24.2% of female nonparticipants each lesson had 11 girls enrolled;

2. General Physical Education Class 8 with an average of 23.4% of female nonparticipants each lesson had 9 girls enrolled;

3. General Physical Education Class 7 with an average of 22.2% of female nonparticipants each lesson had 9 girls enrolled; and

4. General Physical Education Class Unit 3 with an average of 20% of female nonparticipants each lesson had 10 girls enrolled.

Of the classes with the highest proportion of female nonparticipants, three were General Physical Education classes. Therefore, on further examination it seems that General Physical Education classes have higher proportions of nonparticipants than Physical Recreation classes.

#### Analysis of Notes

It is the policy of the Physical Education Department at Lynwood Senior High School that students not participating in physical education provide a note

from a parent or guardian, "unless the reason is obvious". These notes are collected by the teacher at the beginning of each lesson. It was apparent that storage of notes was up to the individual teacher. The majority of physical education staff read the notes and deposited them in the rubbish bin. One member of staff kept all notes for the length of the semester and then deposited them in the rubbish bin.

Of the 40 nonparticipants who were interviewed, only 11 brought notes from a parent or guardian. As six of these nonparticipants presented on more than one occasion, there were four notes which lasted for an extended period of time. Therefore, the seven notes presented to the various teachers were read and the reason noted. This information is reported in the form of a content analysis of notes, which is presented in Table 3.

TABLE 3  
 CONTENT ANALYSIS OF NOTES PRESENTED BY  
 FEMALE NONPARTICIPANTS

Content	Frequency
No explanation	1
Medical explanation	
- unwell	2
- respiratory problems	1
- musculoskeletal problems	3
Total	7

All notes, with the exception of one, provided an explanation of varying depth as to why the student could not participate in physical education. The varying detail of explanation in notes provides some insight to the attitudes of parents and students to physical education. The following two examples illustrate the varying depth of explanation.

Example 1.

... could x please be excused from sport today.

Example 2.

... x has an operation on her foot coming up at the end of the month and the doctor has advised that there be no unduly (sic) pressure put on them. Could she miss today's (sic) sport please.

Although only a small number of notes were analysed, the process was helpful in determining the importance parents and students place on presenting notes to physical education teachers. It appears that only a few students present notes when they are not participating in physical education lessons. This is supported by Table 8 in the 'Student Interview' section of this discussion, which displays percentages of students presenting notes.

The small number of nonparticipants presenting notes could stem from a lack of parental knowledge regarding the Physical Education Department's policy dealing with students not participating in physical education lessons. As previously explained, there is no information in the Student Handbook regarding the procedure for notifying physical education teachers of a student's inability to participate. It appears to be the teacher's responsibility to verbally inform students of these expectations. Two factors could be the cause of the high proportion of nonparticipants not presenting notes:

1. parents or guardians are unaware of the

procedure dealing with students not participating in physical education lessons; or

2. parents or guardians are unaware that their children are not participating in physical education lessons.

In order to address the problem of a high proportion of nonparticipants not presenting notes, the policy of the Physical Education Department at Lynwood Senior High School, which deals with students not participating in physical education lessons needs to be documented in the Student Handbook. This is an area for future development which will be dealt with in the 'Recommendations' section of this document.

STUDENT INTERVIEWS

The results of the student interviews are reported in table form, supported by descriptive analysis. The student interviews were examined as separate entities for each question, in order to compare numbers of nonparticipants to specific responses. This involved simple tabulation to produce a number of raw data tables, which are presented as Appendix K. However, for ease of interpretation of the results, the process of data reduction was undertaken by establishing categories of responses. This was done by collecting like responses under more general categories. This process of data reduction was double checked with interrater reliability being 95%. This score was attained by a peer examining the raw data, tallying the various responses under categories and then comparing the two sets of categories.

Each table presented in this section corresponds to a question from the student interview schedule. Descriptive statistics in the form of frequencies and percentages have been reported in the tables. The percentages are based on the number of students responding to the specific question. For each question, the number of student responses used for collation of data was either 30 or 40, depending on whether or not

repeat nonparticipants responses were included. Repeat nonparticipants were interviewed every time they presented to physical education as a nonparticipant, because each lesson was treated as an independent situation. It is likely that a student may present to one lesson with a respiratory problem and then the next week present as a nonparticipant by forgetting her physical education attire. When questions could elicit different responses, all responses were included. This relates to questions 4, 5 and 7 of the student interview schedule. However, in the remaining questions, repeat nonparticipant interview responses were excluded, as these questions required individual responses.

The following presentation of the results and analysis of student interviews is sequenced according to the order of the questions in the interview schedule.



TABLE 4

## NONPARTICIPANTS ATTITUDES TO PHYSICAL EDUCATION

Question 1 : How would you rate your attitude towards Physical Education?

Attitude Response	Number of Responses	Percentage
Strongly like	3	10.0
Like	14	46.6
No strong opinion	2	6.6
Dislike	9	30.0
Strongly dislike	2	6.6
Total	30	

Although over half the nonparticipants stated that they liked or strongly liked physical education (56.6%), over one third of the nonparticipants stated that they disliked or strongly disliked physical education (36.6%). With over half the students interviewed indicating that they had positive attitudes towards physical education, it was expected that the general list of factors liked about physical education would out number the list of dislikes. However, by viewing Tables 5 and 6 which present this information, it is evident that the list of factors disliked about physical education is longer and

more specific than the list of likes. The majority of the respondents expressed more than one like or dislike when asked these questions. This is the reason for the differing numbers of total responses in the following two tables. The factors nonparticipants liked about physical education are presented in Table 5.

TABLE 5

## FACTORS LIKED ABOUT PHYSICAL EDUCATION

Question 2 : What are some of the things you like about Physical Education?

Categories of Response	Number of Responses	Percentage of Respondents	Rank Order
Fun	12	40.0	1
Fitness	11	36.6	2
Get out of the classroom	10	33.3	3
Healthy lifestyle reasons	6	20.0	4
Nothing	5	16.6	5
Affiliative reasons	3	10.0	6
Specific sports	2	6.6	7
Knowledge of sports	1	3.3	= 8
Outdoors	1	3.3	= 8
Total	51		

A total number of 51 responses were provided by the 30 students interviewed. The factor most liked about physical education was that it is fun, with 40% of students interviewed expressing this response. Another factor to figure prominently was the fitness-related category (36.6%). Over one third of the nonparticipants liked the opportunity to improve their fitness, which is provided by physical education. It may be inferred that this type of response was expected to be high in the list of likes, with the increased societal awareness of the benefits of fitness and a healthy lifestyle. A separate category was developed for healthy lifestyle reasons which ranks as number 4 on the table. Some examples of responses which were collectively brought together in this category were:

"... it helps to release tension."

"... keeps you healthy."

"... helps you lose weight."

A separate fitness category was established because 36.6% of the nonparticipants specifically expressed fitness-related statements. By combining these two categories, 56.6% of respondents liked the health-related aspects associated with physical education.

The third most liked factor was that it enables students to get out of the classroom environment. Some students felt that it wasn't as hard as subjects taught

in the classroom. It was also seen as a break from sitting in the classroom.

An interesting set of responses to this question was that 16.6% of the nonparticipants didn't like anything about physical education. When asked this question, the responses were "nothing". Upon checking, it is evident that the responses of "nothing" correlated to students who had a negative attitude to physical education in question 1.

Table 6 analyses the factors that students don't like about physical education. It reflects the students' specific and targeted responses to this question. It is important to examine this area in detail, in order to further understand why girls aren't participating in physical education at Lynwood Senior High School. At this point, it is meaningful to recall that during the two week period of data collection, an average of 24.15% of the girls did not participate in Year 10 physical education classes.

TABLE 6

## FACTORS DISLIKED ABOUT PHYSICAL EDUCATION

Question 3 : What are some of the things you don't like about Physical Education?

Categories of Response	Number of Responses	Percentage of Respondents	Rank Order
Uniform requirements	13	43.3	1
Teacher's expectations	11	36.6	2
Specific sports	8	26.6	3
Repetition	6	20.0	4
Teachers have different standards for different students	3	10.0	= 5
The boys are too rough	3	10.0	= 5
Physical activity	2	6.6	= 7
Prefer all girl classes	2	6.6	= 7
Too many boys' sports they can play well and we can't	2	6.6	= 7
The boys make you feel inferior	2	6.6	= 7
Weather reasons	2	6.6	= 7
Scared of injury	2	6.6	= 7
Some chauvinistic male teachers	1	3.3	= 13
Teachers favour the boys	1	3.3	= 13
Embarrassment (low skill level)	1	3.3	= 13
Embarrassment (body)	1	3.3	= 13

TABLE 6 (CONTINUED)

Responses	Number of Responses	Percentage of Respondents	Rank Order
Boys don't include us	1	3.3	= 13
Boys misbehave in this class	1	3.3	= 13
The boys tease us	1	3.3	= 13
Not enough time to change	1	3.3	= 13
Can't work at own pace	1	3.3	= 13
Total	65		

This question elicited an average of 2.2 responses from each nonparticipant with the total number of responses being 65. The two most disliked aspects about physical education were uniform requirements and teacher expectations. Over one third of the girls interviewed expressed responses which are reflected by these two categories.

The current physical education uniform requirements for girls at Lynwood Senior High School are a blue pleated skirt and a pale yellow t-shirt. 43.3% of respondents stated that they were embarrassed at having to wear a short pleated skirt and most indicated that they would rather wear tracksuit pants or shorts. Therefore, in order to encourage increased numbers of

girls to participate in physical education, it may be necessary to modify the uniform requirements. This is an area for future development which will be dealt with in the 'Recommendations' section of this document.

