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Boys' participation in junior secondary school physical education and sport

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BOYS' PARTICIPATION IN JUNIOR SECONDARY SCHOOL PHYSICAL EDUCATION AND SPORT



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Healthway

ANOTHER PROJECT FUNDED BY W.A. HEALTH PROMOTION FOUNDATION

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SECONDARY SCHOOL PHYSICAL EDUCATION
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ABSTRACT

According to social lore, boys are meant to be good at Physical Education and sport. There is, however, increasing evidence to the contrary and it is now essential to consider why boys drop out of Physical Education and sport. There has been a good deal of research and subsequent literature detailing the plight of girls' involvement in Physical Education and sport. However, a dearth of literature and research exists where boys Physical Education and sport are concerned. Out of research comes practical implementation strategies that can be adopted by teachers to create a more favourable learning environment.

Extensive research on boys' Physical Education and sport has been carried out in a number of schools in the Perth metropolitan region as well Western Australian country schools. The schools involved have been randomly selected from a multitude of regions to create a broad cross section of data. They include both government and non-government schools. The participants involve boys in Years 8, 9, and 10. Approximately 40 boys who do not enjoy Physical Education and sport, as identified by their Physical Education teachers, took part in group interviews. From these interviews a questionnaire was developed and completed by over 600 boys in 14 different schools.

There has been some important findings resulting from the research which requires immediate attention:

- Boys have specific needs just like girls.
- Many boys who are not good at sport are ridiculed and humiliated by other boys, and girls.
- A lack of variety in Physical Education and sport may be creating boredom amongst boys.
- Parents' disinterest in Physical Education and sport is causing apathy and disillusionment.
- Boys need appropriate, identifiable, role models.
- Most boys like competition but only when the competition is even.
- Boys want standardised Physical Education to create equality in skill level.
- Many boys dislike to display their bodies in sports attire.

This research addressed such issues and provides detailed analyses, discussion and possible curriculum intervention strategies to minimise boys' attrition rate in Physical Education and sport. By making the environment in which boy's participate in Physical Education and sport a more favourable one, it is also likely to be conducive to positive learning experiences.

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Bunbury Senior High School
Carnarvon Senior High School
Christchurch Grammar
Churchlands Senior High School
Hollywood Senior High School
Kent Street Senior High School
Kewdale Senior High School
Lake Joondalup Baptist College
Nagle Catholic College
Newton More Senior High School
Ocean Reef Senior High School
Prendiville Catholic College

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BACKGROUND TO THE STUDY

The feminist movement has achieved outstanding results by focussing attention on the needs of women and girls. Since the early 1970s just as the second wave of the feminist movement was beginning to flourish, Australian schools have had strategies to help girls. Among the most prevalent are self-esteem programs, mentor programs, maths and science programs and programs for sporting and physical education development. But where are the programs for boys?

Research on boys' education is a vital tool in the quest for gender equity. All aspects of the education system concerning boys need to be investigated and analysed just as girls have been researched in the past. From a physical education and gender equity perspective there has been a noticeable failure to deliver essential programs to the boys who do not excel in sport. According to social lore, boys are meant to be good at sport and physical education. Those who do not conform to these ideals are generally ridiculed and often ostracised by peers. It appears that it is easier for boys to drop out of sport altogether rather than attempt to improve their level of sporting skills for fear of further condemnation and humiliation.

What factors contribute to boys dropping out of physical education and sport and what can be done to make sport and physical education a more pleasant experience for all boys? These are the key issues in dealing with boys' involvement with sport and physical education particularly with respect to the social construction of masculinity from both a school and sociocultural perspective. As investigators, it was with these factors in mind that we decided to embark upon a research project which would address the sport and physical education needs of boys.

LITERATURE REVIEW

The Issues: Masculinity, self-image and self-esteem

In an era of political correctness where equality for women and girls has been at the forefront of equal opportunity agenda, little attention has been paid to boys and their educational and personal development requirements. Recent articles in *The GEN*^{1,2} suggest that boys are missing out and have needs which are not being met. It is not simply a matter of adapting the strategies used to assist girls but returning to the grass roots to determine what the boys' needs are and developing strategies to specifically address them.

Boys are committing suicide at five times the rate of girls, they predominate in special classes for emotional and behavioural disturbances and they are more likely to be early school failures, truants and drop-outs³. But what does all this mean? Maybe boys are confused about their position in contemporary Western society which makes the option to suicide, at the extreme, or rebel against societal expectations appear necessary in appealing for guidance with respect to masculine identity. Drug taking, alcohol abuse and cigarette smoking are prime examples of the lengths to which boys are now prepared to defy rules in order to display their uneasiness and frustration about being male.

It is important to understand that boys are growing up in a society which is very critical of men therefore self-appraisal emphasising fault-finding is a real concern for boys as they battle to establish their personal ideals and identify those set by society. At school this situation is likely to be most evident in the physical education and sport settings for boys who excel at sports and physical activities. Physical education classes often afford them instant approval from peers. Popularity and acceptance into groups are consequences of being good at socially respected, masculinised activities. Western society rewards masculinised sports such as Australian Rules football, rugby and cricket by glamorising and applauding male sporting heroes through media and popular culture. Schools often take a similar approach by praising notable sporting achievements at assemblies yet fail to acknowledge outstanding academic efforts on such regular occasions. As West indicates in his recent study, most schools reinforce this dominant form of masculinity.

Steve reflects the fact that he was a boy growing up in a school in which Rugby League was king. Boys who excelled in music, or dance, or canoeing or literature had to listen at school assemblies while boys who played Rugby League were praised⁴.

This comment draws attention to the paradox that exists for boys and their masculinity. There is, according to the work of Connell⁵, a range of masculinities, some subordinate such as gay men, some marginalised such as indigenous and ethnic groups and one which is dominant, known as hegemonic masculinity. However, boys do share similarities. They are expected to fulfil a male role, "to act as boys, not to act like girls by crying or giggling or being soft"⁶. To be called a girl is one of the worst insults that can be directed at a boy. West argues that "this is the weapon which keeps boys in fear of not being masculine enough"⁷. Boys perceive themselves as distinctly different from girls and they want to feel a strong sense of solidarity with other boys. Aware of their changing bodies boys are concerned about being strong, muscular, and tough enough in a society that champions strength, muscularity and brutality, as demonstrated in the comic book style heroes in films and magazines and on television. These *super hero* identities are readily accessible so boys are frequently confronted with hyper-masculine role models that are impossible to emulate. Feelings of inadequacy and self-doubt

may be harboured along with a poor self-image if boys are ridiculed for not having desirable masculine qualities. Being smaller, weaker, and less physically skilled is usually detrimental to boys' masculine self-image. Therefore the role of the physical educator is important in constructing an environment that is beneficial to the needs of every boy regardless of size, strength, or skill. In terms of curriculum and content orientation physical educators also play an essential role in developing programs whereby students feel a sense of achievement and that positive learning outcomes are taking place. This can be achieved through appropriate activity selection and creating equity within the competitive sporting domain.

Low self-esteem is an element that has been frequently referred to in masculine identity literature^{8,9,10}. It is imperative that research on boys and masculinity takes this factor into consideration by emphasising its importance in terms of masculine development. The socialisation and self-identity implications for a boy with low self-esteem can be devastating because childhood masculine self-images are commonly transferred to adulthood¹¹.

Sport is one of the primary sites for the social construction of masculinity in Western society¹². Therefore sport plays a significant role in the development of a boy's masculine self-image and overall self-esteem. It is one of the main ways that boys feel as though they are developing into men by providing them with a sense of masculinity. Sport has an emotional affirming power upon boys when they experience the euphoria of achieving a personal goal although, unfortunately, it also has the capacity to produce anxiety, ridicule and humiliation. Connell eloquently highlights the euphoria of his sporting youth despite being, in his opinion, less talented at sports than many of his peers.

It is a sensuous experience. I am not very good at cricket, so it doesn't happen very often, but when it does I am enormously exhilarated when I happen to hit a ball hard and with good timing, even if it is caught. I can remember such shots years afterward, notably a hook that went over the boundary on the first bounce; the recollection is no doubt reinforced by the fact that the ball ran up a drain and stopped the game. I am almost equally exhilarated when, bowling, a faster ball swings or cuts and beats the groping bat, whether or not it takes a wicket (usually not).¹³

Accounts such as this provided by Connell are indicative of the pleasure that boys can derive from sport and physical education. They should not be anxiety provoking nor should they create feelings of humiliation for boys. Not only is it vital that boys participate in sport but they should enjoy it as well. Lypsyte emphasised the plight of the less skilled boy claiming that:

Boys are afraid. They are afraid of being humiliated, of being hurt, both emotionally and physically. You can translate that into being hit by the ball and then laughed at. Boys are afraid of being made to look dumb or inadequate in front of girls, on the field or in the classroom. Boys are afraid of each other, and they are afraid of girls.¹⁴

While there have been commendable efforts at both State and Federal level to increase the participation by girls (for example, the creation of the Women's Sport Unit of the Australian Sports Commission, and the Women's Sport Foundation of WA) the most recent comprehensive review of school physical education and sport education, the 1992 Senate Inquiry, reported that "Apart from the ACHPER study no comprehensive data was made available to the Committee about the total sports offered in schools, which schools offered what sport, or participation rates for boys and girls."¹⁵ The ACHPER study to which the Committee referred was completed in 1985. It showed quite clearly that from the age of 12 onwards participation on a weekly basis by boys was less than 60 percent and that up to 30 percent of boys did not enjoy school sport. Few studies have thoroughly investigated participation rates. In a study of non-participation in physical education and sport in two Western Australian government schools Embrey¹⁶ found teachers believed that non-participation by boys was not an issue but interviews with boys confirmed cautions raised by Coles¹⁷ that despite higher participation rates by boys they were subjected to pressures in sport associated with their masculinity such as the need to be competitive and to succeed. Drummond¹⁸ concurred in his research with elite male athletes that men are placed under immense pressure to prove their masculine identity through sport. Further, he claimed that this has been instilled into men from boyhood.

Contemporary literature on masculinity is relatively modest in quantity compared to feminist literature. Further, masculinist literature on boys' education, particularly physical education, is limited. It is arguable that boys have been neglected in terms of research and subsequent literature and despite modest gains being made in this area, feminist studies continue to dominate gender research. Girls' education has been a focal point of discussion over the past ten years producing positive outcomes for girls. Australia adopted a national policy for girls' education in 1987 however, according to West, many people in education are asking "where are the strategies for encouraging boys?"¹⁹

One of the most important documents to be produced in Australia on boys education is the recent O'Doherty report. The report does not deal with boys and masculinity in terms of specific subjects but deals with education in its entirety. The report is an invaluable investigation and lends itself as an ideal forerunner to masculine research into specific subject areas like physical education. The report states that gender-based harassment is significant amongst boys and points out that it is both inter and intra-gender related. Physical education is potentially a subject likely to involve such harassment particularly if boys do not measure up to societal expectations that suggests all males must be competent at sports. Sexual harassment could take the form of the exercise of power over another in order to establish dominance usually for personal gain. For example, the O'Doherty report noted that:

Many boys attempt to establish their sexuality by calling into question the sexuality of those around them. But they also establish dominance over other boys by questioning not just their sexuality, but their masculinity, characterising them as "wusses", or even "girls".²⁰

Further:

The fear of being labelled, or having their masculinity or sexuality questioned, is a key driving force for many boys. Proving their masculinity means being as tough or tougher than their peers.²¹

The report goes on to suggest that boys' harassment of other boys must be dealt with at school otherwise there is a likelihood that the practice could be a precursor of bullying at school, and later in life abusing and dominating family members, wives and children. Too often, it is claimed, boys behaviour is sanctioned by a society in which such behaviour is perceived as "boys being boys". The situation is perpetuated by this same society that holds up aggressive, assertive, physical men as role models particularly where sports are concerned. Once again the media must be closely examined.

The role of the media is particularly important in promoting certain types of masculinity. When we see sporting "highlights", they are often the most violent or dangerous incidents. Commentators tend to acclaim rough or even illegal play; while acknowledging the player deserves to be "sin binned" they titillate us with the replay. They tend to make heroes of the players who are daring enough or rebellious enough to break the rules - even if it involves an opposing player's head.²²

It is imperative that research on boys' and masculinity is followed through. The O'Doherty report is a firm foundation upon which to build and branch out into specific forms of masculine research. However, this report, as mentioned, investigates education as a whole. Education is not commonly perceived as an activity that will enhance a boys masculinity, unless it is physical education. Therefore attention must be focussed on this aspect of education to gain a more comprehensive understanding of boys involvement and the subsequent construction of their masculine identity.

During early adolescence, which equates with the lower secondary school Years 8 to 10, boys have mixed experiences in physical education and sport although it is often wrongly assumed that all have positive experiences which enhance their masculinity. Some boys may actually feel intimidated by physical education and sport because they do not measure up to societal/peer expectations of what a male should physically look like and be capable of achieving in sport. Boys who are skinny, uncoordinated and poorly skilled often abstain from all sport and

physical education because they feel uncomfortable in what they perceive to be a foreign environment.

This research project attempted to identify such boys and consult with them in the design of school physical education to help their physical and social development. It provided an opportunity to consider their health habits such as smoking and alcohol consumption and its relation to their physical activity involvement.

This research indicates that boys are attempting sports which are team oriented and yet they prefer individual activities far more. This has immense implications on the way in which teachers, particularly physical educators instruct their students. Individual activities appear to be the way in which students prefer to be taught because it provides them with a sense of empowerment.

METHOD

The research used mixed mode methodology wherein qualitative and quantitative data were collected to best determine boys' participation in Physical Education and sport. A pilot study was conducted on 2 boys each from Years 8, 9 and 10 to assess interviewing techniques and gain an indication of the types of questions to most appropriately ask. Three schools, all located in the metropolitan region of Perth, were used during this phase. Six boys from each school were interviewed.

The head of the Physical Education department from each of schools involved in the research was initially contacted via telephone and follow-up letters of confirmation and ethics approval forms were sent at a later date. The department heads were contacted once again to organise an appropriate time to interview the boys they had identified as non-participants of Physical Education and sport. The interviews were conducted at the schools in private settings, such as conference rooms or on grassy playing fields, away from other students. This was to provide a comfortable environment in which the boys could feel free to speak uninhibited and answer the questions truthfully. By distancing the interview location away from classrooms and the Physical Education setting it was also an attempt to indicate to the students that the interviewer had no association with the Physical Education teachers or the school.

The interviews were recorded and transcribed verbatim. They were then analysed using an open coding technique and categories of analysis were produced. These categories were the catalysts for creating the qualitatively based questionnaire which was then distributed to 14 different schools including government, non-government, single sex, co-educational, country

and metropolitan schools. The head of the Physical Education department from each of these schools was contacted in the first instance via telephone and followed with a letter of confirmation and ethics clearance forms to be distributed to each of the participants.

The questionnaires were distributed and collected approximately 4 weeks later. They were then statistically analysed by a highly skilled statistical analyst using "Ed Stats", "Excel" and "Statistica" software. The results were then discussed and analysed in terms of their meaning and their relationship to the qualitative data previously attained.

The completed report was sent to participating schools. All schools involved in the study were invited to send a representative(s) to a forum to discuss the findings of the research and discuss practical ways to implement the findings. Unfortunately only six schools were represented, although there were 15 educators in attendance. The outcome was positive and the prospect for ongoing analyses appears promising.

FINDINGS

Interviews

The boys in Years 8, 9, and 10 selected as non-participants of sport and Physical Education by their Physical Education teachers were interviewed to develop a greater understanding about why they do not enjoy Physical Education and sport. The interviews took approximately 45 minutes to conduct and the students were given the opportunity to talk about anything they believed was relevant to Physical Education and sport. However, a guided interview schedule was utilised to ensure that major issues were addressed. The intention of this phase of the research was to develop an understanding, through the participants' rich description, about what it is to be like as a non-participant in Physical Education and sport at school. Further, it was to gain insight into why these boys did not participate. As a consequence of the interviews, and subsequent analyses of the data, a questionnaire was designed to create a more comprehensive picture of boys' perceptions of Physical Education and sport in Western Australia.

The following is a series of sub-headings which outline the most prevalent and pertinent issues raised by the boys within the interviews.

Sports

The boys were participating in a variety of sports in each of the individual schools involved in the research. According to the students, the schools structured their Physical Education program around the traditional sports. Thus, basketball, cricket, swimming, gymnastics, and volleyball were the most commonly cited sports.

The best thing about Physical Education and sport

Keeping in mind the boys involved in this research were selected on the basis of their non-participation in Physical Education and sport it was not surprising to note that positive statements concerning these activities were limited. However, the positive comments that did eventuate were primarily based on the notion of sport and Physical Education being good to "get out of work" or, "a bit of time out" and, "you get out of hard classes, like where you have to write and stuff. You just go out there and muck around". Content was not mentioned at all although, one participant claimed to perceive sport and Physical Education as an opportunity to develop team skills, sportsmanship and, cooperation with others. Further, it provided the "chance for people to do well even if they're not good academically".

What is liked least about Physical Education and sport

The boys revelled in the opportunity to be candid in their assessment of PE and sport as well as factors such as teachers and other students. Unanimously the students concurred that their school sport and Physical Education programs were "boring". Qualifications to explain these "boring" programs were required to which the boys individually responded. Most suggested that it was a lack of choice and the learning and re-learning of the same sports each year (particularly the Year 10 boys) which made the curriculum uninteresting. Again, an enlightened comment came from a boy who enjoyed community based sports but was disheartened by school based sport and Physical Education. He stated that:

When you play a sport and get people that don't like it, like you've got nothing to do other than watch the sport. You've always got people who don't like it and lag behind and just don't want to be there. There should be a separate class for the people that want to do it or a more advanced class. Like, there should be class for the ones who want to do it and are good at it and another class for the people who don't like it as much and they don't have to do as much physical stuff. Like, a lot of people don't like football because there's too much running around so they'd be better off in a class where they do easier things.

Changing clothes was a significant issue for some of the boys. Failure to bring a change of clothes in some Physical Education and sport sessions resulted in punishment in the form of yard duty, time-out or, up class withdrawals which involves the younger student being sent to a Year 12 class for the process of humiliation by the older students. Fear and resentment were a consequence of these actions which meant the student came to dislike teachers and some older students. A portion taken from the interviews indicates such problems.