Hopefully, girls feel less embarrassed when participating in physical education lessons, and this could lead to an increase in the number of participants. It could also result in the nonparticipating group comprising only students with permanent or temporary medical problems. In this study, those students will be referred to as genuine nonparticipants.

The second highest ranked category deals with teacher expectations. To further explain, 36.6% of the respondents felt that their physical education teacher's expectations were too high. The majority of this group indicated that some teachers expected all students to be outstanding in all sports. Clearly, this was an aspect that over one third of the respondents disliked about physical education. In Table 6, there are also three other categories related to teachers:

1. teachers have different standards for different students (10%);
2. some chauvinistic male teachers (3.3%); and
3. teachers favour the boys (3.3%).

If all the teacher-related dislikes were brought together under one category, this would rank as the aspect of

physical education most disliked. Over half of the respondents (53.2%) made a statement relating to teachers in answering this question. However, it was necessary to include the four separate teacher categories in order to show the complete situation, and not lose information in the process of data reduction.

A similar situation occurred with boy-related categories, of which there are six, the highest ranked being that the boys were too rough. If all the boy-related categories were combined, this category would become the third most disliked aspect of physical education. A total of 33.1% of respondents indicated a dislike relating to the boys in the class. This was broken down into:

1. the boys are too rough (10%);
2. prefer all girls (6.6%);
3. too many boys' sports they can play well and we can't (6.6%);
4. the boys make you feel inferior (6.6%);
5. the boys don't include us (3.3%);
6. the boys misbehave in this class (3.3%); and
7. the boys tease us (3.3%).

Another factor which may relate to the presence of boys in physical education lessons was that 6.6% of respondents indicated they were scared of being injured in contact sports. This could be linked with the



disliked factor of the boys being too rough in physical education lessons. These stated dislikes of physical education which relate to boys stem from issues arising from coeducational physical education.

By grouping the dislikes into major headings, it was possible to develop a pictorial representation of factors which may be affecting the participation of girls in coeducational physical education.

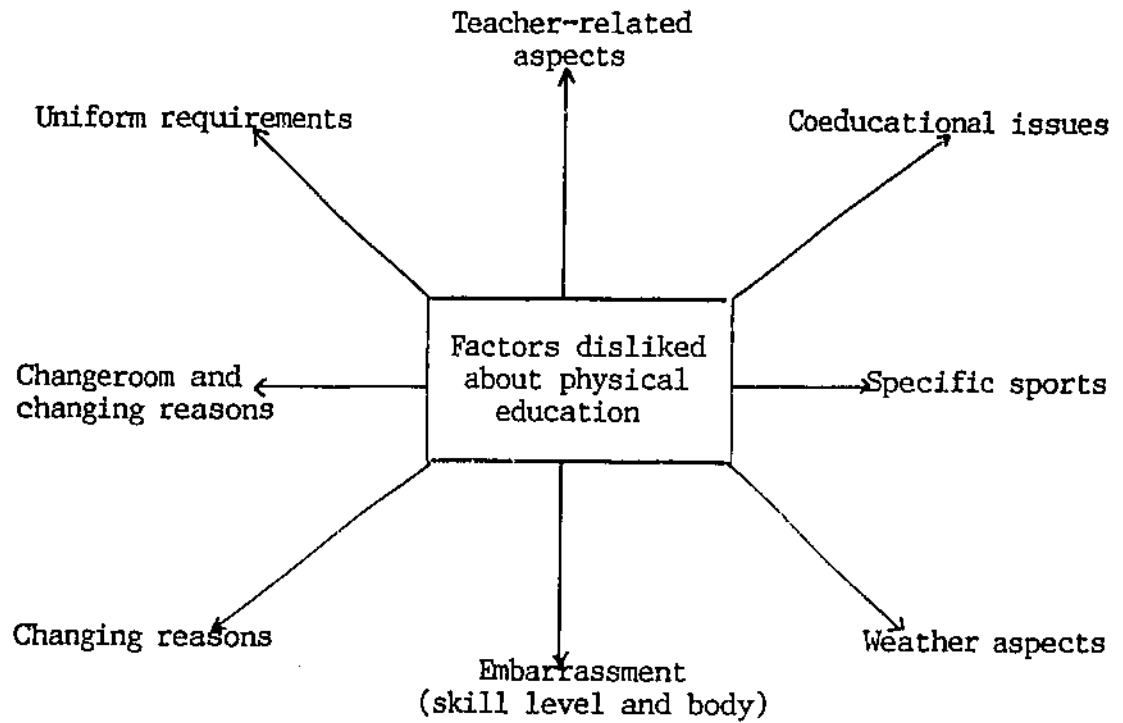


Figure 5. Factors which affect the participation of girls in coeducational physical education at Lynwood Senior High School.

This may be further developed by analysing Table 7, which reports the respondents' specific reasons for not participating in physical education on the day they were interviewed.

TABLE 7

RESPONDENTS' SPECIFIC REASONS FOR NOT PARTICIPATING  
IN PHYSICAL EDUCATION

Question 4 : Why aren't you participating in Physical Education today?

Reason	Number of Responses	Percentage	Rank Order
No uniform	12	30.0	1
Musculoskeletal problems	11	27.5	2
Didn't like touch football	6	15.0	3
Respiratory problems	3	7.5	= 4
Personal problems	3	7.5	= 4
Didn't want to	2	5.0	= 6
Menstrual problems	2	5.0	= 6
Peer pressure	1	2.5	8
Total	40		

The highest ranking reason (30%) was not bringing a physical education uniform. This can be compared to the highest ranking dislike of physical education in Table 6, which was uniform requirements. It may be because girls feel uncomfortable in the short pleated skirt, that they deliberately forget their physical education uniform so that they don't have to participate.

The medical reasons which encompass musculoskeletal, respiratory and menstrual problems were expected responses. An interesting reason provided by 15% of the respondents was that they weren't participating in physical education because they didn't like touch football. This is the third highest ranking category. The problem of a number of respondents not participating because they dislike touch football needs to be addressed. This is further reinforced by examining the results of the question which asked the respondents about the specific activities they disliked. Touch football was ranked as the second highest disliked activity, with 40% of the respondents citing touch football as an activity they disliked.

A number of inferences may be made regarding this dislike of touch football. These are as follows:

1. the girls may perceive touch football, being a modification of rugby, as a "boys' sport";
2. the girls may have difficulty in mastering the skills in touch football with the different shape of the ball; and/or
3. the teachers involved may not have a high level of personal skill or knowledge in the area of touch football. This may affect the presentation and level of the physical education lesson.

However, these are only inferences. Further exploration

in the area of students' reasons for liking or disliking specific sports needs to be undertaken at the local high school level. This is another area for further development which will be examined in the 'Recommendations' section of this document.

An interesting reason provided for not participating fell under the category of peer pressure. Although only one respondent expressed this reason, it was a very real problem to her and is worthy of further explanation. The reason is stated in full below.

"I was the only one amongst my friends who brought their gear and I didn't want to do it by myself."

Table 8 reports the percentage of nonparticipants who presented notes to their physical education teacher.

TABLE 8

PERCENTAGE OF NONPARTICIPANTS WITH AND WITHOUT  
FORMAL NOTES

Question 5 : Did you bring a note excusing you from  
Physical Education?

Response	Percentage of Respondents
Note	27.5
No note	72.5

Through the analysis of the physical education policy, it was ascertained that all students were required to present a note from a parent or guardian, if they were unable to participate in physical education. However, in the content analysis of notes it was clear that only a small proportion of the nonparticipants examined in this study, actually presented notes to their physical education teacher. This is supported by the percentages reported in Table 8, which indicates that during the time frame of the study only 27.5% of nonparticipants presented notes. If such a high percentage of nonparticipants can avoid physical education without presenting a note, it would be assumed that this is the accepted procedure. However, this is not so.

This problem may be occurring due to a lack of

parental knowledge regarding the requirements of the Physical Education Department. As discussed previously, the policy for nonparticipation is not documented in the Student Handbook. It appears that it is the teacher's responsibility to inform students of this requirement. However, from the high proportion of nonparticipants not presenting notes, this is either not occurring or the information is not being passed on from student to parents. In order to decrease the numbers of students not participating without notes, it would be helpful to document the nonparticipation policy in the Student Handbook.

Table 9 presents respondents' opinions of how often they present as a nonparticipant.

TABLE 9

FREQUENCY OF RESPONDENTS NOT PARTICIPATING IN  
PHYSICAL EDUCATION LESSONS

Question 6 : How often don't you participate in  
Physical Education?

Response	Frequently	Occasionally	Seldom
%	13.3	50.0	36.6

63.3% of the girls responded that occasionally or frequently they didn't participate in physical education. It may be inferred that the 36.6% which stated that they seldom miss physical education are the genuine nonparticipants. There may also be some genuine nonparticipants suffering from re-occurring or permanent medical conditions, who stated that they frequently didn't participate in physical education.

#### Additional Questions for Students with Medical Problems

The responses to these questions depended on the individual girl's medical problem. The only information determined from the sets of responses to these questions, which is relevant to this study was that the 15 girls with medical problems were all temporary nonparticipants. The length of time before they could return to class varied from one day for those with menstrual problems to six months for a girl awaiting a heel operation.

It is also interesting to note that of the six repeat nonparticipants who were interviewed more than once, three had medical problems preventing them from participating in physical education. These problems were:

1. a pending heel operation;
2. a back injury; and



3. a knee injury.

Therefore, it is evident that at least three of the repeat nonparticipants were genuine in their reasons for not being able to participate in physical education lessons.

Table 10 presents the results of further information regarding the reasons why respondents didn't bring their physical education uniform.

TABLE 10

RESPONDENTS' REASONS FOR NOT BRINGING THEIR  
PHYSICAL EDUCATION UNIFORM

Question 11 : Why didn't you bring your physical education clothes today?

Reasons	Number of Responses	Percentage	Rank Order
Knew I couldn't participate	15	37.5%	1
Forgot	10	25.0%	2
Didn't like the sport (Touch Football)	6	15.0%	3
Bad weather	3	7.5%	= 4
Personal problems	3	7.5%	= 4
Didn't want to	2	5.0%	6
Peer pressure	1	2.5%	7

It is necessary to closely examine these results, as no uniform was the highest ranked reason for not participating in physical education. Furthermore this relates to uniform requirements which was the most disliked aspect of physical education. Examination of Table 10 seems to indicate two distinct reasons - those which are purposeful and those which are not. The first two reasons could be seen as genuine, acceptable excuses for not bringing their uniform. The remainder of the categories, representing 37.5% of the girls appear to indicate intentional avoidance of participation. It could be assumed that these girls did not bring their uniform on purpose, knowing this would excuse them from participation.

The dislike of touch football is emerging as an important reason for not bringing physical education attire. The students who expressed this as a reason correspond to the students who stated disliking touch football as their reason for not participating in physical education in Table 7. This problem was discussed in the section immediately following Table 7.

Perhaps by introducing tracksuit pants and shorts into the uniform requirements, the girls will be encouraged to bring their physical education uniform as they will feel more comfortable when participating. This has been discussed previously. However, it is also

necessary to address the problem of the students who forgot their physical education uniform. It may be necessary to send a letter to the parents, if a student presents to physical education without her uniform and no note. However, it would not be feasible to do this every time a student forgot her uniform. If a student was recorded in the class roll as forgetting her uniform twice in one semester, then a letter informing the parents should be sent home. This will be documented in the 'Recommendations' section of this report. This may encourage parents to support the physical education policy and at the same time alert them to their child's nonparticipation.

Table 11 presents the girls' opinions of how often they don't bring their physical education uniform.

TABLE 11

RESPONDENTS' OPINIONS OF HOW OFTEN THEY DON'T BRING  
THEIR PHYSICAL EDUCATION UNIFORM

Question 12 : How often don't you bring your change of clothes?

Response	Frequently	Occasionally	Seldom
%	6.6	46.6	46.6

It is evident from the above percentages that nearly half (46.6%) of the 30 respondents felt it was rare that they didn't bring a change of clothes. In addition, only 6.6% of the girls stated that they frequently didn't bring their physical education uniform. Therefore, only a minority of the nonparticipants, on their admission, frequently didn't bring their physical education uniform. It may be inferred that these students are nongenuine nonparticipants who frequently forget or find some reason for not bringing their uniform and consequently do not participate in physical education on a regular basis.

Prior to presenting the results of activity likes and dislikes, it is necessary to state that all the activities displayed in the tables are included in the physical education programme at Lynwood Senior High School. A list of these activities corresponding to Year levels has been reproduced as Appendix C. Table 12 presents the activities particularly liked by nonparticipants.

TABLE 12

## ACTIVITIES PARTICULARLY LIKED BY NONPARTICIPANTS

Question 13 : Which activities do you particularly like in Physical Education?

Activity	Type	Response Number	Percentage of Respondents	Rank Order
Netball	T	13	43.3	1
Basketball	T	11	36.6	= 2
Badminton	I/D	11	36.6	= 2
Tennis	I/D	8	26.6	= 4
Dance	I	8	26.6	= 4
Gymnastics	I	7	23.3	6
Swimming	I	6	20.0	= 7
Softball	T	6	20.0	= 7
Cricket	T	4	13.3	9
Aerobics	I	3	10.0	= 10
Golf	I	3	10.0	= 10
Volleyball	T	2	6.6	= 12
Athletics	I	2	6.6	= 12
Weights	I	2	6.6	= 12
Squash	I/D	2	6.6	= 12
Softcrosse	T	2	6.6	= 12
Australian Football	T	2	6.6	= 12
Touch Football	T	2	6.6	= 12
Table Tennis	I/D	1	3.3	= 19

TABLE 12 (CONTINUED)

Activity	Type	Response Number	Percentage of Respondents	Rank Order
Indoor Cricket	T	1	3.3	= 19
Soccer	T	1	3.3	= 19
Canoeing	I/D	1	3.3	= 19

Key for Type : T = Team Sport  
 I = Individual Pursuit  
 D = Dual Sport

This question elicited an average of 3.2 responses from each of the nonparticipants. Activities have been categorised as a team sport, a dual sport or an individual pursuit. This information was included to ascertain whether or not there was a relationship between the liking of an activity and the type of activity. However, the activities listed by the girls are a mixture of team, dual and individual pursuits with no patterns being evident.

The highest ranking activity was netball, with 43.3% of the respondents particularly liking this sport. This was expected as netball has traditionally been designated as a "girls' sport". Recent research by Browne (1989) determined students' gender perceptions of different

physical activities. The data for this research was drawn from Year 10 students at Lynwood Senior High School. Netball was seen to be a female sport by 51.9% and a neutral sport by 48.1% of the respondents. Therefore, it is not surprising that netball is the most popular activity amongst the nonparticipants in this study. This may be due to the girls feeling knowledgeable and skilful in the area of netball compared to the boys. It may be one of the few sports that the girls can dominate and in which they feel confident in the coeducational situation.

Other traditionally female sports which were expected to be liked by the nonparticipants were activities such as dance, gymnastics and softball. It is interesting to note that these sports were amongst the top 8 in rankings:

Dance being ranked = 4;

Gymnastics being ranked 6; and

Softball being ranked = 7.

In Browne's (1989) survey, dance was perceived to be female by 59.3% of the respondents and neutral by 40.7% of the respondents, gymnastics was perceived to be female by 11.1% of the respondents and neutral by 88.9% of the respondents, while softball was perceived to be female by 7.4% of the respondents and neutral by 92.6% of the

respondents. It is becoming apparent, with the support of Browne's (1989) research, that the activities most liked by the nonparticipants are those perceived as female or neutral. This may be because the girls feel they can either excel or perform equally as well as the boys in these activities, or it may be that girls do not like the sports perceived as nonfeminine. The remaining activities in the eight most liked sports are basketball, badminton, tennis and swimming. Once again, by utilising the figures from Browne's (1989) survey, it is evident that these sports are perceived by the majority of Year 10 students at Lynwood Senior High School to be neutral. The figures are:

Basketball 88.9% neutral;

Badminton 96.3% neutral;

Tennis 100% neutral; and

Swimming 100% neutral.

The first traditional male sport to appear in Table 12 is cricket at a ranking of nine, with 13.3% of the nonparticipants liking this activity. By referring to Browne's 1989 survey, 3.7% of respondents perceived the sport as being a female sport, 59.3% of respondents perceived cricket as a neutral sport and 37% of respondents perceived cricket as a male sport. It is interesting that a traditional male sport like cricket is



now perceived more neutral than male. This may be because of the increase in popularity of women's cricket with Australia winning the 1988-89 World Cup, and indoor cricket being one of the most popular mixed social sports.

As it has been observed that girls like the activities perceived as female or neutral, it is necessary to examine the disliked activities in order to determine any further patterns. The activities disliked by the nonparticipants in this study, are presented in Table 13.

TABLE 13

## ACTIVITIES PARTICULARLY DISLIKED BY NONPARTICIPANTS

Question 14 : Which activities do you particularly dislike in Physical Education?

Activity	Type	Response Number	Percentage of Respondents	Rank Order
Athletics	I	13	43.3	1
Touch Football	T	12	40.0	2
Hockey	T	11	36.6	3
Cricket	T	10	33.3	4
Tennis	I/D	8	26.6	5
Soccer	T	7	23.3	6
Australian Football	T	6	20.0	7
Golf	I	5	16.6	8
Basketball	T	3	10.0	= 9
Dance	I	3	10.0	= 9
Volleyball	T	1	3.3	= 11
Badminton	I/D	1	3.3	= 11
Softcrosse	T	1	3.3	= 11
Softball	T	1	3.3	= 11
Netball	T	1	3.3	= 11
Swimming	I	1	3.3	= 11
Gymnastics	I	1	3.3	= 11
Total		85		

Key for Type : T = Team Sport  
I = Individual Pursuit  
D = Dual Pursuit

Once again, there is no relationship between the type of sport and its ranking as a liked activity in physical education. The activities are a mixture of team, dual and individual pursuits. This is similar to the responses in Table 12, with no patterns being exhibited between the ranking of the sport and the type of the sport.

The most disliked sport was athletics with 43.3% of the girls not liking the activity. Although perceived as 100% neutral in Browne's 1989 survey, athletics is often seen as an area which is repetitive due to the numerous track (running) type events and the inclusion of an annual athletics carnival. There is a considerable emphasis on athletics in most physical education programmes in order to meet the requirements of the school and interschool athletic carnivals. Being the most disliked activity, there are obviously some problems with athletics which need to be addressed. It may be that the teaching approach to athletics is lacking in innovation. If athletics is treated in the same manner year after year, the repetitive aspect of athletics is likely to be compounded. In addition, being mainly an

individual sport with the exception of relays, it provides a threatening situation for girls with low skill levels and low self-esteem. In athletics, only a minority of participants excel, in terms of winning. This serves to be intimidating for those girls who are not as competent in athletics. Consequently, the alternative may be to not participate rather than to risk failing in front of their peers. This causes not only personal embarrassment, but a decrease in self-esteem. Therefore, with all the issues associated with athletics, it is perhaps understandable that it is high on the list of disliked activities.