I: What do you like least about PE and sport?

S: Having to change your clothes. Yeah like if you don't bring them you go to the time out room. Yeah, like if you forget them three times in the whole year you go to time out. Like, you have to change your clothes and if you forget them you get in trouble and sometimes like you do forget them. I forget mine all the time, I haven't done PE for ages, about three weeks I think it is.

I: What happens then?

S: You get time out and up class withdrawals and stuff like that for forgetting your gear. Like at first at the start of the year you just sit there and watch everyone and after a while the teacher gets mad with you and sends you to up class withdrawals after like the second time.

I: So, what's it called?

S: Up class withdrawals. Like you go to a Year 12 class and you have to sit there and do some work and all the Year 12s and that like tease you and everything and chuck stuff at you.

I: Really?

S: Oh, not really hurting you or anything.. They used to in Year 8 and that but, you know, in Year 10 they just say stuff to you.

Comments about teachers

The boys noticed a significant difference in the personalities and teaching styles of their Physical Education teachers compared to other teachers in the school. Most of the boys had a positive opinion of their Physical Education teacher but they were not without fault and in some cases were strongly criticised. Noteworthy was the boys' appreciation of cooperation, leniency and, teacher involvement. For example, the same boy who commented on having to go to time-out and up class withdrawals stated his Physical Education teacher:

[was] pretty easy to cooperate with, like he's alright. Like, he says, like a couple of times there I said "oh, I forgot my clothes," and he said "oh, just write down these rules or something and like you won't have to go to time-out or something". Sometimes you forget your shoes and stuff, they have shoes in the PE office so sometimes they let you borrow their shoes so you can play sport and stuff.

Most of the boys perceive their Physical Education teacher as being far more approachable than most other teachers in the school. They agree that Physical Education teachers are more amenable to joking around and having fun compared to other teachers. However, the most highly regarded Physical Education teachers were those who were young and prepared to join with the students in a game situation. This is perceived as the ultimate in teacher involvement and thus the teacher either becomes an ally or an opponent, supposedly on equal terms. The following passage emphasises this notion.

I: What do you think of your PE teachers?

S: Mr J. is more approachable because he's younger.

I: So you like PE teachers being younger?

S: Yeah. So that way they can join in with the sport. They don't sit back and just watch and do like the wimpy stuff and just sit back. Because, like sometimes some rules are stupid to some but they help others. Like a lot of the weak people can't do certain stuff like that but when you have a younger teacher you know that they can help because they can play it with you and they can realise what is going on.

I: Do you find that it's fairer when the teacher joins in?

S: Yeah, because they can see what's going on. Sometimes when you look at people you think they're not trying. But when you join in you can see that they're not really that good at it or they don't like it.

I: Do you think people try harder when the teacher is playing?

S: Usually, yeah. Yeah, that's because younger teachers, you can relate to them more because really they are not much older than you.

If you were in charge of school Physical Education and sport, what would you change?

The boys took this opportunity to express their dislike for many aspects of school Physical Education and sport. Most of the changes they would make reflected their plight concerning sport and Physical Education. Some of the changes most commonly advocated are presented in the following.

(i) Learning the basics

The boys were firm in their conviction that they did not want to try and learn too much about the sports that had been chosen as a part of the curriculum. Elements such as intricate skills and complicated game tactics were not high priorities whereas staying with "the basics" and playing a game every session was important. Playing a game was fun and gave the boys the opportunity to run around without the close scrutiny of the teacher and peers commonly experienced during skill development.

(ii) Providing a variety of sports and activities

The need for a greater variety of sports in school Physical Education classes was a unanimous decision by the boys. Comments such as "we need more sports to choose from", "a variation of sports" and, "make everyone go down to the beach" proliferated throughout the interviews. Noteworthy was the negative attitude towards individual competition such as track and field, in contrast to the positive attitude towards competitive team oriented sports as well as individual

non-competitive sports such as surfing, rock climbing and BMX cycling and mountain biking. These attitudes are highlighted in the following comments:

I would have a greater variation of sports. Yeah, more team games. I mean personally I don't like track and field....I really don't enjoy it and when your in a team you are more involved.

Yeah, I reckon if we had more non-competitive sports like rock climbing and stuff I reckon heaps of guys would go for it....I reckon more guys would go for it if you went down the beach and that.

There should be more sports to choose from than the normal ones. Like, surfing, windsurfing and sailing. That would be cool. More guys would do it if that's the sport they wanted to do.

I would let the kids choose their own sports. Let the kids have some say in the sports they play. Some of the sports like football are compulsory and that....But it doesn't really matter because I don't like PE. I only like basketball.

(iii) Ability grouping

Several boys were adamant that school physical and sport should be organised according to the students' ability. As one of the boys stated, "if you had groups they wouldn't feel like they were going to be outclassed because you don't have state swimmers and stuff like that to compete with" Further he went on to claim that:

You would have different competition levels. Like someone who's not very good and they're playing against someone who is better and they know they will be thrashed. Yeah, they are going to feel bad.

The following passage is taken from one of the interviews with the boys and outlines their feelings towards standardised classes.

I: So if you were in charge of PE and sport, what changes would you make and do you think boys would participate more if you made these changes?

S: Yeah. I'd have the more advanced, stronger people, in one class and the people who are less stronger or not as good, and don't like it as much, in another class.

I: Do you think the boys in the lower class would get much out of it?

S: Well we have pathways for Maths and English and that, and so we should have them for sport. Well, in Maths and English you have a test and who gets the

highest pathway depends on how smart you are. Some people are good at some things and others aren't good at anything. Some people lag behind and that annoys them because they are competing with people who are a lot better than them and a lot of the time it just makes them not try. I mean they just sit back and say, "Oh, what's the use of trying when I'm going to get beaten".

I: Do you ever feel like that?

S: Sometimes when I'm playing I feel like, "Oh what's the point in trying to stop them or guard them or anything like that". But if you get someone that is equal to you, you have much more chance and a more even competition with them. So when everyone is together the competition isn't even.

I: Do you all agree with that?

S: Yes....Yeah (unanimous).

One of the boys reinforced the desire that each boy held for increased sport and activity choices whilst, at the same time, providing an insight into the feelings associated with being a less skilled, non-sporting participant boy.

I: If you guys were in charge of PE and sport what changes would you make?

S: The game. You don't have to do it if you don't want to. Yeah, freedom of choice. Find out what kids want and stuff instead of having something like swimming or something. Like, the teachers only have set things that you have got to do. And I would have more activities down on the beach because like I was going to go for a bodyboarding and surfing class and I think I paid for it and everything but I didn't even get it.

I: Why didn't you get it?

S: I dunno, the class numbers were probably too high. When you are no good at stuff you get left out and they put you in anything. And sometimes the class lists are too low which means they cancel that one out.

This is an area of Physical Education and school sport that must be addressed in order to ensure that all students, at some point, have the opportunity of partaking in the activities they have chosen and would like to be involved. It can be devastating for a boy to continually be denied the chance of participating in a desired activity whilst peers enjoy themselves in their chosen activities. Recommendations might be to ask the students to rank activities in which they want to participate from most to least. However, they must place several activities within each rank so that their chance of acquiring a first ranked activity at least once is assured.

Single sex classes Versus co-ed classes

The boys' responses were varied when it came to deciding upon whether single sex classes were better than mixed classes. In many instances they believed that sport and Physical Education was far better when only boys were involved because this meant that they could play full contact sports such as rugby and football as opposed to touch rugby when the girls were involved. These feelings are best described by the boys.

Oh, PE with the girls doesn't really worry me it's just that like when we are playing hockey and with the boys you can bump them a bit but with the girls you don't really want to bump them. You don't really want to bump the girls because you don't really want to hurt them. Some girls just don't play at all they just sit out and hang their head down, or they just stand around and watch the ball go by because they don't want to break their fingernails. It would be more fairer with just boys because like, really boys are a lot stronger than girls and they can take more of a beating than girls because some girls start crying if you bump them. It's alright if you play some games like non-contact sports like tennis even if you've gone down for swimming lessons that's alright because you're not really competing with the girls or anything unless you're racing them. That's alright because you can't hurt them or nothing that way.

One of the boys made an important point with respect to mixed versus single sex classes and body image. Being in an all boy Physical Education class he and most other boys felt quite comfortable in taking their shirts off on extremely hot days. However, he questioned whether they would do the same with girls in the class. He claimed that, "people feel embarrassed when there's girls around, especially if they're not too muscly, they don't like to take off their shirts. I think that's how people feel". Similarly, another boy quickly stated that he would "mind having mixed swimming lessons" for a similar reason. Body image is an important element that must not be overlooked in boys' Physical Education.

Interests outside school and relationship between school and community sport

Some interesting details emerged when the boys began discussing their outside school interests and the relationship between school and community sport. High on the list of priorities for many of the boys were video and computer games whether they be at home on a personal computer or at an amusement parlour with friends. Most boys claimed to do "nothing much" or "hang out". Some said they ride their bike, but they don't ride it other than to the place where they are going to "hang out" with friends. Basketball was a noticeable inclusion in many of the boys' responses. Still, only two or three said they played for a team. This tended to be the case with football as well. Responses such as these, wherein the boys are not overly concerned with competition, reinforces their earlier comments that Physical Education and sport should not emphasise competition but rather place emphasis on individual activities.

Interpretations of competition varied between the boys with some believing that it stood for rules. Therefore those who did not think that competition was desirable stated that games played in school Physical Education and sport would be better if it did not have rules. However, it was these boys who also championed full contact sports such as rugby and football, as well as boxing and wrestling. The boys who wanted non-competitive individual sports but did not mind rules cited sports such as rock climbing, surfing, sailing and freestyle BMX riding. Aggression and anti-authoritarian motives were absent from their comments.

Work commitments became a limiting factor for some of the boys out of school involvement in sport and leisure activities. Several boys mentioned that their parents expected them to work on the weekends, and in some instances, on weeknights after school. Their parents did not perceive sport and leisure activities as being a priority whereas working for financial reward and providing assistance towards the overall family income was important. It seemed the boys had little option other than to adhere to parental expectations and forgo community sport for work.

Relationship between sport and health

The boys' conception of sport and health were fundamental. Most believed that sport meant activity which in turn assisted in one's fitness. Fitness, therefore, was viewed as being an interchangeable term for health. One of the boys claimed that, "Sport gets you fit. When you become a competitor you want to be at your physical best so you eat more healthy foods like salad and things like that". However, there were some boys who did not believe that Physical Education promoted health behaviours nor did they believe that it should. They argued that the role of health promotion should be carried out in health education classes. As one boy stated, "I don't see PE as being a part of encouraging healthy habits. That has more to do with health education".

Role models and heroes

Michael Jordan was the most commonly named hero or role model by the boys. This is understandable coming from the boys who enjoy basketball. However, even the boys who disliked sport completely still named Michael Jordan as the type of person they looked up to. Given that these boys do not enjoy sport and Physical Education it appears that liking Michael Jordan is important to establishing peer group relationships rather than perceiving him as a

model with whom they can identify and aspire to be. Some of the comments about Michael Jordan follow:

I like Michael Jordan because he's everywhere.

Michael Jordan is a real good athlete and plays great basketball and gets paid heaps of money.

Yeah, Michael Jordan. Everyone looks up to Michael, he's the best.

Other heroes the boys related to included footballers such as Tony Lockett, soccer players like Diego Maradona and other prominent basketballers including Shaq O'Neill and Dennis Rodman. Noteworthy was the proliferation of sportsmen the boys admired compared to the dearth of heroes from non-sporting backgrounds. The social acceptance of sportsmen as legitimate role models with which boys are "allowed" to venerate and worship could be an explanation.

Parents

Very few boys claimed to have parents who were supportive and encouraging towards their sporting involvement. Most had come to accept their parents' lack of enthusiasm as normal behaviour. However, there were obvious tones of disheartenment and discontent when they spoke about it. One boy who claimed to be an "A" grade basketballer in a level above his age category had abstained from competition for a year as a result of his parents' disinterest. Although, it seemed their attention was directed towards his older brother who was in the Western Australian State tennis team. As a consequence the boy felt ostracised and that his basketball involvement was not as important as his brother's tennis. The boy then confessed to returning to basketball in the near future in spite of his parents.

S: I like my parents to show an interest like, "What was the score at the basketball game today?" But sometimes they don't do that and that really gets me. My brother plays tennis for the State so they ask him a lot about his sport and when I used to play basketball they just used to like, I played a division above my age group and they didn't really show any interest.

I: How did you feel about that?

S: Oh it sort of puts you down a bit and doesn't make you feel too good. Like, you think you are doing OK because you are playing in A grade and they don't really show much of an interest. Like, they ask sort of "Oh, how did you play today?" But then they just drop it and never ask you again.

I: Because your brother is?

S: (Interrupts) Yeah, at that class in tennis.

I: How did that make you feel, do you try and do better to get their attention?

S: I don't know I'm just disgusted I suppose. But there is not much you can do about it. Like, when I try and play better they still don't know how well I'm playing basketball, so I stopped for a season. But I'm going to play again this year.

I: Well what about now when you get back into it?

S: Now having decided to play basketball again I will start on my own and do it for myself. It doesn't bother me now what they think.

Common replies to questions regarding parental involvement revolved around their mother and father not having enough time to watch or, simply not caring. Some of the boys claimed to have the support of brothers and sisters but this was not comparable to having their parents involved. Individual parents were not singled out as providing more support than the other although, in some instances the boys made it clear, without stating, that they were brought up in a single parent home with their mothers.

Masculinity

Masculinity meant a number of things to the boys. Many of them had stereotypical perceptions of what masculinity is, what it should be, and what a masculine person should look like. For example "masculinity means being tough and strong. It kind of means muscles and stuff like that". Similarly another boy stated that "masculine means being male, being dominant". Further when asked to identify someone who they perceive as the epitome of masculinity the boys' common responses were Arnold Schwarzenegger, Hulk Hogan or Mr T. Each of these men display comic book style physiques which are unattainable to most people. Admiring such comic book style heroes can reinforce a boys heterosexuality to others because the characters display hypermasculine qualities which appear to be so unreal. The boys' identification and positive alliance with characters which display such hypermasculine traits as excessively large muscles and highly aggressive behaviour is an attempt to provide further evidence of their heterosexuality by distancing themselves from anything which may be feminine.

Despite publicly approving of men such as Schwarzenegger and Hulk Hogan, none of the boys claimed to want to look like them. Simply approving of their physiques and their aggressive actions justified their own masculine identity in a small way. Further, the boys did not have many positive comments when asked about their own masculinity. No-one was prepared to confidently claim that they were masculine and that they displayed masculine traits. This may have something to do with the group interviews. However, it does provide an indication of the manner in which peers influence the way a boy acts and talks. Despite the boys regarding masculinity as being a positive aspect in men it may not be appropriate to state their masculinity during boyhood. Ridicule and humiliation are often the catalysts to boys not wanting to discuss their perception of their own masculine identity. On the one hand the boys may be seen as conceited if they claim to be masculine, while on the other hand it could be that these boys do not perceive their masculine identity as being fully developed yet and unlikely to admit such a belief to peers. Furthermore, it is questionable as to whether an adolescent boy would be entirely forthcoming, where their masculine identity is concerned, to an interviewer whom they had never met before. This is just one of the limitations that is involved with such research.

FINDINGS

Questionnaire

The quantitative data are based on analyses of individual answers from a questionnaire comprising 38 questions. The first 30 of these were in the form of a statement and its (apparent) opposite, with the student left to choose, on an integer scale from 1 to 5, the degree to which they agree with the statements. As an example, the first question:

It is cool to be good at
PE/sport at school

1 2 3 4 5

Coolness does not depend
on being good at PE/sport

If the student strongly believed that being good at sport is cool, he would circle the "1", if he strongly believed the opposite he would choose "5", otherwise he would choose one of the "2", "3", or "4". The student was not given any scope for answering in between any of these. He could not choose between 4 and 5, for example. It was immediately evident then, that "3" was the median answer, evenly balanced between the two extremes. These extremes will be referred to as the thesis and antithesis respectively.

Because the study aimed to determine any differences of opinion between the students, one must bear in mind that the mean answer to any question is not necessarily the most popular answer. It is quite possible that a question may polarise the student body to some degree, with

a comparatively small proportion of students holding the mean view, while a disproportionate number hold more extreme (but numerically "balancing") views. It is therefore important to examine the spread of answers as well as the averages.

Although Students t-test assumes normally distributed data sets (ie that the data will follow the "bell curve" distribution), it will nevertheless be used here. This is because it is the standard method of investigating the significance of apparent differences between subpopulations, is by far the most easily understood, and, given the artificial and coarse nature of the data space (integer answers between 1 and 5 only) it is hard to conceive of a more appropriate test which could be expected to fit all the data without artificial "massaging".

What follows is a summary of the appended charts. These list the mean, variance and number of students ("n"), answering each question for each of the "obvious" subdivisions of the data set. Specifically, Government schools as opposed to Non government schools, Metropolitan schools compared to Country schools, and each of the school year groups compared with each other. Obviously, the data in each of these three comparisons sum to the same result. The table entitled "Spread" refers to the percentage of students giving each answer to the questions. The remaining table in each case, with its leftmost column containing "0.95" and "0.99", relates whether the mean of the first stated category is significantly higher or lower than the second category, at either the 95% or 99% confidence level.

Summary by question

Question 1:

It is cool to be good PE/sport at school.

against

Coolness does not depend on being good at PE/Sport.

The mean response of 3.02 shows no particular opinion either way, a result backed up by the distribution of answers.

There were no significant differences between the groups in response to this question.

Question 2:

Boys are meant to be good at sport.

against

Boys do not have to be good at sport.

The mean result of 3.15 suggests a very slight tendency to agree with the antithesis in this case. Although this seems to disappear for Year 9 students (as opposed to those in Year 8), the change is not carried forward into Year 10.

Question 3:

The boys who are good at sport are most popular. against Popularity is not dependant on sporting ability.

A mean response of 3.01 suggests no particular opinion either way, a result confirmed by the data spread.

There were no significant differences between the groups in response to this question.

Question 4:

Men are stronger than women. against Men are not always stronger than women.