Other areas to rank highly as disliked sports were touch football, hockey, cricket, tennis, soccer and Australian rules football. It appears that touch football is becoming a problem area at Lynwood Senior High School. Of the girls interviewed, 40% stated they disliked touch football, as shown in Table 13. This view is supported in Table 7 where 15% of the girls stated a dislike of touch football as their reason for not participating. In the survey conducted by Browne (1989), 59.3% of the respondents perceived touch football to be neutral and 40.7% of the respondents perceived it to be male. Being a modified version of rugby, which is a traditional male sport, the girls may perceive it as being more male than female. Perhaps this is the

problem. In addition, the oblong shape of the ball may create problems for the girls in developing skills in this area. The boys, however, have been brought up on this type of ball with Australian rules football and rugby. It could be argued that the girls who are less skilled than the boys feel awkward and clumsy as they attempt new skills in this sport. Table 12 shows that girls prefer activities where their skills equate more closely to the boys. It may be that touch football is not one of these activities. The fact that touch football is the second most disliked activity supports this inference.

The areas of soccer and Australian rules football were also disliked activities with rankings of 6 and 7 respectively. Traditionally, these two sports are regarded as male sports, being areas boys are socialised into at a young age. Therefore, by the time boys reach high school, their skill levels in soccer and football are developed to such an extent that there is a large disparity between male and female skill levels in these areas. Once again, this may provide a potentially threatening area to girls where they are teased about their skill level and often excluded from the play because they are not sufficiently skilled. This may result in nonparticipation or participation at a low level.

Further research at the local level needs to be undertaken in order to understand why some sports are disliked. This could be linked with the survey of student likes and dislikes, which has been discussed in a previous section. As stated this would enable:

1. the development of a physical education programme which meets student needs and interests;
2. the identification of unpopular sports which need reviewing (like touch football); and
3. the identification of sports which may benefit from a single sex setting, but still be offered to both sexes.

#### Repeat Nonparticipants

The repeat nonparticipants' interviews were examined in order to determine the reliability of the interview schedule. It is apparent that the six girls involved responded in a similar manner to the questions each time they were interviewed. The only exceptions were questions 4, 5 and 11 which required the students to provide information about their nonparticipation on the specific day in question. Secondly, on the repeat interviews the majority of the girls provided extended responses. To further explain, the same response to a question was given along with additional information.

This may be because they went away from the first interview and thought of additional comments they wanted to include.

PHYSICAL EDUCATION TEACHER INTERVIEWS

This section presents the results of the corresponding teacher interviews. The data has been collated and reported in a number of tables. The same structure was followed as was displayed in the student interview section. Raw data tables have been included as Appendix L. It was necessary to include additional tables which display different student answers in response to questioning by the researcher and by the teacher. Table 14 presents the teachers' responses to question 1 of the teacher interview schedule.



TABLE 14

STUDENT REASONS VERBALLY PROVIDED TO THE TEACHER  
FOR NOT PARTICIPATING

Question 1 : What was the reason given to you for student X's nonparticipation?

Reason	Response Number	Percentage	Rank Order
No uniform	20	50.0	1
Musculoskeletal problems	9	22.5	2
No reason	3	7.5	3
Personal problems	2	5.0	= 4
Respiratory problems	2	5.0	= 4
Menstrual problems	2	5.0	= 4
Unwell	2	5.0	= 4

As uniform requirements were the most disliked aspect of physical education and the highest ranked student reason provided for not participating, it was expected that this area would figure prominently in Table 14. No physical education uniform was the reason half the girls gave to their physical education teacher. However, in the student interviews only 30% of the nonparticipants provided this reason to the researcher. It appears that there were differences between the reasons for nonparticipation provided to the researcher

and those provided to the teacher. This may be because students know which reasons are acceptable to the teacher. For example, the reason of "I don't like touch football" which 15% of the girls expressed to the researcher (Table 10), was not given to the teacher (Table 14). This may not be an acceptable reason to the physical education teacher, so the girls have learnt to provide an alternative, acceptable reason. In the majority, this alternative reason was a factor relating to no physical education uniform. The differences in reasons are presented in Table 16. However, firstly it is necessary to examine the relationship between the reasons provided to the teacher and to the researcher.

TABLE 15

RELATIONSHIP BETWEEN STUDENT REASONS FOR NONPARTICIPATION PROVIDED TO THE TEACHER AND TO THE RESEARCHER

Response	Same	Different
Percentage	65	35

Although 65% of the nonparticipants did provide the same reason to the teacher and the researcher, there were 35% of the girls who provided different reasons. It may be inferred that the group of girls who provided

different reasons were those who did not have acceptable reasons to convey to the teacher. In addition, these girls may be the nongenuine nonparticipants. It was expected that a number of different reasons would be provided by the repeat nonparticipants who did not have a medical condition or problem. Table 16 presents the differences between student reasons for nonparticipation supplied to the teacher and to the researcher.

TABLE 16

DIFFERENCES BETWEEN STUDENT REASONS FOR NONPARTICIPATION  
SUPPLIED TO THE TEACHER AND TO THE RESEARCHER

Reason Given to Teacher	Reason Given to Researcher
1. Didn't bring a change of clothes.	1. Didn't want to. I don't like touch football.
2. No reason.	2. Personal problem. *
3. Forgot gear.	3. I was the only one amongst my friends who brought their gear and I didn't want to do it by myself. *
4. No gear.	4. I didn't want to, so I didn't bring my uniform.
5. Couldn't be bothered bringing her gear.	5. I felt embarrassed.
6. No reason.	6. I left my phys.ed. gear at my friends - I stayed there last night.
7. No uniform.	7. I have sore muscles.
8. A note stated she was unwell.	8. I injured my ankle.
9. No reason.	9. I hate football. *
10. Forgot uniform.	10. I don't like touch football. *
11. Forgot uniform.	11. I don't like touch football or any of the people in the class. *
12. Forgot uniform.	12. I don't like touch football. *
13. Forgot uniform.	13. I don't like football. *
14. Forgot uniform.	14. I don't want to.

\* denotes repeat nonparticipants responses.

By examining Table 16, it is evident that of the 14 differing reasons provided to the teacher for not participating, 10 of these were related to not bringing the physical education uniform. Therefore, it appears that a lack of physical education attire, for whatever reason, is an acceptable excuse. A number of problems have emerged with regard to physical education uniform requirements at Lynwood Senior High School. These problems have been discussed in preceding sections with recommendations being outlined. Hopefully the suggestion to document the nonparticipation policy in the Student Handbook will result in only students with notes not participating in physical education. Where students present as a nonparticipant without a note, on more than one occasion in a semester, parents should be notified. This recommendation should result in a decrease in the numbers of students not bringing their physical education uniform.

The second factor to be drawn from this table is that there is a strong core of repeat nonparticipants who provided different reasons to the researcher and to the teacher. Of the six repeat nonparticipants interviewed, it is apparent that four of these girls did not have reasons they thought the teacher would accept, on more than one occasion. Therefore, this group of four students appear to fall into the nongenuine

nonparticipant category. They are obviously regular nonparticipants, but this will be confirmed by teacher responses to question 2, which asks whether each student is a regular nonparticipant. This information is presented in Table 17.

TABLE 17

PERCENTAGE OF STUDENTS INTERVIEWED WHO ARE CLASSIFIED AS REGULAR NONPARTICIPANTS BY THEIR PHYSICAL EDUCATION TEACHER

Question 2 : Is student X a regular nonparticipant?

Response	Regular Nonparticipant	Irregular Nonparticipant
Percentage	53	47

It is apparent that the teachers felt that 53% of the girls who presented as nonparticipants over the two week period of data collection were regular nonparticipants. By comparing transcribed student interview schedules to the teacher responses to this question, it is evident that the four repeat nonparticipants who provided different reasons to the teacher and researcher were thought to be regular nonparticipants. As the term regular was not defined for the teachers, it is necessary to supplement Table 17 with

Table 18, which presents the teachers' opinions of how often each regular nonparticipant does not participate in physical education.

TABLE 18

TEACHERS' OPINIONS OF HOW OFTEN THE GIRLS CLASSIFIED AS REGULAR NONPARTICIPANTS DO NOT PARTICIPATE

Question 3 : If so, how often would you say student X does not participate?

Response	Frequently	Occasionally	Seldom
Percentage	37.5	62.5	0

Teachers felt that 37.5% of the regular nonparticipants frequently did not participate. These girls can be classified as either nongenuine nonparticipants or girls who suffer from a medical condition/problem that precludes them from participating frequently. In this category of regular nonparticipants who frequently don't participate, the four repeat nonparticipants discussed previously are included by their corresponding physical education teachers. Table 19 presents the teachers' perceptions of nonparticipants attitudes towards physical education.

TABLE 19  
TEACHERS' PERCEPTIONS OF NONPARTICIPANTS ATTITUDES  
TOWARDS PHYSICAL EDUCATION

Question 4 : How would you rate student X's attitude to physical education?

Attitude Response	Number of Responses	Percentage of Responses
Strongly like	4	13
Like	10	33
Doesn't care	8	27
Dislike	7	23
Strongly dislike	1	3

It was expected that the teachers would say that a large proportion of the girls had a positive attitude (strongly liked or liked responses) toward physical education. This expectation was based on the fact that like any teacher in any subject area, physical education teachers would like to think that the majority of students liked their subject. By examining Table 19, it is evident that the teachers felt that 46% of the girls liked or strongly liked physical education. This figure is lower than the percentage based on students' own perceptions of their attitude toward physical education which is 57%.



The comparison of teacher and individual student perceptions of attitude has been presented in Table 20. Where teacher and student responses were in adjacent categories, these have been treated as similar responses.

TABLE 20  
RELATIONSHIP BETWEEN TEACHERS AND STUDENTS  
ATTITUDE APPRAISAL

Response	Similar	Different
Percentage	60	40

Only 60% of the responses were similar, meaning that the teacher appraisal of the student's attitude and the student's perception of her own attitude were comparable. It may be that many of the girls do like physical education, but because of their behaviour toward the teacher and their lack of participation, the teacher may feel that they do not like the subject. In fact, it may be that they don't like an aspect about the teacher and behave accordingly, resulting in the teacher feeling that they don't like physical education. This can be inferred by considering the large number of teacher-related dislikes in Table 6 which presented the disliked aspects of physical education.