The mean value of 2.49 suggests a tendency of students to agree with the thesis. Moreover, this tendency strengthens as they become older, with the decrease in the mean response between Years 8 and 9, and the overall decrease between Years 8 and 10, significant at the 99% confidence level.

In all groupings, the most popular response was of strong agreement (number 1), with fairly similar levels of response at the other stages of agreement moderating the mean.

Question 5:

Boys are better at PE/sport than girls. against Boys and girls have the same ability in PE/Sport.

The mean response across all students was very close to 3, suggesting neither agreement nor disagreement with the thesis. However, students from metropolitan schools are more likely to agree with the thesis than those from country schools, while, across all schools, as students get older they are far more likely to agree with the thesis.

Question 6:

There should be more PE/sport choices available to students. against There are adequate PE/sport choices available to students.

There was a mean response of 1.69, suggesting a very strong tendency to agree with the thesis. This was the strongest agreement found in the study and is very evident from the spread of data.

There were no significant differences between the groups in response to this question.

Question 7:

It is the teacher's responsibility to choose the sports.

against

It should be the students responsibility to choose the sports they want.

With 53% of the responses being 5, resulting in a mean of 4.05, students were strongly in favour of the antithesis. There was, however, a split between the country and metropolitan schools, with country students not holding the opinion quite as strongly.

Question 8:

PE teachers are more concerned about girls PE/sport programs.

against

PE teachers are equally concerned about boys and girls PE/sport programmes.

Data spread for this question shows that students tended to either be neutral or to strongly favour the antithesis, resulting in a mean response of 3.36. Students in metropolitan schools also tended to favour it more than those in country schools, although both groups gave an average score of greater than 3.

Question 9:

Boys should do more PE/sport.

against

Boys should do less PE/sport.

There seems to be more support for the thesis than the average of 2.24 indicates, with only 8% of all students giving any support to the antithesis. Question 6, where 7% of the students gave such support, had an average of only 1.69, because of a very great proportion of responses in strong support, not in evidence here.

Year 9 students do give it more support than others, but while this is significant in the comparison with Year 10, there is no long term change present.

Question 10:

PE/sport should be compulsory in schools.

against

PE/sport should be electives in schools.

Even more than Question 9, the main response for this question was strong agreement with the thesis, with 45% of the students giving a score of 1. The remainder were more or less evenly distributed over the other options, resulting in an average of 2.27. There is a significant move towards the antithesis as students get older, the increase observable as students move from Year 9 to Year 10.

Question 11:

It is up to the teacher to make the students do PE/sport.

against

It is the choice of the students to do PE/sport.

There was a fairly consistent response to this question right across the spectrum of options, resulting in an average of 3.31 - marginal agreement with the antithesis.

There were no significant differences observed between groups.

Question 12:

When planning the PE curriculum teachers don't think about students.

against

Teacher always think about student needs when planning the curriculum.

The most popular response to this question was the neutral 3, chosen by approximately 40% of the students in each category, with the remainder spread quite evenly across the other options.

This resulted in a mean score of 2.95, with no significant differences between the categories.

Question 13:

There should be more contact sports for boys.

against

Boys don't need contact sports.

The most popular response was strong support for the thesis, with only some 15% in favour of the antithesis, reflected in the mean of 2.26. With this distribution consistent in all groups, there were no significant differences observed between them.

Question 14:

Boys enjoy doing PE/sport.

against

Boys don't enjoy PE/sport.

Only 3% of the students supported the antithesis in this case, with 73% supporting the thesis. This pattern was consistent across all the groups and the resultant mean score of 1.88 was the second most emphatic seen in this survey.

Question 15:

The teacher is the main reason for liking PE/sport.

against

The teacher is the main reason for disliking PE/sport.

Across all groups the most popular answer was neutral, with the data spreads seemingly following the normal distribution except for peaks, of 18% to 20%, strongly supporting the antithesis. This has, somewhat anomalously, pushed the mean up to 3.24. The true picture would seem to be that most students have no particular feelings either way, except for a strongly disaffected 10% or so who skew the results. This is more evident in the non government schools, whose students are more likely to support the antithesis than those in government schools.

Question 16:

Students should not have to change their clothes for PE/sport.

against

Students should be made to change their clothes for PE/sport.

The data spread here was decidedly non normal, with peaks at the extremes and in the centre, but with fewer students having only moderate support for the two statements. Easily the most popular option was of strong support for the antithesis. Neutrality was usually the second most popular, but strong support for the thesis was typically close behind. The mean of 3.4 then, while reflecting the overall trend of the data, obviously does not give an indication of the range of feeling on this issue.

While there is very little difference between the attitudes of Year 8 and Year 9 students, those in Year 10 are much more likely to support the antithesis. Their mean response jumps from 3.26 to 3.66, as the proportion in favour of the thesis drops from 31% to 22% and those in favour of the antithesis rises from 48% to 58%. Students at non government schools are also more likely to support the antithesis than those at government schools.

Question 17:

Team games are better than individual sports.

against

Individual sports are more challenging.

The mean value of 2.07 properly indicates the strong support for the thesis displayed in all groups. Nevertheless, metropolitan school students are statistically more supportive than those in the country.

There is a confusing trend evident in the data when sorted by school year. T-test scores show that Year 9 students are more likely to support the thesis than those in Year 8. Year 10 students though, are much more likely to go the opposite way compared with the Year 9s. The net result is that Year 8 and Year 10 students give, statistically, the same response.

Question 18:

Boys enjoy community sport better than school PE/sport.

against

School PE/sport is more appealing to boys than community based sports.

With only some 8% to 12% of students supporting the antithesis, the mean response of 2.17 demonstrates the support the students showed for the thesis. Again, though, the distribution was not smooth, with fewer students showing only moderate support than those who were neutral

There were no significant differences between the groups in response to this question.

Question 19:

Teachers should join in games with students where possible.

against

Teachers should not participate with the students.

While the mean of 2.51 suggests general, moderate support for the thesis, there were, again proportionately fewer students actually in moderate support than those in strong support or neutral. In all cases, some 12% to 20% of the students were strongly in favour of the antithesis.

There were no significant differences between the groups in response to this question.

Question 20:

Boys should be graded by their level of ability in PE/sport.

against

All boys should play PE/sport together regardless of their ability.

The data spread was quite even across all possible responses to this question, except for those in Year 8, where the distribution rose at the extremes and actually fell in the centre, suggesting students are quite polarised on this issue. The only provable difference in distributions is for the non government school students, who were more likely to favour the antithesis than their government school counterparts. The average response was 2.84, quite neutral.

Question 21:

Younger PE teachers are better because they are more enthusiastic.

against

Older PE teachers are better because they have more experience.

In this case strong support for the thesis was almost matched by neutrality as the most popular response overall, with the order varying depending upon the particular group being examined. The result was a mean of 2.24, with non government school students showing even greater support for the thesis than those in government school. Like Question 17, Year 9 students tend to show more support than those in Year 8 and Year 10, with no net difference between these two groups.

Question 22:

PE teachers are too authoritative.

against

PE teachers do not provide enough discipline.

Students are generally quite neutral on this point, with some 53% choosing response 3. Those who have an opinion tend toward the thesis though, demonstrated by the mean of 2.63. Again, when broken down by year group, Year 9 students show greater support than either their younger or older counterparts, who in particular were almost neutral overall. Non government school students were also more in agreement, as were the metropolitan students in comparison with those from the country.

Question 23:

PE/sport should be all boy and all girl classes. against PE/sport should have mixed classes.

Evidently a contentious question, the mean of 3.11, bare support of the thesis, does not indicate the great spread of responses. While both government and non government schools had 24% of their students remaining neutral, the former had 33% in favour of the thesis and 22% for the antithesis, while the latter had 17% and 39% respectively. On mean values, this resulted in support for the thesis for the one (mean of 2.79) and the antithesis for the other (mean of 3.47).

Question 24:

PE teachers help students find outside sporting clubs. against PE teachers don't care about students sport outside school.

Year 9 students continued to defy trends here. With most groupings, and the overall pattern showing students to be neutral, they had as many students offering strong support for the antithesis as those not offering an opinion, resulting in a significantly higher mean (3.34) than Year 8 (2.91) or Year 10 (2.99). Non government students are more likely to support the antithesis than those from government schools, but not to the same extent.

Question 25:

School PE/sport provides opportunities to try new sports. against School PE/sport only provides opportunities to try traditional sports.

The mean of 2.14, indicating strong support for the thesis, is representative of the spread of data. There were no significant differences between the groups in response to this question.

Question 26:

Boys are becoming tired of the same sports and want to try different ones. against Boys enjoy the traditional sports the most.

The spread of data is indicative of general support for the thesis, with a mean of 2.17. The Year 9s again, are more supportive than others, but this does not carry through.

Question 27:

Boys join community sports clubs because of sports they tried in school PE/sport.

against

School PE/sport has not motivated me to join a community based sports club.

Year 8 students are more likely to support the thesis than those in later years, as are country students in relation to those in metropolitan schools, and government based students relative to non government students. Overall, the mean was a quite neutral 2.88.

Question 28:

PE/sport influence my health and fitness.

against

PE/sport do not affect my health and fitness in any way.

There is strong support for the thesis across all divisions of the data, with an overall mean of 2.08. The students in Year 8 are significantly more emphatic than those in later years, with a mean of 1.88. This disappears in Year 9, but, unlike some other questions, does not then return.

Question 29:

School PE/sport has taught me about the negative aspects of cigarettes and alcohol.

against

School PE/sport could do more to teach me about the negative aspects of smoking and alcohol.

There is slight support for the thesis here, stronger for government school students (2.70) than non government school students (2.86), and for those in Year 8 (2.68) compared to Year 9 (2.88). The difference between those in Year 10 (2.76) and the earlier years is not significant in either case. They match the mean of 2.77.

Question 30:

PE teachers are good role models of health and fitness.

against

PE teachers are not good role models of health and fitness.

There was general support for the thesis here, with the overall mean of 2.63 bettered by metropolitan students (2.55) opposed to country students (2.71) and Year 9s standing back (2.76) compared to Year 8s (2.59) and Year 10s (2.56).

Question 31:

I play PE/sport (yes/no)

Overall, only 3% of the students questioned answered "no" here. The proportion of students answering "no" in the various groupings:

government school students: 4%

non government school students: 1%

country students: 2%

metropolitan students: 3%

Year 8 students: 3%

Year 9 students: 4%

Year 10 students: 2%

Question 32:

My school PE/sport is (mixed/boys only)

Overall, 26% were in mixed classes, the remaining 74% being boys only. The proportion of students in mixed classes for each of the groupings:

Government school students: 17%

Non Government school students: 36%

Country students: 47%

Metropolitan students: 6%

Year 8 students: 25%

Year 9 students: 30%

Year 10 students: 24%

Question 33:

I try getting out of doing PE/sport (1 = Always, 4 = Never)

With 69% of students stating that they never try to get out of PE/sport, the mean here was a very emphatic 3.59. There is evidence though, that as students get older, they do try to get out more often, the mean falling from 3.65 in Year 8 to 3.49 in Year 10.

Question 34:

School PE/sport is better than community sport (yes/no)

The overwhelming opinion here was in the negative, only 20% of students voting "yes".

Broken into groups (proportion voting "yes"):

government school students: 23%

non government school students: 16%

country students: 22%

metropolitan students: 17%

Year 8 students: 22%

Year 9 students: 17%

Year 10 students: 20%

Question 35:

I smoke cigarettes (1 = once a day, 4 = never)

With 86% of the students answering "never" the mean response was a very strong 3.74. Although there seems to be a softening from 3.81 in Year 8, to 3.72 in Year 9 and 3.68 in Year 10, there were in fact no significant differences between any of the groups in response to this question.

Question 36:

I drink alcohol (1 = once a day, 4 = never)

While the mean of 3.43 is quite high, there was a significant softening of opinion as students moved from Year 8, with a mean of 3.62 to Year 9, with a mean of only 3.39. There was no meaningful change from there as they progressed to Year 10.

Question 37:

I try to eat healthy food (1 = all the time, 4 = never)

The mean response was 2.08 - "often", with no significant differences between the groups.

Question 38:

I care about the food I eat (yes/no)

The response here was a consistent 68% answering "yes", except for country students, of whom only 61% cared, opposed to 75% of those in the metropolitan area.

Summary by group

Country Schools against Metropolitan Schools:

Compared with country students, metropolitan students are more likely to feel that:

- boys are better at sport than girls
- it should be the students (rather than teachers) responsibility to choose their sports
- teachers are more balanced in their concerns about boys and girls sports programmes (as opposed to favouring the girls)
- more likely to favour team games over individual sports
- more likely to feel teachers are too authoritative
- less motivated by school sport to join a community club
- more likely to see teachers as good role models of health and fitness
- feel they care about the food they eat.

Government against Non Government:

Compared with Government school students, Non Government school students are more likely to feel that:

- the teacher is main reason for disliking sport
- students should be made to change for sport
- boys should play sport together regardless of ability
- younger teachers better because more enthusiastic - over experience (very significant)
- teachers are too authoritative
- sport classes should be mixed (very significant)
- teachers do not care about sport outside school
- less motivated by school sport to join a community club
- school sport could do more to teach about negative aspects of smoking and alcohol

Younger against Older:

Compared with Year 8 students, Year 10 students are more likely to feel that:

- men are stronger than women (this is very significant) (change is noted after year 8, no change from year 9 to 10)
- boys are better at sport than girls (again, very significant) (there is continuous change, significant after Year 8, not significant from Year 9 to 10, but highly significant when Years 8 and 10 are compared)
- sport should be an elective (only significant after Year 9)
- students should be made to change for sport (very significant) (only significant after Year 9)
- less motivated by school sport to join a community club (noticeable after Year 8, no change from Year 9 to 10)
- sport does not affect health/fitness in any way (very significant) (noticeable after Year 8, no change from Year 9 to 10)
- try to get out of sport more often (a continuous change seems to occur, but is only significant when Years 8 and 10 are compared)
- drink alcohol more often (very significant) (noticeable after Year 8, no change from Year 9 to 10)

DISCUSSION

Traditional sports such as basketball, football, netball, and rugby are played at most secondary schools in Western Australia. For the schools involved in "The Boys' and Physical Education Project" the data provides little indication to suggest these schools are different. Specific elements of the Physical Education programs may be different although in many respects the sports, teaching methods, and the time allocated to learn each sport are generally the same. Some of the boys are experiencing these sports for the first time whereas for others, it is a repeat experience. Despite such sports being the most common and widely accepted in society, boys now have far more sport and leisure options available to them than ever before. Consequently, the traditional sports do not hold as much appeal as they once did. Hence, boys are becoming bored with school sports and physical education activities. It appears increasingly that boys are attempting seemingly more exciting sports and leisure pursuits away from the school environment such as in-line skating, surfing, abseiling, and even Bungee jumping. Physical educators have a difficult task in front of them instilling enthusiasm in boys particularly where traditional school sports are concerned. That is, how does one compare in-line skating with rule oriented cricket, or freestyle mountain biking with technique driven gymnastics? It is impossible to implement all of the sports advocated by the students because

of the logistical, financial and ethical reasons as well as factors associated with hygiene and safety. However, a time to reassess the Physical Education curriculum in terms of its overall ability to satisfy the needs and desires of all boys is imminent. The National Association for Sport and Physical Education has identified the shortcomings of contemporary Physical Education curricula and acted accordingly to create more excitement within Physical Education classes. It has introduced an in-line "skate in school program" wherein students are given the opportunity to learn the correct methods of in-line skating along with all the associated safety precautions. It is envisaged that such a course will help Physical Educators bring students' enthusiasm for in-line skating into Physical Education classes whilst teaching the students' the correct and safest method of in-line skating for their recreational use away from school. .

There are many boys who are dissatisfied with school Physical Education and sport. The boys who were interviewed in this research provided a number of poignant indicators to explain their reasons for such discontent. Some of the explanations were a direct consequence of changeable factors such as a dislike for the sports being offered, curriculum content, and teachers' attitudes and their willingness to participate. Other factors to explain the boys' aversion towards Physical Education and sport cannot be so easily changed. Social class, economic status, family background, including parental involvement and encouragement were some of the elements the boys had no control over. For some, involvement in sports and other leisure activities away from the school was often thwarted by having to work after school and on weekends. As a consequence sport became a perceived waste of time, even at school, because the boys were unable to pursue the activities further during their own leisure time. The impact of parents' lack of enthusiasm and encouragement upon the way boys regarded school sport and Physical Education was significant. The result of such phenomena was the boys' non-participation in Physical Education and sport through lack of motivation and perceived worth of physical involvement.

Sport is a major site for the social construction of masculinity in boys. The boys who are good at sport are often afforded the privilege of being popular amongst peers thereby enhancing such elements as self-esteem, self-image, and masculine identity. Boys who are not good at physical education and sport are often ridiculed which in turn affects the manner in which they perceive themselves as males. As a consequence, they are likely to search for other ways in which to express their masculinity. For some this comes in the form of anti-authoritarian acts such as violence, aggression, graffiti, and consuming alcohol, cigarettes, and drugs. Such acts are regarded by these young males as being the epitome of masculinity. On the other hand, there are academically oriented boys who find solace in being surrounded by just a few close friends and who are very similar to themselves. That is, these boys are generally academically oriented and computer literate as well. The boys in the research referred to them as "computer dorks", and included themselves.

The problem faced by the boys who do not involve themselves in sport is that they make future involvement in sport and physical activity more difficult. By increasingly disassociating themselves from sport, they are making it harder to develop skills that will make them more proficient at the various sports available to them. Without these skills the boys are not going to want involve themselves in the sport for fear of further ridicule and humiliation. Therefore the most logical and easy option available to them is to totally abstain from sport and physical activity. By abstaining the boys are not emphasising their lack of skill and therefore are not being ridiculed and taunted by peers. In this instance, their masculine identity has not been threatened although, the other participating boys have positively reinforced their own masculine identity at the expense of these non-participants. Further, the participating boys are likely to develop skills that will enable them to acquire more complex skills in the future. The acquisition of such complex skills is likely to play a major role in enhancing ones' masculine image and positive self-esteem in boys.