Table 21 presents data which were collected from the members of the Physical Education Department at Lynwood Senior High School at the time of the study. This information represents teachers' opinions regarding the problems underlying nonparticipation by girls.

TABLE 21

TEACHERS' PERCEPTIONS OF THE PROBLEMS CAUSING  
NONPARTICIPATION BY GIRLS

Question 5 : In general, what are some of the reasons/problems causing nonparticipation by girls?

Reason	Number of Responses	Percentage of Teachers Interviewed	Rank Order
1. Embarrassment.	6	66.6	1
2. No motivation and laziness.	5	55.5	2
3. Female sport not seen as important.	3	33.3	3
4. Dislike of a specific sport.	2	22.2	= 4
5. Feel inferior to boys.	2	22.2	= 4
6. Peer pressure.	1	11.1	= 6
7. Ethnic problems.	1	11.1	= 6
8. Not feeling well.	1	11.1	= 6

The highest ranked problem, which 66.6% of the teachers felt was causing nonparticipation by the girls, was embarrassment. This included embarrassment of their maturing bodies as well as skill level. This embarrassment may be compounded by the uniform requirements of a short pleated skirt in which the girls feel self-conscious. This has been supported by uniform requirements being the most disliked aspect of physical education.

It is interesting that the second highest ranked problem (55.5%), was that girls are lazy and lack motivation. This was stated by three female teachers and two male teachers.

Many of the remaining reasons have been discussed in detail in previous sections, however it is worthwhile to focus on the third highest ranking reason which is female sport not being seen as important. Three teachers felt that this was causing nonparticipation by girls. This links back to the social model, whereby girls are encouraged to play with dolls at an early age while boys are given cricket bats and footballs. Socialisation occurs throughout life and the parents' attitudes towards female sport will have a direct bearing on student attitudes. As girls enter high school, the peer group becomes the major group in the socialisation process. All students strive to be accepted by their peer group.

If sport is not seen as important by the peer group, it won't be perceived as important by students, which may be the case for some girls. Many girls, throughout their life are actually being socialised out of sport. In addition, media coverage of sporting events has for a long period of time been dominated by male sporting events. This serves to place a great deal of importance on male sports compared to female sports. This is slowly improving with some female sporting events gaining coverage, however imbalance still remains.

The teachers' responses to this question have served to complete the picture of female nonparticipation in Year 10 at Lynwood Senior High School. The responses have provided supplementary information which has enabled further insight into the problems causing female nonparticipation.

## CHAPTER 5

## CONCLUSION

The following chapter presents concluding statements drawn from this study and has been divided into five sections:

1. Summary of this Research
2. Answering the Research Questions
3. Main Findings
4. Recommendations
5. Postscript

Summary of this Research

The purpose of this study was to determine the factors which ultimately resulted in the nonparticipation of girls in coeducational physical education. It was evident that a concise statement centring on the reasons for female nonparticipation in the mixed setting was required in order to understand the complexity of the problem. The findings from this study will add to the established body of knowledge regarding nonparticipants in coeducational physical education.

In order to examine the problem of nonparticipation, a descriptive analytical study being mainly qualitative

in design was undertaken. Two metropolitan senior high schools were selected on the basis that they conducted coeducational physical education programmes. The pilot study was conducted at Melville Senior High School and the final study at Lynwood Senior High School. The data sources which were utilised in this study were:

1. each Year 10 girl who presented as a nonparticipant in physical education lessons over the two weeks of data collection;
2. the corresponding class teacher; and
3. school documents such as the School Handbook, the Physical Education Policy Statement, physical education class rolls and notes presented to the physical education teacher.

Two interview schedules, following the structured format, were developed to elicit information from the nonparticipants and their corresponding physical education teachers. Analysis of school documents provided background information about the school's nonparticipation policy. In addition, quantitative methods were employed in analysing physical education class rolls. This enabled determination of the numbers of female nonparticipants in Year 10 physical education classes at Lynwood Senior High School. The combination of data collection methods resulted in the development of a more complete picture of nonparticipation by Year 10

girls at the Lynwood Senior High School. It was then possible to gauge the extent of the problem of female nonparticipation at the school.

### Answering the Research Questions

Prior to presenting the main findings of this study from which inferences have been drawn and recommendations put forward, it is important to answer the stated research questions. This section has been sequentially structured following the order of the research questions.

Question 1 : What is the proportion of female nonparticipants in coeducational physical education classes for a designated age group in a selected school?

It was established that an average of 24.15% of female students did not participate in each Year 10 physical education lesson at Lynwood Senior High School during the two week period of data collection.

Question 2 : What are the factors which result in the nonparticipation of females in coeducational physical education?

The main causes of female nonparticipation at Lynwood Senior High School were:

1. not bringing physical education uniform;
2. medical problems; and



3. the dislike of a specific sport - touch football.

In addition, through the student interviews it was found that there are a number of contributory factors. These factors may not directly cause nonparticipation but contribute to the problem:

1. uniform requirements;
2. teacher-related issues;
3. boy-related aspects due to the nature of coeducation;
4. embarrassment due to perceived low skill level;
5. embarrassment due to a maturing body;
6. peer group pressure;
7. weather aspects;
8. possibility of injury in contact sports; and
9. lack of time to change.

Each of these factors, whether they be main causes or contributory issues, will be discussed in detail in answering the corresponding research question.

Question 3 : Does the nature of coeducation lead to nonparticipation?

Although the nature of coeducation was not found to be a main cause of nonparticipation, it appeared to be a contributing factor. When the nonparticipants were asked

to express things they disliked about physical education, six different categories relating to boys emerged which reflected a number of coeducational issues. If these boy-related categories were combined, this would become the third most disliked aspect of physical education with 33.1% of respondents indicating a dislike which was boy-related. The coeducational issues which may be contributing to female nonparticipation are represented in the following diagram.

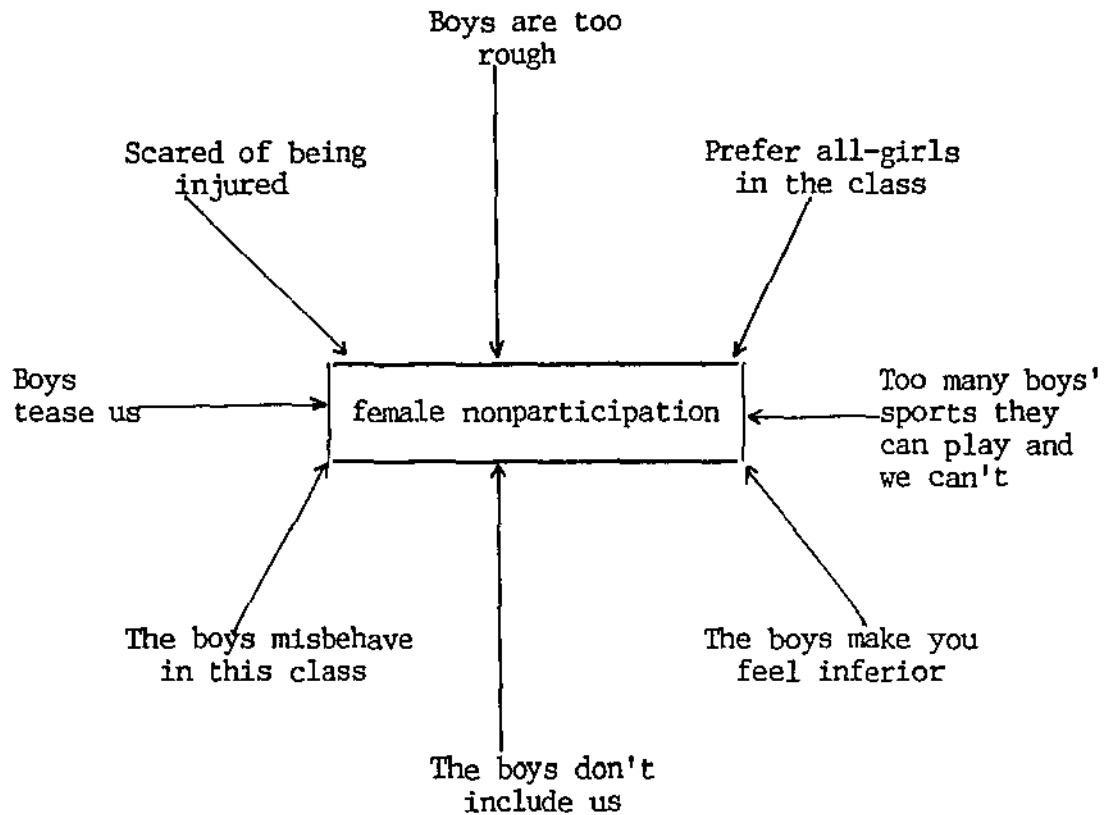


Figure 6. Coeducational issues which may contribute to the problem of female nonparticipation.

Question 4 : Do physical education uniform requirements lead to nonparticipation?

The physical education uniform requirements at Lynwood Senior High School can be classified as a contributing reason for girls not participating in physical education. Of the nonparticipants interviewed, 30% expressed their reason for not participating as

uniform-related. This was further explored by probing into the reasons why the girls didn't bring their physical education uniform. Although there was no mention made of the uniform requirements in this section, the physical education uniform was found to be the most disliked aspect of physical education. It was apparent that 43.3% of the nonparticipants were embarrassed at having to wear a short pleated skirt. A large proportion of this group indicated that they would rather wear tracksuit pants or shorts. Therefore, in order to encourage increased numbers of female participants in physical education, it may be necessary to modify the uniform requirements.