Choice of sports

Both the qualitative and quantitative data indicate that boys want a greater choice of sports available to them. Furthermore, they would like to have a more significant input regarding the sports in which they participate. Having a greater choice of sports is appealing to almost every boy. The more skilful boys would perceive this as an opportunity to display their talent in wide and varied fields as well as build upon the increasing repertoire of skills they have developed over the years. However, less skilled boys are likely to see this opportunity in a different light. A choice of more sports provides them with a chance of finding a sport that is suitable to their needs and one in which they feel comfortable being involved. Foremost, however, is the possibility of finding a sport in which they may succeed. However, this does not mean that Physical Education should return to a "smorgasbord" approach wherein sports are continually changed without any programmatic direction. There still needs to be some type of consistent model adopt and adhered to by the Physical Education department in order for positive student outcomes to be attained.

All boys develop differently and at various physiological and psychological rates. Boys who mature early have a distinct advantage over other boys particularly in physical contact sports as well as sports in which muscular dexterity and high levels of eye-hand co-ordination are required. Since the physiological components have developed from an early age such boys are able to utilise these skills in an advantageous manner over other less developed and less skilled boys. Psychologically, boys who develop earlier have a distinct advantage, at that time, where self-esteem is concerned. Their ability to perform motor tasks with comparative ease over boys the same age positively reinforces self-esteem and ultimately masculine identity as a

consequence of ongoing praise and recognition. According to Bee, early developing boys have a distinct advantage over normal and late developing boys.

....early developing boys-should have the best psychological functioning. Early maturing boys are also more likely to be of the mesomorphic body type(broad-shouldered and well-muscled). Since, as pointed earlier, this body type is consistently preferred at all ages, and since boys with this body type tend to be good at sports, the early-developing boy should be particularly advantaged.²³

Boys who develop early often take on a manlike appearance. Muscular and mesomorphic by definition their bodies quickly resemble miniature adults. Further, the appearance of visible facial and body hair set them apart from late maturing boys. Therefore such boys become the envy of peers and someone tangible to aspire towards. These boys, who are held in high esteem, are led to feel good about themselves and thus develop a healthy body-image and positive self-esteem. The same cannot be said for the boys who are small and frail in size and have developed a resultant poor body-image and self-esteem.

Homogenous grouping

Noteworthy was the notion of implementing Physical Education classes and sport based on the students' ability. Despite the prospect of, for most of these boys, being placed in a low skilled group they claimed this to be an ideal method of creating maximum participation for all boys. The boys perceived the current model of physical education and sport as catering primarily towards the more skilled participants and therefore felt neglected as a result. By standardising the classes according to ability the boys envisaged that there existed a greater opportunity to maximise their own involvement, if not at least feel like an integral part of the team or activity. Simply, feeling as though they are an essential team member by fulfilling a particular team function is important in the development of a boys positive self-image. Further, the ability to play sports against others of the same skill level is likely to be far less intimidating and therefore the boys are more likely to attempt activities, skills and plays with the knowledge of being praised for the attempt rather than ridiculed for making mistakes.

The boys did not seem to care that they would be placed in a class in which the perceived level of skill would be somewhat inferior. They argued that there were pathways for subjects such as Maths and English, so why could there not be a pathway for Physical Education and sport. It seems that the academic subjects, with a grading system based on ability, has set a precedent the boys feel comfortable with and would like Physical Education and sport to follow.

Single sex versus co-educational

Single sex, or all boy, classes were far more appealing particularly to the boys who were less skilled at Physical Education and sport. Co-educational classes to these boys represented a site for further humiliation by adding the possibility of being beaten by some of the girls in the class. Even a less than adequate performance might still warrant taunts and ridicule from both male and female peers. Such an occurrence would be highly detrimental towards the social construction of a boys masculinity. Being shown to be less skilled than most other boys, and some girls, a boy is likely to develop an inferior perception of his own masculinity. Therefore his masculine identity will suffer as a consequence. Concerning the boy's sporting involvement, there is a strong possibility that the emotional anguish associated with the humiliation will cause the boy to abstain from sporting activities altogether, not just for the time being, but for the rest of his life. Sport may not be perceived as a site for the social construction of masculinity for such a boy. Rather it may be seen as a site in which his masculinity has been challenged and deconstructed. Therefore returning to such a site might further challenge, and deconstruct, the masculinity which has been established through other sites in his life.

CONCLUSION

What are the specific messages for Physical Educators?

The research clearly indicates through both qualitative and quantitative data that many boys are unhappy with the current school Physical Education and sport models. With too much emphasis placed on traditional, team oriented sports and not enough individual non-competitive activities the boys believe they are lacking both choice and options available to them. This appears to be the major concern in terms of the comments made by the boys and the frequency with which they occurred in the interviews and questionnaire responses. Therefore these are issues which Physical Education teachers need to address particularly with contemporary Western society fostering an ideological viewpoint that encourages variation in leisure pursuits. Consequently, children and adolescents are growing up in a culture that not only provides a multitude of sporting, recreation and leisure activities, but also challenges them to seek new ones.

The weekend sporting, leisure and recreation options that are open to boys are broader and more diverse than they were 10 to 15 years ago. Therefore, Physical Education teachers must think about developing programs which best suit the needs of boys living in contemporary Western society. That is, they must think about what is going to be taught, and the options

available to these boys, from the period when they begin secondary school through to completion of Year 12. It is possible to have a broad based curriculum if the activities are provided throughout the duration of a boy's secondary schooling. These should not be developed and promoted as a "smorgasbord" approach to a Physical Education rather, they should be an integral part of overall programmatic curriculum structuring lasting the boy's entire school education. Some research and assessment is required by Physical Educators in order to determine the timing of certain programs in terms of when specific activities should be implemented into the boys' Physical Education and sport participation. For example, activities such as in-line skating may be better suited to younger students, whilst abseiling, surfing and indoor rock climbing directed towards the stronger, more mature boys. In preparation for these strength activities later in the boys' schooling it would be appropriate to design and implement individual weight training courses with the specific intention of gaining strength to assist in their successful undertaking. Ultimately, a program such as this provides the boys with a long term goal and a number of achievable short term objectives along the way.

An important message the boys attempted to express concerning their involvement in Physical activity is the notion of equality. Maybe it is time to consider activities whereby all boys have similar opportunities to gain valuable learning experiences and skill development in Physical Education and sport. In particular, this means providing a learning environment in which the level of skills, and size, and ability of each boy is similar to promote learning and skill development whilst at the same time improving self-esteem and masculine identity. Providing a graded Physical Education and sporting curriculum in which boys participate against other students of similar size, age, and ability could be an intervention strategy worthy of merit. The obvious limitations with such a strategy are in the design and timetabling and therefore further debate is required.

The correlation between boys' attitudes towards Physical Education and sport with the positive opinions of ones' teacher should not be underestimated. Therefore it is in the best interests of the Physical Education teachers to develop a strong, healthy rapport with the boys in their classes, particularly those who they have identified as being non-participants. The boys' comments, claiming that they enjoy teacher involvement, is indicative of the manner in which they want their Physical Education and sport lessons to be conducted.

Physical Education, sport and the implications to health

The data indicated that there is an increase in the number of boys who smoke cigarettes and drink alcohol after Year 8. The data also indicated that some boys in Year 9 and Year 10 cared less about Physical Education and sport than they did when they were in Year 8. Alarming, approximately 30 percent of all boys indicated that they attempt to get out of participating in school Physical Education and sport. These figures present serious implications for the health of Australian men in the future. School Physical Education and sport should provide a strong basis for the development of positive health habits as well as developing the foundations for future health. This is achieved through strategies such as health promotion, providing boys with numerous health and fitness options, and adopting a health and fitness ethos. With increasing numbers of boys dropping out of Physical Education and sport the likelihood of these individuals returning to physical activity is drastically reduced particularly as many positive health habits are constructed during early adolescence through participation in regular exercise. Therefore the current situation is not only an immediate concern but it also poses a future potential problem if the issues are not addressed directly.

FOLLOW-UP DISCUSSIONS

Discussing the research results and recommendations with teachers has produced many positive responses. Most of the teachers involved in the research agree that there is a real need to focus on boys' issues within Physical Education and sport. They claim that at this stage there is little that can be done about the plight of boys Physical Education and sport other than creating an educational environment which addresses issues of awareness concerning boys' and masculinity. They argue that in the current economic climate there are not enough resources available to adequately address these issues in a manner they deserve. They enjoy thinking about the notion of graded classes in which boys' are given the opportunity to participate against other students of similar size, strength and ability however, they suggest that the organisation required to successfully administer this would be too difficult. Still, at some point they may be willing to try it if the resources became available and timetabling was restructured. Some of the teachers were interested in attempting the strategy if it was implemented as a part of a research project, such as an individual case study.

This indicates that teachers are willing to participate in creating a better learning environment for boys if they are provided with appropriate opportunities to do so. They all agree that they will begin focussing on the needs of all boys, particularly those who they perceive as being in need of attention for fear of dropping out. Bringing the teachers together at the completion of the

study has created, in part, a unified front for further development where boys issues are concerned. These issues will be raised and addressed in subsequent regional Physical Education meetings in the forthcoming year. Therefore continued ongoing assessment is a possibility.

RECOMMENDATIONS FOR FURTHER RESEARCH

There are several important issues that have developed from this research which require further investigation. The most appropriate method of tackling such issues would be to target one school and carry out an individual case study. Logistical issues such as timetabling a variety of new activities, grouping lessons according to ability, and implementing non-traditional, non-competitive activities would be the focus of inquiry. Further, investigating the teachers' understanding and personal knowledge of non-traditional sports, as well as attempting to determine the level of understanding Physical Educators have of issues relating to boys needs and the social construction of masculinity.

Discussing pertinent issues with the parents of boys who are identified as non-participants is an important component to understanding some of the social issues relating to Physical Education and sport drop out rates. Similarly, if boys are dropping out of Physical Education and sport then what do they do with their leisure time? These are some of the important problems which require further investigation to develop a more complete understanding of why boys drop out of Physical Education and sport and what the implications might be for both the immediate future of Australian boys and long term future of Australian men.

REFERENCES

1. The Gen. March, 1994
2. The Gen. January, 1995
3. The Australian Magazine. 1995, p. 21
4. West, P. (1994). *Giving boys a ray of hope: Masculinity and education*. Discussion paper for the gender equity task force: Australia, December, 1994.
5. Connell, R.W. (1987). *Gender and power*. Sydney, Australia: Allen & Unwin.
6. West, P. (1994). *Giving boys a ray of hope: Masculinity and education*. Discussion paper for the gender equity task force: Australia, December, 1994.
7. West, P. (1994). *Giving boys a ray of hope: Masculinity and education*. Discussion paper for the gender equity task force: Australia, December, 1994.
8. Drummond, M. (1994). *Muscles men and masculinity*. Paper presented at Australian Association for Research in Education Conference, Newcastle, November.
9. O'Doherty, S. (1994). *Inquiry into boys' education. challenges and opportunities: A discussion paper*. A report to the minister for education, training and youth affairs by the New South Wales Government Advisory Committee on Education, Training and Tourism.
10. West, P. (1994). *Giving boys a ray of hope: Masculinity and education*. Discussion paper for the gender equity task force: Australia, December, 1994.
11. Drummond, M. (1994). *Muscles men and masculinity*. Paper presented at Australian Association for Research in Education Conference, Newcastle, November.
12. Drummond, M. (1994). *Muscles men and masculinity*. Paper presented at Australian Association for Research in Education Conference, Newcastle, November.
13. Connell, R.W. (1983). *Gender and power*. Sydney, Australia: Allen & Unwin. p33.
14. Lypsyte, R. (1992). *Listening for the footsteps: Books and boys*. Horn book magazine. May-June, p. 293.
15. The Parliament of the Commonwealth of Australia, 1992, p.82.
16. Embrey, L. (1983). *Non participation in physical education and sport in two Western Australian secondary schools*. Unpublished Master of Education Dissertation, Murdoch University.
17. Coles, E. (1980) *Sport in schools: The participation of girls*. New South Wales: Social Development Unit, Ministry of Education.
18. Drummond, M. (1994). *Muscles men and masculinity*. Paper presented at Australian Association for Research in Education Conference, Newcastle, November.

19. West, P. (1994). *Giving boys a ray of hope: Masculinity and education*. Discussion paper for the gender equity task force: Australia, December, 1994.
20. O'Doherty, S. (1994). *Inquiry into boys' education. challenges and opportunities: A discussion paper*. A report to the minister for education, training and youth affairs by the New South Wales Government Advisory Committee on Education, Training and Tourism.
21. O'Doherty, S. (1994). *Inquiry into boys' education. challenges and opportunities: A discussion paper*. A report to the minister for education, training and youth affairs by the New South Wales Government Advisory Committee on Education, Training and Tourism.
22. O'Doherty, S. (1994). *Inquiry into boys' education. challenges and opportunities: A discussion paper*. A report to the minister for education, training and youth affairs by the New South Wales Government Advisory Committee on Education, Training and Tourism.
23. Bee, H. (1989). *The developing child*. Harper and Row, New York.

About the Charts

The charts in Appendix 1 summarise the questionnaire data by categorising the students in a number of ways:

Metropolitan schools versus Country schools

The data from the following schools are grouped together:

Metropolitan:

Aquinas College
Churchlands Senior High School
Kent Street Senior High School
Lake Joondalup Baptist College
Ocean Reef Senior High School
Prendiville Catholic College

Country:

Australind Senior High School
Bunbury Cathedral Grammar
Bunbury Catholic College
Bunbury Senior High School
Carnarvon Senior High School
Nagle Catholic College (Geraldton)

Government schools versus Non government schools

The data from the following schools are grouped together:

Government:

Australind Senior High School
Bunbury Senior High School
Carnarvon Senior High School
Churchlands Senior High School
Kent Street Senior High School
Ocean Reef Senior High School

Non government:

Aquinas College
Bunbury Cathedral Grammar
Bunbury Catholic College
Lake Joondalup Baptist College
Nagle Catholic College (Geraldton)
Prendiville Catholic College

Years

All Year 8 students, Year 9 students and Year 10 students are grouped together, regardless of school type or location.

The charts in Appendix 2 summarise the data returned by each school in the survey.

The rows marked "mean" give the mean response to the particular question, those marked "variance", the sample variance, and "n", the total number of students who responded to the question. The tables marked "spread" describe the spread of the data - the percentage of students responding with a "1", "2", "3", "4" or "5". Finally, tables with a heading of the form "A 'v' B" designate whether students in category "A" answered significantly lower than those in category "B" (marked "low"), significantly higher ("high") or showed no significant difference ("-"). The significance tests were carried out for both 95% and 99% confidence levels.



APPENDIX 1

**Comparative Analysis
of
Questionnaire Data**

coolness does not depend on being good at PE/Sport.
 boys do not have to be good at sport.
 popularity is not dependant upon sporting ability.
 men are not always stronger than women.
 boys and girls have the same ability in PE/Sport.
 there are adequate PE/sport choices available to students.
 it should be the students responsibility to choose the sports they want.
 teachers are equally concerned about boys and girls PE/sport programs.
 boys should do less PE/sport.
 PE/sport should be electives in schools.
 it is the choice of the students to do PE/sport.
 teacher always think about student needs when planning the curriculum.
 boys don't need contact sports.
 boys don't enjoy PE/sport.
 the teacher is the main reason for disliking PE/sport.
 students should be made to change their clothes for PE/sport.
 individual sports are more challenging.
 school PE/sport is more appealing to boys than community based sports.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Country Schools - All Students

Mean	3.07	3.20	3.05	2.55	2.95	1.74	3.97	3.26	2.20	2.24	3.28	2.92	2.21	1.86	3.19	3.37	2.15	2.12
variance	1.35	1.25	1.25	1.47	1.36	1.11	1.22	1.38	1.08	1.37	1.35	1.19	1.23	0.93	1.14	1.47	1.25	1.16
n	300	300	299	299	300	301	301	300	301	294	295	295	295	295	293	296	295	296

Spread

%1	15	10	12	36	19	59	6	15	36	45	12	14	40	45	9	17	44	42
%2	21	19	21	17	19	21	5	12	18	16	18	19	21	29	12	10	16	19
%3	30	34	34	21	31	11	21	34	38	22	27	40	22	22	51	24	28	29
%4	12	15	15	10	12	4	19	11	4	6	17	14	12	2	9	15	5	5
%5	23	22	18	17	19	5	48	28	3	12	27	13	5	1	19	34	7	5

Metropolitan Schools - All Students

Mean	2.98	3.10	2.96	2.44	2.79	1.64	4.13	3.46	2.28	2.30	3.34	2.98	2.30	1.90	3.28	3.43	1.99	2.22
variance	1.26	1.34	1.26	1.43	1.30	1.05	1.21	1.27	1.11	1.51	1.43	1.25	1.19	1.03	1.09	1.52	1.17	1.14
n	303	301	302	303	301	302	302	294	303	295	296	296	294	296	293	295	294	295

Spread

%1	13	14	13	35	18	65	5	9	31	46	15	17	34	47	6	20	49	36
%2	23	21	27	25	29	18	8	8	23	19	14	15	23	24	13	7	16	22
%3	33	29	28	15	27	11	17	41	37	11	24	36	30	23	48	20	26	32
%4	13	14	16	10	11	2	13	10	2	7	16	18	6	4	14	17	4	6
%5	17	22	16	15	16	4	58	32	6	17	31	14	7	2	19	37	5	5

Metropolitan v Country

0.95	-	-	-	-	low	-	high	high	-	-	-	-	-	-	-	-	low	-
0.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All Schools - All Students

Mean	3.02	3.15	3.01	2.49	2.87	1.69	4.05	3.36	2.24	2.27	3.31	2.95	2.26	1.88	3.24	3.4	2.07	2.17
variance	1.3	1.3	1.26	1.45	1.33	1.08	1.21	1.33	1.1	1.44	1.39	1.22	1.21	0.98	1.11	1.49	1.21	1.15
n	603	601	601	602	601	603	603	594	604	589	591	591	589	591	586	591	589	591

Spread

%1	14	12	12	36	18	62	5	12	34	45	14	15	37	46	7	18	47	39
%2	22	20	24	21	24	20	6	10	21	17	16	17	22	27	12	9	16	20
%3	32	31	31	18	29	11	19	38	38	17	25	38	26	23	50	22	27	30
%4	12	15	15	10	12	3	16	10	3	7	16	16	9	3	12	16	4	5
%5	20	22	17	16	18	4	53	30	5	14	29	13	6	2	19	35	6	5

Metropolitan - Country

teachers should not participate with the students.
 all boys should play PE/sport together regardless of their ability.
 older PE teachers are better because they have more experience.
 PE teachers do not provide enough discipline.
 PE/sport should have mixed classes.
 PE teachers don't care about students sport outside school.
 school PE/sport only provides opportunities to try traditional sports.
 boys enjoy the traditional sports the most.
 school PE/sport has not motivated me to join community based sports.
 PE/sport do not affect my health and fitness in any way.
 PE could do more to teach the negative aspects of smoking and alcohol.
 PE teachers are not good role models of health and fitness.
 I do not play PE/sport.
 my school PE/sport is boys only
 I never try to get out of doing PE/sport
 school PE/sport is not better than community sport
 I never smoke cigarettes
 I never drink alcohol
 I never try to eat healthy food
 I do not care about the food I eat

19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
2.58	2.82	2.22	2.71	3.14	3.02	2.17	2.17	2.79	2.13	2.81	2.71	1.03	1.53	3.61	1.78	3.74	3.43	2.08	1.39
1.35	1.44	1.12	0.96	1.52	1.30	1.16	1.20	1.26	1.13	1.31	1.24	0.22	0.50	0.70	0.42	0.72	0.84	0.71	0.49
300	299	298	297	299	298	299	298	296	297	296	296	284	275	281	278	287	286	286	285

28	25	36	14	22	15	36	39	19	37	21	21	98	47	3	22	5	5	16	61
23	20	20	16	12	20	28	23	19	29	18	21	2	53	3	77	3	8	64	39
28	23	34	58	24	31	24	25	40	21	34	35	0	0	23	0	7	26	15	0
7	12	5	7	11	15	6	7	8	8	11	10	0	0	70	0	86	61	5	0
15	20	4	5	30	18	6	6	15	4	15	12	0	0	0	0	0	0	0	0

2.45	2.86	2.22	2.54	3.08	3.14	2.11	2.16	2.97	2.03	2.73	2.55	1.03	1.94	3.56	1.84	3.73	3.44	2.07	1.25
1.33	1.51	1.13	1.06	1.59	1.40	1.23	1.16	1.28	1.19	1.39	1.32	0.18	0.24	0.77	0.40	0.75	0.87	0.78	0.44
301	302	300	299	300	300	300	300	298	298	297	298	287	279	288	277	291	287	291	291

31	25	36	21	29	17	42	38	15	44	26	26	97	6	5	17	5	6	20	75
25	22	21	20	6	16	26	25	19	27	18	28	3	94	1	83	2	7	60	25
25	19	34	47	24	29	19	26	36	17	28	24	0	0	26	0	6	24	12	0
6	10	4	5	12	13	6	6	12	5	11	9	0	0	68	0	86	63	7	0
13	24	5	6	30	25	8	6	18	7	16	13	0	0	0	0	0	0	0	0

-	-	-	low	-	-	-	-	high	-	-	low	-	high	-	-	-	-	-	low
-	-	-	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-

2.51	2.84	2.22	2.63	3.11	3.08	2.14	2.17	2.88	2.08	2.77	2.63	1.03	1.74	3.59	1.81	3.74	3.43	2.08	1.32
1.34	1.48	1.13	1.01	1.55	1.35	1.19	1.18	1.27	1.16	1.35	1.28	0.2	0.44	0.73	0.41	0.74	0.86	0.75	0.47
601	601	598	596	599	598	599	598	594	595	593	594	571	554	569	555	578	573	577	576

29	25	36	18	26	16	39	39	17	41	24	23	97	26	4	20	5	6	18	68
24	21	21	18	9	18	27	24	19	28	18	25	3	74	2	80	2	8	62	32
26	21	34	53	24	30	21	25	38	19	31	30	0	0	25	0	6	25	14	0
6	11	5	6	12	14	6	6	10	7	11	10	0	0	69	0	86	62	6	0
14	22	5	5	30	22	7	6	16	5	16	12	0	0	0	0	0	0	0	0

coolness does not depend on being good at PE/Sport.
 boys do not have to be good at sport.
 popularity is not dependant upon sporting ability.
 men are not always stronger than women.
 boys and girls have the same ability in PE/Sport.
 there are adequate PE/sport choices available to students.
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 boys don't enjoy PE/sport.
 the teacher is the main reason for disliking PE/sport.
 students should be made to change their clothes for PE/sport.
 individual sports are more challenging.
 school PE/sport is more appealing to boys than community based sports.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Government Schools - All Students

Mean	3.09	3.20	3.00	2.49	2.86	1.65	4.07	3.34	2.26	2.31	3.34	2.88	2.26	1.89	3.16	3.32	2.07	2.23
variance	1.32	1.30	1.28	1.45	1.34	1.07	1.21	1.34	1.13	1.47	1.39	1.19	1.25	1.03	1.13	1.46	1.27	1.19
n	318	317	317	317	316	318	317	317	318	312	314	313	313	314	311	313	311	313

Spread

%1	14	13	13	37	20	64	5	14	36	45	12	17	38	47	9	19	49	38
%2	19	15	24	18	20	18	7	7	16	17	16	16	22	25	11	10	16	18
%3	32	36	31	19	30	10	17	39	40	16	28	42	25	22	51	23	22	32
%4	13	14	14	11	12	3	17	10	3	7	13	15	9	3	10	18	5	6
%5	22	23	18	15	17	4	54	29	5	15	31	11	7	3	18	30	8	6

Non Government Schools - All Students

Mean	2.94	3.09	3.02	2.50	2.87	1.72	4.03	3.38	2.22	2.22	3.27	3.01	2.25	1.87	3.33	3.50	2.07	2.10
variance	1.28	1.29	1.23	1.45	1.32	1.09	1.22	1.31	1.06	1.41	1.40	1.25	1.18	0.92	1.09	1.53	1.14	1.10
n	285	284	284	285	285	285	286	277	286	277	277	278	276	277	275	278	278	278

Spread

%1	14	11	11	34	16	60	6	10	32	46	15	14	36	44	5	18	45	40
%2	26	26	25	24	28	21	6	13	26	18	16	19	22	29	13	8	16	23
%3	31	27	31	17	27	11	21	36	35	17	23	34	28	23	48	20	32	29
%4	12	16	17	8	11	4	15	10	3	6	20	17	9	3	13	13	3	5
%5	18	20	16	17	18	5	53	31	4	13	26	16	5	1	21	41	5	4

Non Government v Government

0.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	high	high	-	-
0.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All Schools - All Students

Mean	3.02	3.15	3.01	2.49	2.87	1.69	4.05	3.36	2.24	2.27	3.31	2.95	2.26	1.88	3.24	3.4	2.07	2.17
variance	1.3	1.3	1.26	1.45	1.33	1.08	1.21	1.33	1.1	1.44	1.39	1.22	1.21	0.98	1.11	1.49	1.21	1.15
n	603	601	601	602	601	603	603	594	604	589	591	591	589	591	586	591	589	591

Spread

%1	14	12	12	36	18	62	5	12	34	45	14	15	37	46	7	18	47	39
%2	22	20	24	21	24	20	6	10	21	17	16	17	22	27	12	9	16	20
%3	32	31	31	18	29	11	19	38	38	17	25	38	26	23	50	22	27	30
%4	12	15	15	10	12	3	16	10	3	7	16	16	9	3	12	16	4	5
%5	20	22	17	16	18	4	53	30	5	14	29	13	6	2	19	35	6	5

Government schools - Non government schools

teachers should not participate with the students.	all boys should play PE/sport together regardless of their ability.	older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
2.51	2.75	2.37	2.71	2.79	2.99	2.08	2.19	2.79	2.08	2.70	2.67	1.05	1.83	3.58	1.78	3.76	3.49	2.07	1.31
1.37	1.49	1.18	0.99	1.53	1.33	1.18	1.19	1.27	1.14	1.31	1.25	0.26	0.37	0.79	0.45	0.74	0.77	0.73	0.47
317	317	313	314	316	314	315	315	312	313	312	312	296	288	295	286	298	296	298	299
31	28	33	15	33	18	42	38	21	40	24	21	96	17	5	23	5	4	19	69
23	21	16	17	10	17	25	23	18	29	21	24	4	83	2	76	2	6	59	31
26	19	40	56	24	32	21	27	37	19	30	31	0	0	21	0	5	27	18	0
6	12	5	6	11	15	5	5	11	6	12	12	0	0	71	0	88	63	4	0
15	20	7	6	22	18	6	7	13	5	13	11	0	0	0	0	0	0	0	0
2.52	2.94	2.07	2.54	3.47	3.18	2.21	2.14	2.99	2.09	2.86	2.59	1.01	1.64	3.59	1.84	3.71	3.37	2.08	1.32
1.31	1.46	1.04	1.03	1.50	1.38	1.21	1.17	1.27	1.18	1.39	1.32	0.10	0.48	0.67	0.36	0.74	0.93	0.76	0.47
284	284	285	282	283	284	284	283	282	282	281	282	275	266	274	269	280	277	279	277
28	21	39	21	17	14	36	40	14	41	23	26	99	36	3	16	5	8	17	68
25	21	26	20	8	19	30	24	20	27	16	25	1	64	2	84	3	9	66	32
27	24	28	49	24	27	21	24	39	19	31	28	0	0	28	0	8	22	9	0
7	10	5	6	12	14	6	7	9	7	11	7	0	0	67	0	84	61	8	0
13	24	2	5	39	26	8	5	19	6	19	14	0	0	0	0	0	0	0	0
-	high	low	low	high	high	-	-	high	-	high	-	-	low	-	-	-	-	-	-
-	-	low	-	high	-	-	-	-	-	-	-	-	low	-	-	-	-	-	-
2.51	2.84	2.22	2.63	3.11	3.08	2.14	2.17	2.88	2.08	2.77	2.63	1.03	1.74	3.59	1.81	3.74	3.43	2.08	1.32
1.34	1.48	1.13	1.01	1.55	1.35	1.19	1.18	1.27	1.16	1.35	1.28	0.2	0.44	0.73	0.41	0.74	0.86	0.75	0.47
601	601	598	596	599	598	599	598	594	595	593	594	571	554	569	555	578	573	577	576
29	25	36	18	26	16	39	39	17	41	24	23	97	26	4	20	5	6	18	68
24	21	21	18	9	18	27	24	19	28	18	25	3	74	2	80	2	8	62	32
26	21	34	53	24	30	21	25	38	19	31	30	0	0	25	0	6	25	14	0
6	11	5	6	12	14	6	6	10	7	11	10	0	0	69	0	86	62	6	0
14	22	5	5	30	22	7	6	16	5	16	12	0	0	0	0	0	0	0	0

Government schools - Non government schools

coolness does not depend on being good at PE/Sport.

boys do not have to be good at sport.

popularity is not dependant upon sporting ability.

men are not always stronger than women.

boys and girls have the same ability in PE/Sport.

there are adequate PE/sport choices available to students.

it should be the students responsibility to choose the sports they want.

teachers are equally concerned about boys and girls PE/sport programs.

boys should do less PE/sport.

PE/sport should be electives in schools.

it is the choice of the students to do PE/sport.

teacher always think about student needs when planning the curriculum.

boys don't need contact sports.

boys don't enjoy PE/sport.

the teacher is the main reason for disliking PE/sport.

students should be made to change their clothes for PE/sport.

individual sports are more challenging.

school PE/sport is more appealing to boys than community based sports.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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All Schools - By Year

Mean: 8	2.99	3.3	2.93	2.77	3.06	1.67	3.99	3.39	2.28	2.16	3.39	2.94	2.27	1.84	3.18	3.28	2.1	2.25
variance	1.34	1.37	1.28	1.51	1.37	1.09	1.28	1.33	1.14	1.45	1.46	1.21	1.28	1.05	1.19	1.51	1.27	1.21
n	194	192	193	193	194	193	193	194	194	190	191	191	191	191	188	191	190	191
Mean: 9	3.08	3.02	3.07	2.4	2.84	1.65	4.17	3.2	2.11	2.2	3.24	2.98	2.17	1.85	3.37	3.26	1.91	2.12
variance	1.27	1.23	1.24	1.43	1.34	1.04	1.15	1.36	1.08	1.37	1.36	1.22	1.17	0.95	1.07	1.53	1.16	1.14
n	203	202	202	203	203	203	203	193	203	198	199	198	197	198	197	198	197	198
Mean: 10	2.99	3.13	3.02	2.33	2.71	1.74	3.98	3.47	2.31	2.44	3.3	2.9	2.34	1.94	3.17	3.66	2.21	2.14
variance	1.32	1.27	1.26	1.39	1.28	1.12	1.21	1.29	1.07	1.5	1.35	1.23	1.19	0.93	1.09	1.42	1.19	1.11
n	204	204	203	203	201	204	204	204	204	199	199	200	199	200	199	200	200	200

Spread - Year 8

%1	15	14	16	30	17	64	7	13	33	50	15	16	39	51	10	21	47	39
%2	23	14	22	17	18	19	7	8	21	18	15	16	20	24	14	8	16	15
%3	30	31	30	21	30	9	17	37	38	13	21	38	24	18	45	25	23	35
%4	11	14	17	11	14	5	16	12	2	4	15	18	9	4	12	14	5	4
%5	21	29	15	21	22	4	53	30	7	15	35	12	8	3	20	32	8	7

Spread - Year 9

%1	11	12	10	38	19	63	5	15	38	45	14	15	39	47	6	22	54	39
%2	23	22	23	20	24	22	3	13	23	20	17	16	22	26	8	9	14	26
%3	33	35	33	19	28	8	19	37	32	17	24	39	27	22	50	20	25	24
%4	13	14	15	8	12	4	16	8	3	7	21	16	7	4	16	17	3	7
%5	20	17	18	14	17	3	57	27	4	11	24	14	5	1	20	31	5	5

Spread - Year 10

%1	16	10	11	38	18	60	4	9	30	41	12	16	33	40	7	13	40	39
%2	21	24	27	25	30	19	9	9	20	15	16	20	23	31	14	9	17	21
%3	32	29	30	14	27	14	21	39	42	20	31	37	27	27	53	21	33	32
%4	13	16	14	10	9	1	17	9	4	8	13	15	12	2	8	16	5	6
%5	19	21	18	12	14	6	50	33	4	17	28	14	5	2	18	42	6	4

Year 9 v Year 8

0.95	-	low	-	low	low	-	-	-	-	-	-	-	-	-	high	-	low	-
0.99	-	low	-	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

0.95	-	-	-	-	-	-	low	high	high	high	-	-	-	-	low	high	high	-
0.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	high	high	-

Year 10 v Year 8

0.95	-	-	-	low	low	-	-	-	-	high	-	-	-	-	-	high	-	-
0.99	-	-	-	low	low	-	-	-	-	-	-	-	-	-	-	high	-	-

teachers should not participate with the students.
 all boys should play PE/sport together regardless of their ability.
 older PE teachers are better because they have more experience.
 PE teachers do not provide enough discipline.
 PE/sport should have mixed classes.
 PE teachers don't care about students sport outside school.
 school PE/sport only provides opportunities to try traditional sports.
 boys enjoy the traditional sports the most.
 school PE/sport has not motivated me to join community based sports.
 PE/sport do not affect my health and fitness in any way.
 PE could do more to teach the negative aspects of smoking and alcohol.
 PE teachers are not good role models of health and fitness.
 I do not play PE/sport.
 my school PE/sport is boys only
 I never try to get out of doing PE/sport
 school PE/sport is not better than community sport
 I never smoke cigarettes
 I never drink alcohol
 I never try to eat healthy food
 I do not care about the food I eat

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

2.51	2.92	2.24	2.66	3.08	2.91	2.25	2.15	2.72	1.88	2.68	2.59	1.03	1.75	3.65	1.79	3.81	3.62	2.02	1.3
1.46	1.55	1.18	1.04	1.59	1.36	1.29	1.28	1.33	1.11	1.35	1.33	0.16	0.43	0.68	0.45	0.62	0.79	0.75	0.46
194	194	193	193	194	193	193	193	192	192	191	192	187	183	187	179	189	188	188	189
2.51	2.77	2.04	2.44	3.05	3.34	2.08	2.07	2.95	2.22	2.88	2.76	1.04	1.7	3.61	1.83	3.72	3.39	2.14	1.33
1.3	1.41	1.12	1.03	1.58	1.34	1.17	1.08	1.24	1.22	1.41	1.28	0.19	0.46	0.73	0.38	0.78	0.89	0.75	0.47
201	201	201	200	199	201	201	200	199	199	199	199	195	189	195	189	200	199	200	198
2.54	2.83	2.39	2.78	3.19	2.99	2.09	2.28	2.98	2.14	2.76	2.56	1.03	1.76	3.49	1.81	3.68	3.28	2.08	1.33
1.27	1.47	1.06	0.96	1.5	1.32	1.13	1.17	1.24	1.14	1.3	1.24	0.25	0.43	0.79	0.41	0.8	0.86	0.74	0.47
203	203	201	200	203	201	202	202	200	201	200	200	186	179	184	184	186	183	186	186

35	26	39	18	27	21	36	42	26	49	27	26	97	25	3	22	3	5	22	70
20	20	13	17	10	18	30	24	15	28	19	25	3	75	4	78	2	5	59	30
21	16	36	52	21	29	16	19	34	14	28	27	0	0	20	0	6	14	14	0
6	12	7	7	11	15	9	6	11	5	13	9	0	0	74	0	89	76	5	0
18	26	5	6	31	18	9	9	14	5	14	14	0	0	0	0	0	0	0	0

28	24	42	23	27	10	42	40	16	36	25	21	96	30	5	17	6	7	15	67
25	21	25	24	11	17	24	26	16	27	14	21	4	70	1	83	3	8	64	33
27	26	26	45	23	29	23	27	42	24	30	34	0	0	25	0	5	25	14	0
8	9	2	4	10	13	5	5	11	5	14	10	0	0	70	0	87	60	8	0
12	19	5	5	30	30	5	4	16	8	19	14	0	0	0	0	0	0	0	0

25	25	26	13	23	17	39	34	11	37	21	24	98	24	5	20	6	5	18	67
26	21	23	15	7	18	28	22	27	28	22	28	2	76	2	80	3	10	63	33
32	22	41	60	28	31	24	30	37	20	34	28	0	0	30	0	8	36	13	0
5	10	6	8	14	15	3	8	8	10	8	11	0	0	63	0	83	49	6	0
12	22	4	6	29	18	6	5	19	3	16	10	0	0	0	0	0	0	0	0

-	-	low	low	-	high	-	-	high	high	high	-	-	-	-	-	-	low	-	-
-	-	-	-	-	high	-	-	-	high	-	-	-	-	-	-	-	low	-	-

-	-	high	high	-	low	-	high	-	-	-	low	-	-	-	-	-	-	-	-
-	-	high	high	-	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	-	-	-	-	high	high	-	-	-	-	low	-	-	low	-	-
-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	low	-	-



APPENDIX 2

**Summaries
of
Questionnaire Data
-
School by School**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
coolness does not depend on being good at PE/Sport.	boys do not have to be good at sport.	popularity is not dependant upon sporting ability.	men are not always stronger than women.	boys and girls have the same ability in PE/Sport.	there are adequate PE/sport choices available to students.	it should be the students responsibility to choose the sports they want.	teachers are equally concerned about boys and girls PE/sport programs.	boys should do less PE/sport.	PE/sport should be electives in schools.	it is the choice of the students to do PE/sport.	teacher always think about student needs when planning the curriculum.	boys don't need contact sports.	boys don't enjoy PE/sport.	the teacher is the main reason for disliking PE/sport.	students should be made to change their clothes for PE/sport.	individual sports are more challenging.	school PE/sport is more appealing to boys than community based sports.	teachers should not participate with the students.	all boys should play PE/sport together regardless of their ability.