Question 5 : Do changeroom facilities and related changing issues affect nonparticipation?

This did not appear to be a factor which was affecting female nonparticipation. There was only one nonparticipant, who felt that students weren't given enough time to shower and change following the class. This was the only occasion that the subject of changeroom facilities arose throughout the interviews.

Question 6 : Do specific activities lead to nonparticipation?

It was evident that specific activities did influence whether or not some girls participated in physical education. During the two week period of data collection, the activity which appeared to be a main cause of nonparticipation was touch football. Disliking touch football was given as a reason for not participating by 15% of the girls. This activity was also the second most disliked activity with 40% of the nonparticipants not liking touch football.

Question 7 : Does fear of failure lead to nonparticipation?

Fear of failure did not directly appear to be a factor which was leading to nonparticipation. However, it may be inferred that nonparticipation due to a specific activity may be related to fear of failure. These girls may not like a specific sport because they feel they aren't skilful compared to other class members. It may be that they are scared to participate in case they fail in front of their peers.

Question 8 : Does fear of success lead to nonparticipation?

There was no evidence to suggest that fear of success led to nonparticipation in this study. Throughout the interviews, there was no mention of this factor, nor could anything be inferred about fear of success leading to nonparticipation.

Question 9 : Does peer group pressure affect nonparticipation?

In this study, it was apparent that peer group pressure may lead to nonparticipation. Peer group pressure was the main reason one girl gave for not participating. It appeared that student X had intended to participate, but because her friends presented as nonparticipants student X did not participate. Although, peer group pressure could not be referred to as a major cause of female nonparticipation at Lynwood Senior High School, it may be a contributing factor.

Question 10 : Does insufficient time spent in activity lead to nonparticipation?

There was no evidence to suggest that insufficient time spent in activity led to female nonparticipation in this study.

Question 11 : What are the medical reasons which prevent participation?

A number of medical reasons were given by girls for not participating in physical education throughout the two week period of data collection. Medical problems were a main cause of female nonparticipation at the school (40%). These were brought together under three major headings which were:

1. musculoskeletal problems (27.5%)
2. respiratory problems (7.5%)
3. menstrual problems (5%)

The results indicate the percentage of girls who gave a medical reason in that category for not participating in physical education.

### Main Findings

The main findings from this study, make it possible to extend the definition of a nonparticipant into a number of different types of nonparticipants. These are:

1. the repeat nonparticipant - a girl who presented as a nonparticipant on more than one occasion during the two weeks;
2. the genuine nonparticipant - a girl who presented as a nonparticipant with a formal note stating a medical condition or problem that prevents them from participating; and
3. the nongenuine nonparticipant - a girl who presented as a nonparticipant without a formal note and did not bring her physical education uniform on purpose.

The main factors resulting in female nonparticipation at Lynwood Senior High School have been found to be:

1. not bringing the physical education uniform;
2. medical problems; and
3. dislike of a specific sport - touch football.

It was found through the student interviews that there are a number of contributory issues affecting female nonparticipation. These factors may not directly cause nonparticipation but contribute to the problem. The main



factors and contributory issues are diagrammatically represented in the Figure 7.

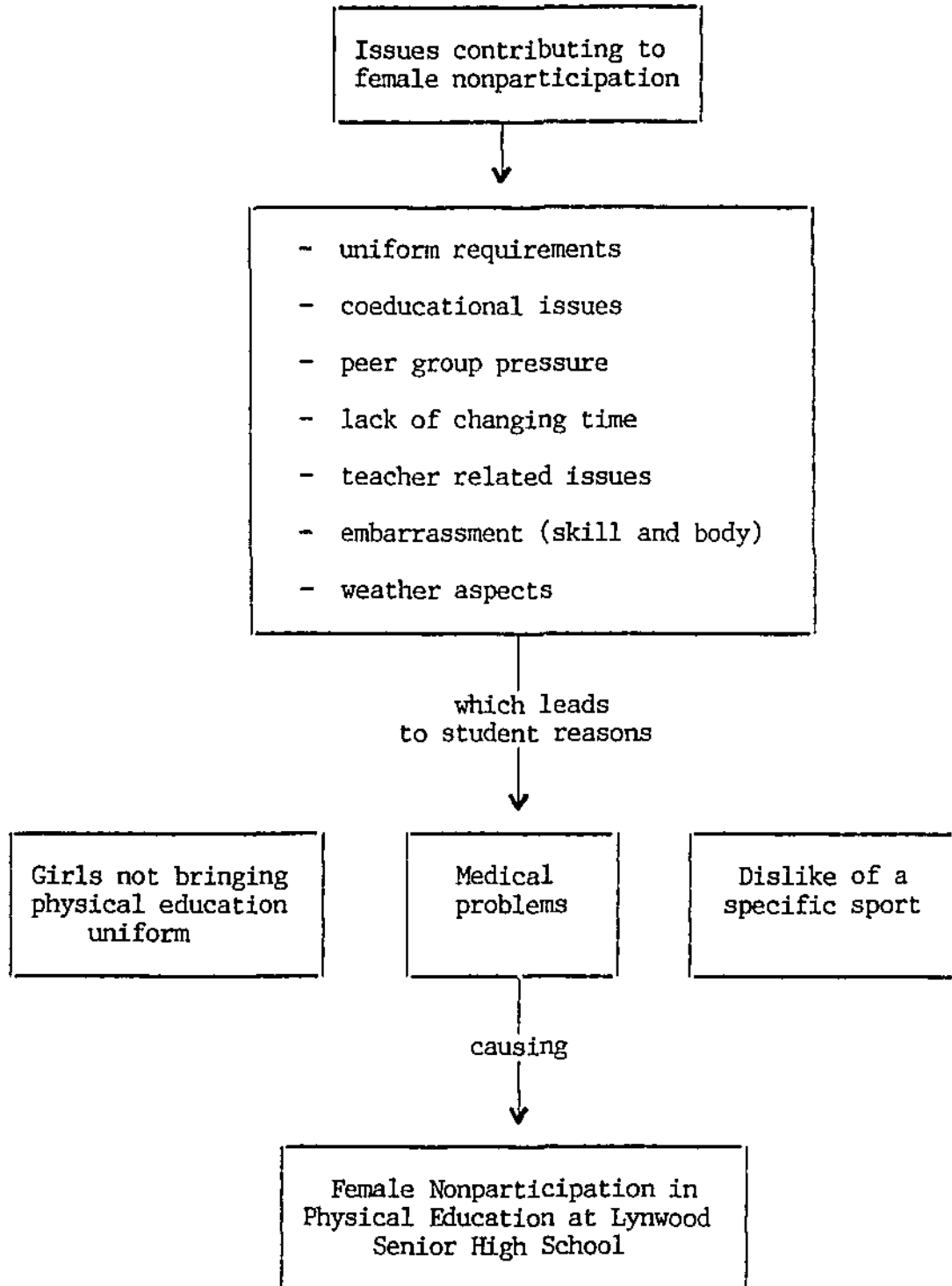


Figure 7. Main reasons and issues contributing to female nonparticipation at Lynwood Senior High School.

Recommendations

The following recommendations have been formulated from the findings of this study. It is hoped, that if implemented, they may increase the participation of females in physical education at Lynwood Senior High School.

Recommendation 1 : That the current physical education policy on nonparticipation be revised to state that all nonparticipating students must bring a note from a parent or guardian.

Recommendation 2 : That the current nonparticipation policy be extended to include a statement on repeat nonparticipants. This could be as follows: To notify a student's parents if she/he presents as a nonparticipant twice in one semester without a formal note.

Recommendation 3 : That the physical education statement in the Student Handbook is modified to include the nonparticipation policy. This will ensure that all families with students attending Lynwood Senior High School have a written statement expressing the procedures for students

not participating in physical education lessons. By providing documentation to parents and guardians, the Physical Education Department will be implementing developed policies. This may assist in decreasing the numbers of nonparticipating students, as parents and guardians would be aware that students should be participating in physical education lessons, unless they present a note.

Recommendation 4 : That the physical education uniform requirements be amended to include blue shorts and tracksuit pants as an alternative to the pleated skirt.

Recommendation 5 : That a student survey of activity likes and dislikes be conducted. This could include a section on reasons for the dislike or like of specific activities. This would enable the Physical Education Department at Lynwood Senior High School to include a variety of sports in their programme, which would meet the needs and interests of their students. It

would also assist in identifying sporting areas which need reviewing if they are to be included in the physical education programme. In addition, it may result in identifying sports which would benefit from being taught in single sex classes, but still be offered to both sexes. Hopefully, with a physical education programme targeted at student needs and interests, the numbers of nonparticipants, both male and female, would decrease.

Although, it is recognised that the findings of this study cannot be generalised beyond Lynwood Senior High School, it is hoped that this research will add to the body of knowledge regarding nonparticipation of students in coeducational physical education.

Postscript

Upon the completion of data collection, informal discussions were held with physical education staff members with regard to the research findings. The physical education uniform requirements for 1990 have been modified and now include tracksuit pants and shorts as an alternative to the pleated skirt.

APPENDIX A

LETTER REQUESTING PERMISSION FROM THE PRINCIPAL  
TO CONDUCT THE PILOT STUDY AT MELVILLE SENIOR  
HIGH SCHOOL

[REDACTED]  
ROSSMOYNE WA 6155

Telephone: [REDACTED]

14th June 1989

Mr Ron Coombs  
Melville Senior High School  
[REDACTED]

Dear Mr Coombs,

I am currently enrolled in the Bachelor of Education (with Honours) course at the Western Australian College of Advanced Education, Mount Lawley Campus.