Year 8

%1	10	0	15	5	20	60	5	0	20	45	10	15	30	35	10	20	40	40	35	10
%2	20	25	25	25	25	20	5	5	35	25	20	15	15	35	35	5	15	20	25	15
%3	40	40	25	25	25	10	10	35	45	5	5	45	45	20	25	30	35	30	15	30
%4	15	5	20	10	5	5	10	20	0	5	30	10	10	5	15	15	5	0	10	10
%5	15	30	15	35	25	5	70	40	0	20	35	15	0	5	15	30	5	10	15	35

Year 9

%1	9	9	14	36	9	45	0	8	41	27	23	0	14	36	0	14	36	9	27	14
%2	36	14	32	23	36	27	0	0	32	32	23	5	18	27	10	5	18	45	41	18
%3	23	41	18	14	14	18	23	46	18	14	14	41	50	32	57	14	32	36	23	23
%4	14	9	18	9	14	0	14	8	9	9	23	27	5	5	24	27	9	9	5	14
%5	18	27	18	18	27	9	64	38	0	18	18	27	14	0	10	41	5	0	5	32

Year 10

%1	0	0	8	28	4	44	0	8	20	28	12	16	24	32	0	12	40	20	16	12
%2	32	24	44	40	40	36	4	12	36	28	8	28	28	40	8	0	28	36	36	28
%3	40	20	20	8	24	16	16	32	44	16	44	28	40	28	60	16	32	28	40	16
%4	20	48	24	16	20	0	20	16	0	20	16	16	4	0	20	24	0	8	0	20
%5	8	8	4	8	12	4	60	32	0	8	20	12	4	0	12	48	0	8	8	24

All

%1	6	3	12	24	10	49	1	5	27	33	15	10	22	34	3	15	39	22	25	12
%2	30	21	34	30	34	28	3	7	34	28	16	16	21	34	17	3	21	34	34	21
%3	34	33	21	15	21	15	16	36	36	12	22	37	45	27	48	19	33	31	27	22
%4	16	22	21	12	13	1	15	16	3	12	22	18	6	3	20	22	4	6	4	15
%5	13	21	12	19	21	6	64	36	0	15	24	18	6	1	12	40	3	6	9	30

Mean: 8	3.05	3.40	2.95	3.45	2.90	1.75	4.35	3.95	2.25	2.30	3.60	2.95	2.35	2.10	2.90	3.30	2.20	2.20	2.45	3.45
variance	1.42	1.41	1.73	1.84	2.20	1.36	1.40	1.00	0.62	2.54	2.04	1.52	1.08	1.25	1.57	2.22	1.43	1.64	2.16	1.94
n	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Mean: 9	2.95	3.32	2.95	2.50	3.14	2.00	4.41	3.69	1.95	2.59	2.91	3.77	2.86	2.05	3.33	3.77	2.27	2.45	2.18	3.32
variance	1.66	1.66	1.85	2.36	2.03	1.52	0.73	1.56	1.00	2.16	2.18	0.85	1.36	0.90	0.63	1.99	1.45	0.64	1.11	2.13
n	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21	22	22	22	22	22
Mean: 10	3.04	3.40	2.72	2.36	2.96	1.84	4.36	3.52	2.24	2.52	3.24	2.80	2.36	1.96	3.36	3.96	1.92	2.48	2.48	3.16
variance	0.87	0.92	1.13	1.66	1.29	0.97	0.82	1.68	0.61	1.76	1.52	1.58	1.07	0.62	0.66	1.79	0.74	1.34	1.09	1.97
n	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Mean	3.01	3.37	2.87	2.73	3.00	1.87	4.37	3.71	2.15	2.48	3.24	3.16	2.52	2.03	3.21	3.70	2.12	2.39	2.37	3.30
variance	1.26	1.27	1.51	2.11	1.76	1.24	0.93	1.40	0.73	2.07	1.91	1.47	1.19	0.88	0.94	2.00	1.17	1.18	1.39	1.97
n	67	67	67	67	67	67	67	58	67	67	67	67	67	67	66	67	67	67	67	67

Year 9 v Year 8

95%	-	-	-	low	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-

Year 10 v Year 9

95%	-	-	-	-	-	-	-	-	-	-	-	-	low	-	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	low	-	-	-	-	-	-	-

Year 10 v Year 8

95%	-	-	-	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
99%	-	-	-	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38

40	40	15	15	30	35	15	60	20	40	100	0	0	16	0	0	35	84
10	20	5	15	35	25	20	30	20	40	0	100	5	84	10	10	60	16
45	25	15	25	10	25	35	5	30	5	0	0	30	0	10	10	5	0
0	10	20	10	5	5	5	0	15	5	0	0	65	0	80	80	0	0
5	5	45	35	20	10	25	5	15	10	0	0	0	0	0	0	0	0

36	9	20	5	27	23	23	27	68	45	95	0	5	23	0	0	32	95
32	45	5	14	27	41	14	36	9	41	5	100	0	77	5	0	68	5
23	41	25	18	27	27	27	36	18	9	0	0	41	0	9	18	0	0
5	5	5	23	9	5	14	0	5	5	0	0	55	0	86	82	0	0
5	0	45	41	9	5	23	0	0	0	0	0	0	0	0	0	0	0

16	16	16	12	16	24	4	44	32	28	100	0	4	17	8	4	20	88
48	24	0	8	44	28	36	44	20	40	0	100	0	83	0	13	68	12
28	52	8	36	24	32	36	12	32	16	0	0	48	0	12	54	12	0
8	4	32	20	8	16	12	0	4	8	0	0	48	0	80	29	0	0
0	4	44	24	8	0	12	0	12	8	0	0	0	0	0	0	0	0

30	21	17	10	24	27	13	43	40	37	99	0	3	19	3	2	28	89
31	30	3	12	36	31	24	37	16	40	1	100	1	81	4	8	66	11
31	40	15	27	21	28	33	18	27	10	0	0	40	0	10	29	6	0
4	6	20	18	7	9	10	0	7	6	0	0	55	0	82	62	0	0
3	3	45	33	12	4	19	1	9	6	0	0	0	0	0	0	0	0

2.20	2.20	3.75	3.35	2.50	2.30	3.05	1.60	2.85	2.05	1.00	2.00	3.60	1.84	3.70	3.70	1.70	1.16
1.33	1.54	2.20	2.24	2.26	1.69	1.94	0.99	1.82	1.63	0.00	0.00	0.36	0.14	0.43	0.43	0.33	0.14
20	20	20	20	20	20	20	20	20	20	20	20	20	19	20	20	20	19
2.09	2.41	3.50	3.82	2.45	2.27	3.00	2.09	1.59	1.73	1.05	2.00	3.45	1.77	3.82	3.82	1.68	1.05
1.23	0.54	2.58	1.58	1.59	1.06	2.19	0.66	0.92	0.68	0.05	0.00	0.55	0.18	0.25	0.16	0.23	0.05
22	22	20	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
2.28	2.56	3.88	3.36	2.48	2.40	2.92	1.68	2.44	2.28	1.00	2.00	3.40	1.83	3.64	3.08	1.92	1.12
0.71	0.92	2.03	1.66	1.26	1.08	1.16	0.48	1.76	1.46	0.00	0.00	0.50	0.15	0.74	0.60	0.33	0.11
25	25	25	25	25	25	25	25	25	25	25	25	25	23	25	24	25	25
2.19	2.40	3.72	3.51	2.48	2.33	2.99	1.79	2.28	2.03	1.01	2.00	3.48	1.81	3.72	3.52	1.78	1.11
1.04	0.97	2.20	1.80	1.62	1.22	1.68	0.71	1.72	1.27	0.01	0.00	0.47	0.15	0.48	0.50	0.30	0.10
67	67	65	67	67	67	67	67	67	67	67	67	67	64	67	66	67	66

-	-	-	-	-	-	-	high	low	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	low	-	-	-	-	-	-	-	-	-

-	-	-	-	-	-	-	low	high	high	-	-	-	-	-	low	-	-
-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	low	-	-

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	low	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	low	-	-

1	coolness does not depend on being good at PE/Sport.
2	boys do not have to be good at sport.
3	popularity is not dependant upon sporting ability.
4	men are not always stronger than women.
5	boys and girls have the same ability in PE/ Sport.
6	there are adequate PE/sport choices available to students.
7	it should be the students responsibility to choose the sports they want.
8	teachers are equally concerned about boys and girls PE/sport programs.
9	boys should do less PE/sport.
10	PE/sport should be electives in schools.
11	it is the choice of the students to do PE/sport.
12	teacher always think about student needs when planning the curriculum.
13	boys don't need contact sports.
14	boys don't enjoy PE/sport.
15	the teacher is the main reason for disliking PE/sport.
16	students should be made to change their clothes for PE/sport.
17	individual sports are more challenging.
18	school PE/sport is more appealing to boys than community based sports.
19	teachers should not participate with the students.
20	all boys should play PE/sport together regardless of their ability.

Year 8

%1	38	13	38	47	19	69	6	13	19	63	13	19	31	56	7	38	50	31	31	38
%2	13	6	6	13	6	13	6	13	19	6	19	13	19	19	7	19	19	25	6	31
%3	25	56	44	20	38	19	19	50	50	31	31	44	25	25	60	6	25	25	38	19
%4	0	13	13	7	13	0	13	0	13	0	0	6	0	0	7	13	0	0	0	13
%5	25	13	0	13	25	0	56	25	0	0	38	19	25	0	20	25	6	19	25	0

Year 9

%1	20	10	5	40	20	60	0	11	25	20	0	0	55	15	10	25	37	30	10	15
%2	15	10	30	10	10	20	5	16	5	30	20	40	15	55	20	15	21	25	40	30
%3	40	55	55	20	40	10	35	42	65	30	50	50	15	30	55	35	37	25	35	40
%4	15	15	10	25	20	5	10	16	0	10	15	0	15	0	5	20	5	15	5	0
%5	10	10	0	5	10	5	50	16	5	10	15	10	0	0	10	5	0	5	10	15

Year 10

%1	6	0	0	24	6	53	6	0	29	41	6	12	35	35	12	12	24	18	35	12
%2	24	6	29	29	18	12	0	18	6	6	18	18	18	24	6	6	29	29	18	35
%3	18	35	24	12	24	18	12	65	18	24	35	24	41	82	18	35	47	29	18	
%4	18	24	12	18	29	6	29	18	0	12	6	24	24	0	0	29	6	6	6	18
%5	35	35	35	18	24	12	53	53	0	24	47	12	0	0	0	35	6	0	12	18

All

%1	21	8	13	37	15	60	4	8	25	40	6	9	42	34	10	25	37	26	25	21
%2	17	8	23	17	11	15	4	15	9	15	19	25	17	34	12	13	23	26	23	32
%3	28	49	42	17	34	15	23	35	60	26	36	43	21	32	65	21	33	32	34	26
%4	11	17	11	17	21	4	17	12	4	8	8	9	13	0	4	21	4	8	4	9
%5	23	19	11	12	19	6	53	31	2	11	32	13	8	0	10	21	4	8	15	11

Mean: 8	2.63	3.06	2.31	2.27	3.19	1.50	4.06	3.13	2.56	1.69	3.31	2.94	2.69	1.69	3.29	2.69	1.94	2.50	2.81	2.06
variance	2.65	1.26	1.30	2.21	2.03	0.67	1.66	1.72	0.93	0.90	2.23	1.80	2.50	0.76	0.87	2.90	1.40	2.13	2.43	1.13
n	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Mean: 9	2.80	3.05	2.70	2.45	2.90	1.75	4.05	3.11	2.55	2.60	3.25	2.80	1.90	2.15	2.85	2.65	2.11	2.40	2.65	2.70
variance	1.54	1.10	0.54	1.94	1.57	1.36	1.10	1.43	1.10	1.52	0.93	0.80	1.36	0.45	1.08	1.50	0.99	1.52	1.19	1.48
n	20	20	20	20	20	20	20	19	20	20	20	20	20	20	20	20	19	20	20	20
Mean: 10	3.53	3.88	3.53	2.76	3.47	2.12	4.24	4.06	2.35	2.71	3.71	3.06	2.35	2.06	2.71	3.71	2.41	2.41	2.41	2.94
variance	1.89	0.99	1.64	2.19	1.51	2.11	1.19	1.43	0.87	2.85	1.97	1.43	1.49	0.81	0.47	1.85	1.26	0.76	1.88	1.81
n	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Mean	2.98	3.32	2.85	2.50	3.17	1.79	4.11	3.42	2.49	2.36	3.42	2.92	2.28	1.98	2.95	3.00	2.15	2.43	2.62	2.58
variance	2.06	1.22	1.32	2.06	1.68	1.40	1.26	1.66	0.95	1.89	1.63	1.26	1.78	0.67	0.96	2.19	1.19	1.40	1.74	1.56
n	53	53	53	52	53	53	53	52	53	53	53	53	53	53	53	53	52	53	53	53

Year 9 v Year 8

95%	-	-	-	-	-	-	-	-	-	high	-	-	low	high	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	high	high	high	-	-	-	-	high	-	-	-	-	-	-	-	high	-	-	-	-
99%	-	high	high	-	-	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-

Year 10 v Year 8

95%	high	high	high	-	-	-	-	high	-	high	-	-	-	-	-	high	-	-	-	high
99%	-	-	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

19	6	56	44	50	44	63	63	38	38	94	0	7	20	7	7	0	47
19	19	13	13	19	19	6	19	25	6	6	100	7	80	0	0	53	53
31	56	25	13	19	31	31	13	25	38	0	0	0	0	0	20	33	0
25	6	6	13	13	0	0	6	0	6	0	0	87	0	93	73	13	0
6	13	0	19	0	6	0	0	13	13	0	0	0	0	0	0	0	0

35	15	15	5	30	40	20	20	5	5	100	38	11	21	0	5	32	68
35	30	35	35	30	30	35	35	15	15	0	63	0	79	5	0	53	32
30	45	20	30	35	25	45	40	60	50	0	0	44	0	11	58	11	0
0	10	20	15	5	5	0	0	15	20	0	0	44	0	84	37	5	0
0	0	10	15	0	0	0	5	5	10	0	0	0	0	0	0	0	0

25	12	18	12	41	29	12	18	35	29	100	6	0	19	13	0	19	75
13	18	12	41	41	35	18	47	24	41	0	94	0	81	0	6	69	25
38	59	35	24	18	29	35	18	35	18	0	0	38	0	6	63	13	0
6	6	12	18	0	0	6	18	0	12	0	0	63	0	81	31	0	0
19	6	24	6	0	6	29	0	6	0	0	0	0	0	0	0	0	0

27	11	28	19	40	38	30	32	25	23	98	15	6	20	6	4	18	64
23	23	21	30	30	28	21	34	21	21	2	85	2	80	2	2	58	36
33	53	26	23	25	28	38	25	42	36	0	0	29	0	6	48	18	0
10	8	13	15	6	2	2	8	6	13	0	0	63	0	86	46	6	0
8	6	11	13	0	4	9	2	8	8	0	0	0	0	0	0	0	0

2.81	3.00	1.81	2.50	1.94	2.06	1.69	1.63	2.25	2.50	1.06	2.00	3.67	1.80	3.80	3.60	2.60	1.53
1.50	1.07	1.10	2.67	1.26	1.40	0.90	0.92	1.80	2.00	0.06	0.00	0.81	0.17	0.60	0.69	0.54	0.27
16	16	16	16	16	16	16	16	16	16	16	15	15	15	15	15	15	15
1.95	2.50	2.75	3.00	2.15	1.95	2.25	2.35	3.00	3.15	1.00	1.63	3.22	1.79	3.79	3.26	1.89	1.32
0.68	0.79	1.57	1.37	0.87	0.89	0.62	0.98	0.74	0.98	0.00	0.25	0.89	0.18	0.29	0.54	0.65	0.23
20	20	20	20	20	20	20	20	20	20	18	16	18	19	19	19	19	19
2.81	2.76	3.12	2.65	1.76	2.18	3.24	2.35	2.18	2.12	1.00	1.94	3.63	1.81	3.56	3.25	1.94	1.25
2.03	0.94	1.99	1.24	0.57	1.15	1.94	0.99	1.28	0.99	0.00	0.06	0.25	0.16	1.06	0.33	0.33	0.20
16	17	17	17	17	17	17	17	17	17	16	16	16	16	16	16	16	16
2.48	2.74	2.58	2.74	1.96	2.06	2.40	2.13	2.51	2.62	1.02	1.85	3.49	1.80	3.72	3.36	2.12	1.36
1.47	0.93	1.79	1.70	0.88	1.09	1.47	1.04	1.33	1.43	0.02	0.13	0.67	0.16	0.61	0.52	0.60	0.24
52	53	53	53	53	53	53	53	53	53	50	47	49	50	50	50	50	50

low	-	high	-	-	-	high	high	high	-	-	low	-	-	-	-	low	-
low	-	-	-	-	-	-	-	-	-	-	low	-	-	-	-	low	-

high	-	-	-	-	-	high	-	low	low	-	high	-	-	-	-	-	-
-	-	-	-	-	-	high	-	low	low	-	-	-	-	-	-	-	-