To satisfy the requirements of this course it is necessary to research an area of interest which will be submitted in the form of a thesis. The topic I have chosen to research is "The Nonparticipation of Year Ten Girls in Coeducational Physical Education". The allocated supervisor for this research is Jennifer Browne, Departmental Co-ordinator of Post Graduate Studies (Physical and Health Education).

This study requires collection of data from a secondary school operating co-educational physical education programmes. I am therefore seeking your permission to conduct the pilot study in Melville Senior High School. This would involve interviewing nonparticipant girls in two Year Ten coeducational physical education classes. The girls being interviewed would be required for approximately ten - fifteen minutes during the lesson time. At the end of the lesson, the corresponding teacher would also be interviewed with the time commitment being approximately five minutes. I would anticipate being present in Melville Senior High School for one day.

I have approached Phil Farmer, the Senior Master of Physical Education and discussed the details of the proposed research with him informally. He is prepared to assist with your approval.

If your require further details, please contact me on the above telephone number.

Hoping you will favourably consider this request.

Yours sincerely,

LISA FARDELL

---

I approve/disapprove of the stated research to be conducted in Melville Senior High School.

Signed

---



## APPENDIX B

LETTER REQUESTING PERMISSION FROM THE PRINCIPAL TO  
CONDUCT RESEARCH AT LYNWOOD SENIOR HIGH SCHOOL[REDACTED]  
ROSSMOYNE WA 6155

Telephone: [REDACTED]

14th June 1989

Mr Frank Greep  
Lynwood Senior High School  
[REDACTED]

Dear Mr Greep,

I am currently enrolled in the Bachelor of Education (with Honours) course at the Western Australian College of Advanced Education, Mount Lawley Campus.

To satisfy the requirements of this course it is necessary to research an area of interest which will be submitted in the form of a thesis. The topic I have chosen to research is "The Nonparticipation of Year Ten Girls in Coeducational Physical Education". The allocated supervisor for this research is Jennifer Browne, Departmental Co-ordinator of Post Graduate Studies (Physical and Health Education).

This study requires collection of data from a secondary school operating co-educational physical education programmes. I am therefore seeking your permission to conduct the study in Lynwood Senior High School. This would involve a maximum time commitment of two weeks, during which time a number of data collection methods would be utilised. All Year Ten coeducational physical education classes would be observed to determine the number of nonparticipating girls in each class. These girls will be individually interviewed during the lesson time. The interview would take approximately ten - fifteen minutes. At the end of the lesson, the corresponding teacher would also be interviewed with the time commitment being approximately five minutes. The final technique used in collecting data would be the analysis of class rolls to determine nonparticipation numbers and patterns.

I have approached Steve Doyle, Senior Master of Physical Education and discussed the details of the proposed research with him informally. He is prepared to assist with your approval.

If you require further details, please contact me on the above telephone number.

Hoping you will favourably consider this request.

Yours sincerely,

LISA FARDELL

---

I approve/disapprove of the stated research to be conducted in Lynwood Senior High School.

Signed

---

## APPENDIX C

LIST OF SPORTS INCLUDED IN LYNWOOD SENIOR HIGH SCHOOL'S  
LOWER SCHOOL PHYSICAL EDUCATION PROGRAMMEGeneral Physical Education

Year 8	Unit 1.1	Coordination Skills Netball Athletics	Unit 2.1	Soccer Tennis Gymnastics
Year 9	Unit 3.1	Volleyball Basketball Football	Unit 4.1	Softball Hockey Fitness
Year 10	Unit 5.1	Softcrosse Cricket Orienteering	Unit 6.1	Touch Football Badminton Tennis

Physical Recreation

Year 9 and 10

Unit 3.4	Water Polo Orienteering Aerobics	Unit 4.4	Karate Cycling Table Tennis
Unit 5.4	Badminton Squash Tennis	Unit 6.4	Golf Canoeing Weight Training

Specialised Physical Education

Year 9 and 10	Outdoor Education (Year 10 only) Dance Netball Soccer Basketball Tennis Volleyball Table Tennis Triathlon Training
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Gymnastics

A specialised gymnastics programme is conducted for students displaying potential in this area. It is conducted for boys and girls throughout all lower school years.

## APPENDIX D

## PILOT STUDY INSTRUMENT

Interview Schedule for NonparticipantsIntroduction

My name is Lisa Fardell and I am doing some research for my studies in physical education. I am interested in finding out the reasons why some students don't participate in physical education classes. From your answers I may be able to put forward some ideas to improve physical education, which may encourage more girls to participate regularly.

General Background

1. Do you like Physical Education? Y N

2. What are some of the things you like about Physical Education?

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3. What are some of the things you don't like about Physical Education?

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Reasons for not participating today

4. Why aren't you participating in Physical Education today?

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5. Did you bring a note excusing you from Physical Education?

Y N

6. Do you not participate in Physical Education very often? (Once a week, once a month?)

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Extra questions for students with medical problems

7. How long have you had the problem? \_\_\_\_\_
8. Do you often suffer from it? Y N  
How often? \_\_\_\_\_
9. Are you being treated by a doctor for it? Y N
10. How long will it be before you can take part again  
in physical education classes? \_\_\_\_\_

Extra Questions for students without a change of  
clothing and no medical problem

11. Why did you forget your physical education clothes  
today?  
\_\_\_\_\_  
\_\_\_\_\_
12. Do you often forget your change of clothes? Y N  
How often? (Once a week, once a month?)  
\_\_\_\_\_  
\_\_\_\_\_

Activity Base

13. Which activities do you particularly like in  
Physical Education? \_\_\_\_\_  
\_\_\_\_\_
14. Which activities do you particularly dislike in  
Physical Education? \_\_\_\_\_  
\_\_\_\_\_

Closure

Thank you very much for your time and co-operation.

## APPENDIX E

## PILOT STUDY INSTRUMENT

Interview Schedule for Physical Education Teachers  
of Year 10 ClassesIntroduction

I am interested in finding out the reasons why some students don't participate in Physical Education classes. By getting your ideas I may be able to put forward some recommendations which may encourage higher participation rates.

1. What was the reason given to you for student X's non-participation? \_\_\_\_\_  
\_\_\_\_\_
2. Is student X a regular non-participant?            Y    N
3. If so, how often would you say student X does not participate? \_\_\_\_\_  
\_\_\_\_\_
4. How would you rate student X's attitude to Physical Education?  

Very	Likes	Doesn't	Dislikes
Enthusiastic		Care	
5. In general, what are some of the reasons/problems causing non-participation by girls? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPENDIX F

FINAL RESEARCH INSTRUMENT

Interview Schedule for Nonparticipants

Introduction

My name is Lisa Fardell and I am doing some research for my studies in physical education. I am interested in finding out the reasons why some students don't participate in physical education classes. From your answers I may be able to put forward some ideas to improve physical education, which may encourage more girls to participate regularly.

General Background

1. How would you rate your attitude towards Physical Education?

Strongly Likes	Likes	No Strong Opinion	Dislikes	Strongly Dislikes

2. What are some of the things you like about Physical Education?

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3. What are some of the things you don't like about Physical Education?

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Reasons for not participating today

4. Why aren't you participating in Physical Education today?

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5. Did you bring a note excusing you from Physical Education?

Y N

6. How often don't you participate in Physical Education?

\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_  
 Frequently                      Occasionally                      Seldom

Extra questions for students with medical problems

7. How long have you had the problem? \_\_\_\_\_

8. How often do you suffer from it

\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_  
 Frequently                      Occasionally                      Seldom

9. Are you being treated by a doctor for it?    Y    N

10. How long will it be before you can take part again in physical education classes? \_\_\_\_\_

Extra Questions for students without a change of clothing and no medical problem

11. Why didn't you bring your physical education clothes today?

\_\_\_\_\_  
 \_\_\_\_\_

12. How often don't you bring your change of clothes?

\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_  
 Frequently                      Occasionally                      Seldom

Activity Base

13. Which activities do you particularly like in Physical Education? \_\_\_\_\_

\_\_\_\_\_

14. Which activities do you particularly dislike in Physical Education? \_\_\_\_\_

\_\_\_\_\_

Closure

Thank you very much for your time and co-operation.



## APPENDIX G

## FINAL RESEARCH INSTRUMENT

Interview Schedule for Physical Education Teachers  
of Year 10 ClassesIntroduction

I am interested in finding out the reasons why some students don't participate in Physical Education classes. By getting your ideas I may be able to put forward some recommendations which may encourage higher participation rates.

1. What was the reason given to you for student X's non-participation? \_\_\_\_\_
2. Is student X a regular non-participant?        Y    N
3. If so, how often would you say student X does not participate?

|\_\_\_\_\_||\_\_\_\_\_||\_\_\_\_\_||  
Frequently                      Occasionally                      Seldom

4. How would you rate student X's attitude to Physical Education?

|\_\_\_\_\_||\_\_\_\_\_||\_\_\_\_\_||\_\_\_\_\_||  
Strongly      Likes      Doesn't      Dislikes      Strongly  
Likes                      Care                      Dislikes                      Dislikes

5. In general, what are some of the reasons/problems causing non-participation by girls? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## APPENDIX H

TIMETABLE OF YEAR 10 PHYSICAL EDUCATION CLASSES  
DURING THE PERIOD OF THE 4TH - 15TH SEPTEMBER, 1989Week 1

Monday	Period 1 (8.55am)	General Physical Education - Teacher A (Badminton)	
Wednesday	Period 3 (10.35am)	Physical Recreation (Golf)	- Teacher B
	Period 3 (10.35am)	General Physical Education - Teacher A (Badminton)	
	Period 6 (1.05pm)	General Physical Education - Teacher B (Weight Training)	
Thursday	Period 3 (10.35am)	Physical Recreation (Aerobics)	- Teacher B
	Period 4 (11.10am)	Physical Recreation (Golf)	- Teacher C
Friday	Period 3 (10.35am)	General Physical Education - Teacher B (Weight Training)	
	Period 6 (1.05pm)	General Physical Education - Teacher B (Softcrosse)	

Week 2

Monday	Period 1 (8.55am)	General Physical Education - Teacher A (Touch Football)	
Wednesday	Period 3 (10.35am)	General Physical Education - Teacher A (Touch Football)	
Thursday	Period 3 (10.35am)	Physical Recreation (Aerobics)	- Teacher B
Friday	Period 6 (1.05pm)	General Physical Education - Teacher A (Badminton)	

\* During Week 2, all Physical Recreation classes doing golf were taken out of school to a local golf course. As a consequence, these classes were not included in data collection in week 2.