-	-	high	-	-	-	high	high	-	-	-	-	-	-	-	-	low	-
-	-	high	-	-	-	high	-	-	-	-	-	-	-	-	-	low	-

	coolness does not depend on being good at PE/Sport.	boys do not have to be good at sport.	popularity is not dependant upon sporting ability.	men are not always stronger than women.	boys and girls have the same ability in PE/Sport.	there are adequate PE/sport choices available to students.	it should be the students responsibility to choose the sports they want.	teachers are equally concerned about boys and girls PE/sport programs.	boys should do less PE/sport.	PE/sport should be electives in schools.	it is the choice of the students to do PE/sport.	teacher always think about student needs when planning the curriculum.	boys don't need contact sports.	boys don't enjoy PE/sport.	the teacher is the main reason for disliking PE/sport.	students should be made to change their clothes for PE/sport.	individual sports are more challenging.	school PE/sport is more appealing to boys than community based sports.	teachers should not participate with the students.	all boys should play PE/sport together regardless of their ability.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Year 8

%1	40	20	0	20	0	40	0	0	20	20	20	0	20	20	0	20	20	20	40	20
%2	0	20	40	0	20	20	20	0	20	20	0	0	20	60	0	0	20	40	20	0
%3	20	20	40	40	20	20	0	0	60	20	40	60	20	20	60	20	60	0	40	20
%4	0	0	0	20	20	20	0	0	0	20	20	20	40	0	20	40	0	20	0	20
%5	40	40	20	20	40	0	80	100	0	20	20	20	0	0	20	20	0	20	0	40

Year 9

%1	6	0	0	38	25	69	6	25	56	56	0	13	50	56	0	44	75	56	13	13
%2	44	50	25	13	25	31	0	44	38	19	19	25	19	19	13	13	6	38	13	38
%3	31	38	44	25	31	0	6	19	6	19	19	44	25	25	31	19	19	6	50	25
%4	13	0	19	6	0	0	13	6	0	0	38	19	6	0	25	0	0	0	19	6
%5	6	13	13	19	19	0	75	6	0	6	25	0	0	0	31	25	0	0	6	19

Year 10

%1	8	8	0	33	15	38	15	8	23	42	0	8	17	42	0	0	33	25	31	31
%2	23	31	54	17	38	31	0	8	15	25	36	8	33	42	25	8	17	42	8	8
%3	15	31	23	17	15	23	15	38	54	33	27	42	25	17	25	17	42	33	31	31
%4	23	8	8	0	8	8	31	8	8	0	27	17	25	0	8	17	0	0	15	23
%5	31	23	15	33	23	0	38	38	0	0	9	25	0	0	42	58	8	0	15	8

All

%1	12	6	0	33	18	53	9	15	38	45	3	9	33	45	0	24	52	39	24	21
%2	29	38	38	12	29	29	3	24	26	21	22	15	24	33	15	9	12	39	12	21
%3	24	32	35	24	24	12	9	24	32	24	25	45	24	21	33	18	33	15	41	26
%4	15	3	12	6	6	6	18	6	3	3	31	18	18	0	18	12	0	3	15	15
%5	21	21	15	24	24	0	62	32	0	6	19	12	0	0	33	36	3	3	9	18

Mean: 8	3.00	3.20	3.00	3.20	3.80	2.20	4.40	5.00	2.40	3.00	3.20	3.60	2.80	2.00	3.60	3.40	2.40	2.80	2.00	3.60
variance	4.00	3.20	1.50	2.20	1.70	1.70	1.80	0.00	0.80	2.50	2.20	0.80	1.70	0.50	0.80	2.30	0.80	2.70	1.00	2.80
n	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean: 9	2.69	2.75	3.19	2.56	2.63	1.31	4.50	2.25	1.50	1.81	3.69	2.69	1.88	1.69	3.75	2.50	1.44	1.50	2.94	2.81
variance	1.03	1.00	0.96	2.40	1.98	0.23	1.20	1.27	0.40	1.36	1.16	0.90	1.05	0.76	1.13	2.80	0.66	0.40	1.13	1.76
n	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Mean: 10	3.46	3.08	2.85	2.83	2.85	2.00	3.77	3.62	2.46	1.92	3.09	3.42	2.58	1.75	3.67	4.25	2.33	2.08	2.77	2.69
variance	1.94	1.74	1.31	3.06	2.14	1.00	2.03	1.76	0.94	0.81	1.09	1.54	1.17	0.57	1.70	1.11	1.52	0.63	2.19	1.90
n	13	13	13	12	13	13	13	13	13	12	11	12	12	12	12	12	12	12	13	13
Mean	3.03	2.94	3.03	2.76	2.88	1.71	4.21	3.18	2.00	2.03	3.41	3.09	2.27	1.76	3.70	3.27	1.91	1.91	2.74	2.88
variance	1.79	1.51	1.12	2.50	2.05	0.82	1.62	2.21	0.85	1.41	1.28	1.21	1.27	0.63	1.22	2.64	1.15	0.96	1.53	1.93
n	34	34	34	33	34	34	34	34	34	33	32	33	33	33	33	33	33	33	34	34

Year 9 v Year 8

95%	-	-	-	-	-	low	-	low	low	low	-	low	-	-	-	-	low	low	high	-
99%	-	-	-	-	-	-	-	low	low	-	-	-	-	-	-	-	-	low	-	-

Year 10 v Year 9

95%	high	-	-	-	-	high	-	high	high	-	-	high	high	-	-	high	high	high	-	-
99%	-	-	-	-	-	high	-	high	high	-	-	-	-	-	-	high	-	-	-	-

Year 10 v Year 8

95%	-	-	-	-	-	-	-	low	-	low	-	-	-	-	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

0	20	20	0	20	0	0	20	0	40	100	0	0	0	0	0	20	80
20	0	40	60	40	80	40	40	0	0	0	100	0	100	0	0	80	20
60	80	20	40	0	0	20	20	40	60	0	0	20	0	0	0	0	0
20	0	0	0	40	20	0	20	40	0	0	0	80	0	100	100	0	0
0	0	20	0	0	0	40	0	20	0	0	0	0	0	0	0	0	0

63	19	25	6	19	47	20	27	7	13	100	13	0	6	6	13	13	88
13	25	13	13	44	33	0	20	20	20	0	87	0	94	0	13	75	13
25	50	25	25	25	7	47	40	47	47	0	0	44	0	0	19	6	0
0	6	19	25	6	13	13	13	7	7	0	0	56	0	94	56	6	0
0	0	19	31	6	0	20	0	20	13	0	0	0	0	0	0	0	0

31	8	8	15	38	31	8	23	8	8	100	8	0	8	0	15	8	54
46	25	15	23	15	23	38	15	15	8	0	92	15	92	0	8	77	46
23	50	38	15	38	31	31	23	31	38	0	0	23	0	15	15	8	0
0	8	8	15	0	8	0	31	8	15	0	0	62	0	85	62	8	0
0	8	31	31	8	8	23	8	38	31	0	0	0	0	0	0	0	0

41	15	18	9	26	33	12	24	6	15	100	9	0	6	3	12	12	74
26	21	18	24	32	36	21	21	15	12	0	91	6	94	0	9	76	26
29	55	29	24	26	15	36	30	39	45	0	0	32	0	6	15	6	0
3	6	12	18	9	12	6	21	12	9	0	0	62	0	91	65	6	0
0	3	24	26	6	3	24	3	27	18	0	0	0	0	0	0	0	0

3.00	2.60	2.60	2.40	2.60	2.40	3.40	2.40	3.80	2.20	1.00	2.00	3.80	2.00	4.00	4.00	1.80	1.20
0.50	0.80	2.30	0.30	1.80	0.80	2.30	1.30	0.70	1.20	0.00	0.00	0.20	0.00	0.00	0.00	0.20	0.20
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
1.63	2.44	2.94	3.63	2.38	1.87	3.13	2.40	3.13	2.87	1.00	1.87	3.56	1.94	3.81	3.19	2.06	1.13
0.78	0.80	2.20	1.58	1.18	1.12	1.84	1.11	1.41	1.41	0.00	0.12	0.26	0.06	0.56	1.23	0.46	0.12
16	16	16	16	16	15	15	15	15	15	15	15	16	16	16	16	16	16
1.92	2.83	3.38	3.23	2.23	2.38	2.92	2.85	3.54	3.54	1.00	1.92	3.46	1.92	3.85	3.23	2.15	1.46
0.58	1.06	1.76	2.36	1.53	1.59	1.74	1.81	1.94	1.60	0.00	0.08	0.60	0.08	0.14	1.36	0.47	0.27
13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
1.94	2.61	3.06	3.29	2.35	2.15	3.09	2.58	3.39	3.03	1.00	1.91	3.56	1.94	3.85	3.32	2.06	1.26
0.84	0.87	2.00	1.79	1.33	1.26	1.77	1.38	1.50	1.59	0.00	0.09	0.38	0.06	0.31	1.13	0.42	0.20
34	33	34	34	34	33	33	33	33	33	33	33	34	34	34	34	34	34

low	-	-	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-
low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	high
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

low	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-
low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

coolness does not depend on being good at PE/Sport.
 boys do not have to be good at sport.
 popularity is not dependant upon sporting ability.
 men are not always stronger than women.
 boys and girls have the same ability in PE/Sport.
 there are adequate PE/sport choices available to students.
 it should be the students responsibility to choose the sports they want.
 teachers are equally concerned about boys and girls PE/sport programs.
 boys should do less PE/sport.
 PE/sport should be electives in schools.
 it is the choice of the students to do PE/sport.
 teacher always think about student needs when planning the curriculum.
 boys don't need contact sports.
 boys don't enjoy PE/sport.
 the teacher is the main reason for disliking PE/sport.
 students should be made to change their clothes for PE/sport.
 individual sports are more challenging.
 school PE/sport is more appealing to boys than community based sports.
 teachers should not participate with the students.
 all boys should play PE/sport together regardless of their ability.

Year 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
%1	33	8	33	33	0	58	17	8	25	50	17	17	50	25	33	25	58	42	42	33
%2	8	8	8	17	17	25	8	25	17	25	25	8	17	58	17	8	8	17	25	25
%3	17	33	17	17	42	0	25	42	50	0	8	25	8	17	33	8	17	42	17	25
%4	8	17	25	8	8	0	8	0	0	0	8	33	17	0	8	8	0	0	0	0
%5	33	33	17	25	33	17	42	25	8	25	42	17	8	0	8	50	17	0	17	17

Year 9

%1	18	0	0	0	0	18	9	9	18	40	0	0	30	22	0	10	40	30	18	9
%2	27	9	18	36	36	36	18	9	18	10	0	30	10	33	10	0	10	10	45	9
%3	9	36	18	45	45	18	36	27	55	40	30	50	50	22	60	40	30	30	18	45
%4	27	45	27	9	9	18	27	9	9	10	50	10	10	22	10	20	10	20	18	27
%5	18	9	36	9	9	9	9	45	0	0	20	10	0	0	20	30	10	10	0	9

Year 10

%1	14	13	14	60	33	67	0	13	53	67	47	20	33	47	0	0	47	53	27	27
%2	14	53	29	27	33	27	7	0	20	20	7	7	33	40	13	13	13	13	40	13
%3	64	7	29	13	27	7	33	27	27	7	33	33	27	13	53	7	40	33	20	27
%4	0	13	7	0	0	0	13	20	0	7	13	27	7	0	7	7	0	0	7	7
%5	7	13	21	0	7	0	47	40	0	0	0	13	0	0	27	73	0	0	7	27

All

%1	22	8	16	34	13	50	8	11	34	54	24	14	38	33	11	11	49	43	29	24
%2	16	26	19	26	29	29	11	11	18	19	11	14	22	44	14	8	11	14	37	16
%3	32	24	22	24	37	8	32	32	42	14	24	35	27	17	49	16	30	35	18	32
%4	11	24	19	5	5	5	16	11	3	5	22	24	11	6	8	11	3	5	8	11
%5	19	18	24	11	16	8	34	37	3	8	19	14	3	0	19	54	8	3	8	18

Mean: 8	3.00	3.58	2.83	2.75	3.58	1.92	3.50	3.08	2.50	2.25	3.33	3.25	2.17	1.92	2.42	3.50	2.08	2.00	2.25	2.42
variance	3.09	1.72	2.52	2.75	1.36	2.27	2.45	1.72	1.36	2.93	2.79	1.84	2.15	0.45	1.72	3.18	2.45	0.91	2.20	2.08
n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mean: 9	3.00	3.55	3.82	2.91	2.91	2.64	3.09	3.73	2.55	2.20	3.90	3.00	2.40	2.44	3.40	3.60	2.40	2.70	2.36	3.18
variance	2.20	0.67	1.36	0.89	0.89	1.65	1.29	2.02	0.87	1.29	0.54	0.89	1.16	1.28	0.93	1.60	2.04	2.01	1.05	1.16
n	11	11	11	11	11	11	11	11	11	10	10	10	10	9	10	10	10	10	11	11
Mean: 10	2.71	2.60	2.93	1.53	2.13	1.40	4.00	3.73	1.73	1.53	2.13	3.07	2.07	1.67	3.47	4.40	1.93	1.80	2.27	2.93
variance	0.99	1.69	1.92	0.55	1.27	0.40	1.14	1.92	0.78	0.84	1.41	1.78	0.92	0.52	1.12	1.26	0.92	0.89	1.35	2.50
n	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Mean	2.89	3.18	3.16	2.32	2.82	1.92	3.58	3.53	2.21	1.95	3.00	3.11	2.19	1.94	3.11	3.89	2.11	2.11	2.29	2.84
variance	1.93	1.56	2.03	1.68	1.51	1.53	1.66	1.88	1.09	1.66	2.11	1.49	1.32	0.74	1.43	2.04	1.65	1.27	1.45	1.97
n	37	38	37	38	38	38	38	38	38	37	37	37	37	36	37	37	37	37	38	38

Year 9 v Year 8

95%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	-	low	-	low	low	low	high	-	low	-	low	-	-	low	-	-	-	low	-	-
99%	-	-	-	low	-	low	-	-	-	-	low	-	-	-	-	-	-	-	-	-

Year 10 v Year 8

95%	-	low	-	low	low	-	-	-	low	-	low	-	-	-	high	-	-	-	-	-
99%	-	-	-	low	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

50	17	33	25	58	83	42	58	33	50	100	100	0	18	0	8	27	67
17	25	8	8	25	8	25	25	17	33	0	0	0	82	0	17	36	33
17	42	17	42	0	0	25	17	33	8	0	0	17	0	33	25	18	0
8	17	0	8	0	0	8	0	0	0	0	0	83	0	67	50	18	0
8	0	42	17	17	8	0	0	17	8	0	0	0	0	0	0	0	0

27	9	9	0	0	9	0	18	9	27	100	100	0	9	9	9	9	40
36	27	0	36	36	27	9	55	18	27	0	0	0	91	0	18	55	60
18	36	36	27	36	45	55	9	36	27	0	0	10	0	0	18	36	0
18	18	18	27	27	18	18	18	18	18	0	0	90	0	91	55	0	0
0	9	36	9	0	0	18	0	18	0	0	0	0	0	0	0	0	0

33	27	7	13	47	20	7	53	20	27	100	100	0	14	7	7	36	79
27	7	0	13	33	27	7	27	27	47	0	0	0	86	0	21	64	21
33	60	13	33	13	40	67	7	13	20	0	0	7	0	7	43	0	0
7	7	13	27	0	7	0	7	27	7	0	0	93	0	86	29	0	0
0	0	67	13	7	7	20	7	13	0	0	0	0	0	0	0	0	0

37	18	16	13	37	37	16	45	21	34	100	100	0	14	5	8	25	64
26	18	3	18	32	21	13	34	21	37	0	0	0	86	0	19	53	36
24	47	21	34	16	29	50	11	26	18	0	0	11	0	14	30	17	0
11	13	11	21	8	8	8	8	16	8	0	0	89	0	81	43	6	0
3	3	50	13	8	5	13	3	16	3	0	0	0	0	0	0	0	0

2.08	2.58	3.08	2.83	1.92	1.42	2.00	1.58	2.50	1.83	1.00	1.00	3.83	1.82	3.67	3.17	2.27	1.33
1.90	0.99	3.36	1.97	2.27	1.36	1.09	0.63	2.09	1.42	0.00	0.00	0.15	0.16	0.24	1.06	1.22	0.24
12	12	12	12	12	12	12	12	12	12	12	12	12	11	12	12	11	12
2.27	2.91	3.73	3.09	2.91	2.73	3.45	2.27	3.18	2.36	1.00	1.00	3.90	1.91	3.73	3.18	2.27	1.60
1.22	1.29	1.62	1.09	0.69	0.82	0.87	1.02	1.56	1.25	0.00	0.00	0.10	0.09	0.82	1.16	0.42	0.27
11	11	11	11	11	11	11	11	11	11	11	10	10	11	11	11	11	10
2.13	2.47	4.33	3.13	1.87	2.53	3.20	1.87	2.87	2.07	1.00	1.00	3.93	1.86	3.71	2.93	1.64	1.21
0.98	0.98	1.38	1.55	1.27	1.27	1.17	1.55	1.98	0.78	0.00	0.00	0.07	0.13	0.68	0.84	0.25	0.18
15	15	15	15	15	15	15	15	15	15	14	14	14	14	14	14	14	14
2.16	2.63	3.76	3.03	2.18	2.24	2.89	1.89	2.84	2.08	1.00	1.00	3.89	1.86	3.70	3.08	2.03	1.36
1.27	1.05	2.24	1.49	1.56	1.43	1.39	1.12	1.87	1.10	0.00	0.00	0.10	0.12	0.55	0.97	0.66	0.24
38	38	38	38	38	38	38	38	38	38	37	36	36	36	37	37	36	36

-	-	-	-	high	high	high	high	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	high	high	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	low	-	-	-	-	-	-	-	-	-	-	-	low	low
-	-	-	-	low	-	-	-	-	-	-	-	-	-	-	-	low	-

-	-	high	-	-	high	high	-	-	-	-	-	-	-	-	-	low	-
-	-	-	-	-	high	high	-	-	-	-	-	-	-	-	-	-	-

1	coolness does not depend on being good at PE/Sport.
2	boys do not have to be good at sport.
3	popularity is not dependant upon sporting ability.
4	men are not always stronger than women.
5	boys and girls have the same ability in PE/Sport.
6	there are adequate PE/sport choices available to students.
7	it should be the students responsibility to choose the sports they want.
8	teachers are equally concerned about boys and girls PE/sport programs.
9	boys should do less PE/sport.
10	PE/sport should be electives in schools.
11	it is the choice of the students to do PE/sport.
12	teacher always think about student needs when planning the curriculum.
13	boys don't need contact sports.
14	boys don't enjoy PE/sport.
15	the teacher is the main reason for disliking PE/sport.
16	students should be made to change their clothes for PE/sport.
17	individual sports are more challenging.
18	school PE/sport is more appealing to boys than community based sports.
19	teachers should not participate with the students.
20	all boys should play PE/sport together regardless of their ability.