## APPENDIX I

## PHYSICAL EDUCATION POLICY STATEMENT

LYNWOOD SENIOR HIGH SCHOOLPHYSICAL EDUCATION DEPARTMENTSTUDENTS NOT PARTICIPATING IN P.E.

1. Students must bring a note from their parents/guardian to excuse them from P.E. unless the reason is obvious.
2. Permanent exclusion is only possible with the production of a Medical Certificate.
3. Students not participating must accompany the teacher to the lesson and remain in the charge of that teacher for the duration of the lesson.
4. Students with permanent exclusion from P.E. for any lengthy period may be directed to the library after consultation with the librarian.
5. Non participating students can be required to do work from sport books during the lesson.

CHANGEROOMS:

1. Supervision is required both inside and outside the changerooms.
2. Students must shower.
3. Names of those forgetting uniforms should be noted and on any further occasion where they transgress they should be given suitable punishment.
4. During winter warm sports clothes, windcheater or track suit, is acceptable dress.

EQUIPMENT:

1. All equipment should be checked both in and out of the store rooms.
2. Storeroom doors should be locked at all times.

## APPENDIX I (CONTINUED)

POLICY ON CAMPS AND EXCURSIONS:

1. All initial proposals must be put forward to -
  - (a) The Senior Master
  - (b) The Senior Staff Meeting
  
2. Proposals should consider the following -
  - (a) The purpose of said camp or excursion
  - (b) (1) Number and sex of students involved
  - (2) Staff required for day and/or night
  
3. Budget - all excursions or camps must be self funding. Do not rely on subsidies either school or Physical Education in initial planning.  
 Programme - a brief outline should be submitted to the Senior Master.
  
4. Administration and Advertising
  - (1) All parents and students should be informed of the excursion or camp by invitation and programme. Initial contact should include - times, costs, a brief programme outline and most important the purpose.
  - (2) List of students attending should be given to each staff member 48 hours prior to leaving.
  
5. Physical Education Staff Consideration:  
 Any student, who in the opinion of a Physical Education staff member, is not deserving of a place on excursion or camp can be prevented from attending.  
 All Physical Education staff will support each other in relation to unco-operative students.  
 Consultation within the Physical Education Department on problem students is recommended prior to exclusion.
  
6. Rules and Regulations.  
 Camps should have a set of Rules and Regulations and appropriate penalties. Excursions and Camps must include all school rules.  
 Appropriate attire for excursions and camps is to be promoted.

(Stephen Doyle)  
SENIOR MASTER PHYSICAL EDUCATION

## APPENDIX J

UNIFORM REQUIREMENTS AT LYNWOOD SENIOR HIGH SCHOOL -  
EXCERPTS FROM THE STUDENT HANDBOOKPhysical Education Uniform

All students are also required to have the school Physical Education uniforms, which are:

GIRLS	AVAILABLE FROM
Blue pleated skirt	School Bookshop
Lynwood sports top	School Bookshop
BOYS	
Navy blue shorts	School Bookshop
Lynwood sports top	School Bookshop

## APPENDIX K

## STUDENT INTERVIEW RESPONSES

The following tables present raw data elicited from students during student interviews.

TABLE 22

## STUDENT RESPONSES TO QUESTION 1

Question 1 : How would you rate your attitude towards Physical Education?

Response	Frequency
Strongly like	3
Like	14
No strong opinion	2
Dislike	9
Strongly dislike	2

TABLE 23

## STUDENT RESPONSES TO QUESTION 2

Question 2 : What are some of the things you like about Physical Education?

Response	Frequency
Nothing.	5
It's fun.	12
You get out of sitting in a classroom.	10
Some of the sports.	2
It keeps you fit.	11
You get to know other students.	1
Learn to cooperate with other other students.	1
You can socialise with other students.	1
Weight loss.	2
You can release tension.	2
It keeps you healthy.	2
I like being outdoors.	1
It increases your knowledge of sports.	1

TABLE 24

## STUDENT RESPONSES TO QUESTION 3

Question 3 : What are some of the things you don't like about Physical Education?

Response	Frequency
I don't like sport or being active.	2
The uniform - (a short skirt).	13
Some of the sports.	8
Teachers have different standards for different students.	3
Teachers expect too much.	11
Some male teachers.	1
Teachers favour the boys.	1
I would prefer all girls in the class.	2
I get embarrassed because I'm not very good at sport.	1
I am embarrassed of my body - people stare during P.E.	1
Too many boys' sports they can play well and we can't.	2
The boys are too rough.	3
The boys don't include us.	1
The boys make you feel inferior as they think they're better than the girls.	2
The boys misbehave in this class.	1
The boys tease us.	1



TABLE 24 (CONTINUED)

Response	Frequency
It's boring.	2
I don't like participating in the heat/when it's raining.	2
Warm-up, run/laps.	3
Scared of being injured.	2
We shouldn't have to repeat sports all the time.	1
There is not enough time to change.	1
You can't work at your own pace.	1

TABLE 25

## STUDENT RESPONSES TO QUESTION 4

Question 4 : Why aren't you participating in Physical Education today?

Reason	Frequency
Flu.	3
Upset friend.	2
Personal problem.	1
None of my friends are participating.	1
Menstrual problems.	2
Forgot uniform.	12
I didn't want to.	2
Sore back.	4
Knee injury.	1
Sore muscles.	1
Ankle injury.	1
Injured finger.	1
Oncoming heel operation.	3
I don't like touch football.	6

TABLE 26

## STUDENT RESPONSES TO QUESTION 5

Question 5 : Did you bring a note excusing you from Physical Education?

Response	Frequency
Yes	11
No	29

TABLE 27

## STUDENT RESPONSES TO QUESTION 6

Question 6 : How often don't you participate in Physical Education?

Response	Frequency
Frequently	4
Occasionally	15
Seldom	11

TABLE 28

## STUDENT RESPONSES TO QUESTION 11

Question 11 : Why didn't you bring your physical education clothes today?

Reason	Frequency
I knew I couldn't participate.	15
I forgot.	10
I don't like touch football.	6
The weather is too cold.	3
Upset friend.	2
Personal problem.	1
I didn't want to.	2
I did, but my friends didn't, so I'm not doing P.E.	1

TABLE 29

## STUDENT RESPONSES TO QUESTION 12

Question 12 : How often don't you bring your change of clothes?

Response	Frequency
Frequently	2
Occasionally	14
Seldom	14

TABLE 30

## STUDENT RESPONSES TO QUESTION 13

Question 13 : Which activities do you particularly like in Physical Education?

Activity	Frequency
Netball	13
Basketball	11
Badminton	11
Tennis	8
Dance	8
Gymnastics	7
Swimming	6
Softball	6
Cricket	4
Aerobics	3
Golf	3
Volleyball	2
Athletics	2
Weights	2
Squash	2
Softcrosse	2
Australian Football	2
Touch Football	2
Table Tennis	1
Indoor Cricket	1

TABLE 30 (CONTINUED)

Activity	Frequency
Soccer	1
Canoeing	1

TABLE 31

## STUDENT RESPONSES TO QUESTION 14

Question 14 : Which activities do you particularly dislike in Physical Education?

Activity	Frequency
Athletics	13
Touch Football	12
Hockey	11
Cricket	10
Tennis	8
Soccer	7
Football	6
Golf	5
Basketball	3
Dance	3
Volleyball	1
Badminton	1
Softcrosse	1
Softball	1
Netball	1
Swimming	1
Gymnastics	1

## APPENDIX L

## TEACHER INTERVIEW RESPONSES

The following tables present raw data elicited from teachers during teacher interviews.

TABLE 32

## TEACHER RESPONSES TO QUESTION 1

Question 1 : What was the reason given to you for student X's nonparticipation?

Reason	Frequency
Unwell.	2
No physical education uniform.	20
Flu.	1
Upset friend.	2
No reason.	3
Cold.	1
Stomach cramp.	1
Back injury.	4
Knee injury.	1
Menstrual problem.	1
Finger injury.	1
Oncoming heel operation.	3



TABLE 33

## TEACHER RESPONSES TO QUESTION 2

Question 2 : Is student X a regular nonparticipant?

Response	Frequency
Yes	16
No	14

TABLE 34

## TEACHER RESPONSES TO QUESTION 3

Question 3 : If so, how often would you say student X does not participate?

Response	Frequency
Frequently	6
Occasionally	10
Seldom	

TABLE 35

## TEACHER RESPONSES TO QUESTION 4

Question 4 : How would you rate student X's attitude to Physical Education?

Response	Frequency
Strongly like	4
Like	10
Doesn't care	8
Dislikes	7
Strongly dislikes	1

TABLE 36

## TEACHER RESPONSES TO QUESTION 5

Question 5 : In general, what are some of the reasons/problems causing nonparticipation by girls?

Reason	Frequency
No motivation.	1
Girls don't see sport as being important (they don't care).	2
Laziness.	2
Peer pressure.	1
Particular dislike of a sport.	2
Disorganised and forgetful.	1
Ethnic issues.	1
Embarrassed about their bodies.	2
They feel inferior to boys in the sporting arena.	1
Illness or injury.	1

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