Year 8

%1	5	5	11	37	29	58	3	26	34	32	5	24	41	54	11	24	38	38	26	21
%2	16	5	24	11	11	21	3	11	16	19	11	8	24	14	6	8	16	11	11	16
%3	32	37	26	18	18	13	8	24	39	30	22	46	19	22	44	22	19	32	24	16
%4	18	18	21	13	18	8	21	16	3	3	16	14	11	5	6	14	11	8	13	21
%5	29	34	18	21	24	0	66	24	8	16	46	8	5	5	33	32	16	11	26	26

Year 9

%1	18	9	0	18	9	73	0	9	64	73	45	27	36	64	9	9	55	45	45	27
%2	18	18	27	45	0	27	0	0	18	18	36	18	36	36	9	9	18	45	9	9
%3	27	36	27	18	73	0	18	55	18	0	9	27	27	0	45	36	27	9	27	9
%4	9	18	18	9	9	0	0	0	0	0	9	18	0	0	18	27	0	0	0	27
%5	27	18	27	9	9	0	82	36	0	9	0	9	0	0	18	18	0	0	18	27

Year 10

%1	16	13	16	39	20	65	3	6	39	33	3	19	42	42	6	6	42	45	23	39
%2	19	13	23	19	40	19	3	6	19	7	19	23	19	32	16	6	16	10	32	10
%3	35	48	42	19	20	13	23	45	35	30	32	35	19	23	61	19	29	39	32	32
%4	13	6	3	6	0	0	23	6	6	7	10	6	13	0	3	23	6	3	3	3
%5	16	19	16	16	20	3	48	35	0	23	35	16	6	3	13	45	6	3	10	16

All

%1	11	9	11	35	23	63	3	16	40	38	10	23	41	51	9	15	42	42	28	29
%2	18	10	24	19	20	21	3	8	18	14	18	15	24	24	10	8	16	15	19	13
%3	33	41	33	19	27	11	15	36	35	26	24	39	20	19	51	23	24	32	28	21
%4	15	14	14	10	10	4	19	10	4	4	13	11	10	3	6	19	8	5	8	15
%5	24	26	19	18	20	1	61	30	4	18	35	11	5	4	23	35	10	6	19	23

Mean: 8	3.50	3.71	3.13	2.71	2.97	1.71	4.45	3.00	2.34	2.51	3.86	2.73	2.16	1.95	3.44	3.22	2.51	2.43	3.03	3.16
variance	1.50	1.35	1.63	2.54	2.46	0.97	0.90	2.32	1.47	1.98	1.62	1.48	1.53	1.50	1.74	2.51	2.26	1.86	2.40	2.30
n	38	38	38	38	38	38	38	38	38	37	37	37	37	37	36	37	37	37	38	38
Mean: 9	3.09	3.18	3.45	2.45	3.09	1.27	4.64	3.55	1.55	1.55	1.82	2.64	1.91	1.36	3.27	3.36	1.73	1.64	2.36	3.18
variance	2.29	1.56	1.47	1.47	0.89	0.22	0.65	1.67	0.67	1.47	0.96	1.85	0.69	0.25	1.42	1.45	0.82	0.45	2.45	2.76
n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean: 10	2.94	3.06	2.81	2.42	2.60	1.58	4.10	3.58	2.10	3.77	3.55	2.77	2.23	1.90	3.00	3.94	2.19	2.10	2.45	2.48
variance	1.66	1.53	1.56	2.18	1.90	0.92	1.16	1.52	1.02	1.87	1.59	1.71	1.71	0.96	1.00	1.53	1.56	1.29	1.39	2.12
n	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Mean	3.23	3.39	3.05	2.56	2.85	1.60	4.34	3.30	2.14	2.87	3.46	2.73	2.15	1.85	3.24	3.52	2.28	2.19	2.71	2.90
variance	1.70	1.51	1.59	2.22	2.03	0.85	0.99	1.96	1.23	1.85	1.94	1.58	1.46	1.13	1.41	2.05	1.82	1.49	2.06	2.34
n	80	80	80	80	79	80	80	80	80	79	79	79	79	79	78	79	79	79	80	80

Year 9 v Year 8

95%	-	-	-	-	-	-	-	-	low	low	low	-	-	-	-	-	-	low	-	-
99%	-	-	-	-	-	-	-	-	-	-	low	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	-	-	-	-	-	-	-	-	-	-	high	-	-	high	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-	-

Year 10 v Year 8

95%	low	low	-	-	-	-	-	high	-	-	-	-	-	-	-	high	-	-	low	low
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

21	older PE teachers are better because they have more experience.
22	PE teachers do not provide enough discipline.
23	PE/sport should have mixed classes.
24	PE teachers don't care about students sport outside school.
25	school PE/sport only provides opportunities to try traditional sports.
26	boys enjoy the traditional sports the most.
27	school PE/sport has not motivated me to join community based sports.
28	PE/sport do not affect my health and fitness in any way.
29	PE could do more to teach the negative aspects of smoking and alcohol.
30	PE teachers are not good role models of health and fitness.
31	I do not play PE/sport.
32	my school PE/sport is boys only
33	I never try to get out of doing PE/sport
34	school PE/sport is not better than community sport
35	I never smoke cigarettes
36	I never drink alcohol
37	I never try to eat healthy food
38	I do not care about the food I eat

37	21	16	11	26	42	21	34	18	8	95	32	3	39	5	0	13	58
13	8	5	16	29	18	8	32	18	21	5	68	11	61	0	5	58	42
45	61	24	34	21	16	32	21	29	37	0	0	21	0	5	18	24	0
3	8	21	18	13	13	18	5	21	13	0	0	66	0	89	76	5	0
3	3	34	21	11	11	21	8	13	21	0	0	0	0	0	0	0	0

36	18	9	9	64	45	18	45	36	45	100	100	0	10	9	0	18	73
18	27	0	9	18	36	9	27	27	18	0	0	0	90	0	9	64	27
36	55	36	55	18	18	18	18	9	36	0	0	18	0	0	18	18	0
0	0	9	18	0	0	18	0	9	0	0	0	82	0	91	73	0	0
9	0	45	9	0	0	36	9	18	0	0	0	0	0	0	0	0	0

26	13	19	17	40	30	10	16	10	20	100	36	9	32	9	4	9	52
19	10	23	14	27	17	30	35	23	23	0	64	5	68	13	9	70	48
42	71	29	28	27	43	43	29	43	37	0	0	18	0	13	43	13	0
10	6	16	24	0	3	7	13	13	10	0	0	68	0	65	43	9	0
3	0	13	17	7	7	10	6	10	10	0	0	0	0	0	0	0	0

33	18	16	13	37	38	16	29	18	18	97	44	4	32	7	1	13	58
16	11	11	14	27	20	16	33	22	22	3	56	7	68	4	7	63	42
43	64	28	35	23	27	34	24	32	37	0	0	20	0	7	26	19	0
5	6	18	21	6	8	14	8	16	10	0	0	69	0	82	65	6	0
4	1	28	18	8	8	19	8	13	14	0	0	0	0	0	0	0	0

2.21	2.63	3.53	3.24	2.53	2.32	3.11	2.21	2.92	3.18	1.05	1.68	3.50	1.61	3.79	3.71	2.21	1.42
1.14	1.00	2.04	1.59	1.72	2.01	1.99	1.47	1.70	1.51	0.05	0.23	0.64	0.24	0.50	0.32	0.55	0.25
38	38	38	38	38	38	38	38	38	38	38	37	38	36	38	38	38	38
2.27	2.36	3.82	3.09	1.55	1.73	3.45	2.00	2.45	1.91	1.00	1.00	3.82	1.90	3.73	3.64	2.00	1.27
1.62	0.65	1.76	1.09	0.67	0.62	2.47	1.60	2.47	0.89	0.00	0.00	0.16	0.10	0.82	0.45	0.40	0.22
11	11	11	11	11	11	11	11	11	11	11	11	11	10	11	11	11	11
2.45	2.71	2.81	3.10	2.07	2.40	2.77	2.58	2.90	2.67	1.00	1.64	3.45	1.68	3.35	3.26	2.22	1.48
1.19	0.61	1.69	1.81	1.31	1.35	1.15	1.25	1.20	1.47	0.00	0.24	0.93	0.23	1.06	0.66	0.54	0.26
31	31	31	29	30	30	30	31	30	30	22	22	22	22	23	23	23	23
2.31	2.63	3.29	3.17	2.22	2.27	3.03	2.33	2.85	2.81	1.03	1.56	3.54	1.68	3.64	3.56	2.18	1.42
1.20	0.79	1.98	1.57	1.50	1.58	1.74	1.41	1.59	1.57	0.03	0.25	0.65	0.22	0.74	0.48	0.52	0.25
80	80	80	78	79	79	79	80	79	79	71	70	71	68	72	72	72	72

-	-	-	-	low	-	-	-	-	low	-	low	-	high	-	-	-	-
-	-	-	-	-	-	-	-	-	low	-	low	-	-	-	-	-	-

-	-	low	-	-	high	-	-	-	high	-	high	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-

-	-	low	-	-	-	-	-	-	low	-	-	-	-	low	low	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
coolness does not depend on being good at PE/Sport.	boys do not have to be good at sport.	popularity is not dependant upon sporting ability.	men are not always stronger than women.	boys and girls have the same ability in PE/Sport.	there are adequate PE/sport choices available to students.	it should be the students responsibility to choose the sports they want.	teachers are equally concerned about boys and girls PE/sport programs.	boys should do less PE/sport.	PE/sport should be electives in schools.	it is the choice of the students to do PE/sport.	teacher always think about student needs when planning the curriculum.	boys don't need contact sports.	boys don't enjoy PE/sport.	the teacher is the main reason for disliking PE/sport.	students should be made to change their clothes for PE/sport.	individual sports are more challenging.	school PE/sport is more appealing to boys than community based sports.	teachers should not participate with the students.	all boys should play PE/sport together regardless of their ability.

Year 8

%1	0	20	10	30	20	60	40	10	30	30	20	10	40	30	10	0	40	30	20	10
%2	20	10	20	0	20	20	10	0	10	20	0	30	20	30	30	20	30	10	50	30
%3	50	10	30	30	30	0	20	50	40	10	50	40	30	30	60	60	10	50	0	10
%4	0	50	30	10	20	0	20	10	0	20	20	20	0	0	0	10	10	0	0	10
%5	30	10	10	30	10	20	10	30	20	20	10	0	10	10	0	10	10	10	30	40

Year 9

%1	16	17	16	37	16	63	11	37	47	58	21	11	42	63	16	21	68	42	53	42
%2	16	22	16	11	5	16	5	5	16	11	16	11	11	21	5	5	5	21	11	21
%3	26	33	32	26	37	11	16	42	32	21	32	56	37	16	47	32	11	21	21	21
%4	16	11	21	11	16	11	26	5	5	11	16	6	5	0	11	11	0	11	5	11
%5	26	17	16	16	26	0	42	11	0	0	16	17	5	0	21	32	16	5	11	5

Year 10

%1	14	0	15	38	8	62	0	8	54	69	8	15	46	54	23	15	46	69	38	38
%2	36	15	23	23	15	15	8	15	8	15	23	31	8	23	15	15	8	8	31	38
%3	29	54	15	15	62	0	46	54	31	0	38	38	8	15	38	38	15	8	15	0
%4	0	8	15	0	0	0	15	15	8	8	15	15	31	8	15	15	23	8	8	8
%5	21	23	31	23	15	23	31	8	0	8	15	0	8	0	8	15	8	8	8	15

All

%1	12	12	14	37	14	63	14	21	44	56	16	12	44	53	16	14	56	49	42	35
%2	23	19	19	12	14	16	7	7	12	14	14	21	12	23	14	12	12	14	26	28
%3	33	33	28	23	42	5	26	47	35	12	37	45	26	19	49	42	12	23	14	12
%4	7	19	21	7	12	5	21	9	5	12	16	12	12	2	9	12	9	7	5	9
%5	26	17	19	21	19	12	33	16	5	7	16	10	7	2	12	21	12	7	14	16

Mean: 8	3.40	3.20	3.10	3.10	2.80	2.00	2.50	3.50	2.70	2.80	3.00	2.70	2.20	2.30	2.50	3.10	2.20	2.50	2.70	3.40
variance	1.38	1.96	1.43	2.77	1.73	2.67	2.28	1.61	2.23	2.62	1.56	0.90	1.73	1.57	0.50	0.77	1.96	1.61	2.68	2.49
n	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Mean: 9	3.21	2.89	3.05	2.58	3.32	1.68	3.84	2.47	1.95	1.84	2.89	3.06	2.21	1.53	3.16	3.26	1.89	2.16	2.11	2.16
variance	2.06	1.75	1.72	2.26	1.89	1.12	1.81	1.82	1.05	1.25	1.88	1.35	1.51	0.60	1.70	2.32	2.32	1.58	1.99	1.58
n	19	18	19	19	19	19	19	19	19	19	19	18	19	19	19	19	19	19	19	19
Mean: 10	2.79	3.29	3.21	2.36	2.93	2.00	3.79	3.14	2.00	1.64	3.21	2.71	2.36	1.71	2.71	3.00	2.29	1.71	2.07	2.14
variance	1.87	1.14	2.18	2.55	1.15	2.77	1.10	1.21	1.23	1.63	1.57	1.30	2.40	0.99	1.45	1.54	2.22	1.76	1.61	2.13
n	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Mean	3.12	3.10	3.12	2.63	3.07	1.86	3.51	2.93	2.14	2.00	3.02	2.86	2.26	1.77	2.86	3.14	2.09	2.09	2.23	2.44
variance	1.82	1.55	1.72	2.43	1.59	1.93	1.92	1.69	1.41	1.81	1.64	1.20	1.77	0.99	1.36	1.65	2.13	1.66	1.99	2.16
n	43	42	43	43	43	43	43	43	43	43	43	42	43	43	43	43	43	43	43	43

Year 9 v Year 8

95%	-	-	-	-	-	-	high	low	-	low	-	-	-	low	-	-	-	-	-	low
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 8

95%	-	-	-	-	-	-	high	-	-	low	-	-	-	-	-	-	-	-	-	low
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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30	10	50	40	30	20	20	40	30	30	90	30	0	63	10	10	30	70
10	20	0	0	20	20	20	40	30	10	10	70	0	38	0	10	50	30
40	40	10	40	20	30	60	10	20	30	0	0	33	0	10	0	20	0
10	10	10	10	20	10	0	10	10	20	0	0	67	0	80	80	0	0
10	20	30	10	10	20	0	0	10	10	0	0	0	0	0	0	0	0

50	12	50	16	58	32	26	47	32	21	94	6	0	39	0	0	11	56
11	24	11	16	5	11	21	21	5	11	6	94	0	61	0	6	61	44
28	53	22	37	26	47	32	26	37	37	0	0	17	0	0	17	22	0
0	6	0	0	5	0	5	5	16	16	0	0	83	0	100	78	6	0
11	6	17	32	5	11	16	0	11	16	0	0	0	0	0	0	0	0

15	0	31	23	23	62	0	50	33	8	100	25	8	25	0	0	25	45
8	8	8	23	31	15	42	25	33	50	0	75	0	75	0	8	42	55
62	62	31	38	38	8	17	8	17	17	0	0	25	0	8	25	33	0
0	15	0	8	0	8	17	17	0	17	0	0	67	0	92	67	0	0
15	15	31	8	8	8	25	0	17	8	0	0	0	0	0	0	0	0

36	7	43	23	42	40	19	48	31	21	95	18	3	38	2	2	20	58
10	17	7	16	16	14	26	26	21	21	5	83	0	62	0	7	54	43
40	54	21	37	28	30	33	17	26	29	0	0	23	0	5	15	24	0
2	10	2	5	7	5	7	10	10	17	0	0	75	0	93	76	2	0
12	12	26	19	7	12	14	0	12	12	0	0	0	0	0	0	0	0

2.60	3.10	2.70	2.50	2.60	2.90	2.40	1.90	2.40	2.70	1.10	1.70	3.67	1.38	3.60	3.50	1.90	1.30
1.82	1.66	3.57	2.06	2.04	2.10	0.71	0.99	1.82	2.01	0.10	0.23	0.25	0.27	0.93	1.17	0.54	0.23
10	10	10	10	10	10	10	10	10	10	10	10	9	8	10	10	10	10
2.11	2.71	2.22	3.16	1.95	2.47	2.63	1.89	2.68	2.95	1.06	1.94	3.83	1.61	4.00	3.72	2.22	1.44
1.87	0.97	2.30	2.14	1.61	1.60	1.91	0.99	1.89	1.83	0.06	0.06	0.15	0.25	0.00	0.33	0.54	0.26
18	17	18	19	19	19	19	19	19	19	18	17	18	18	18	18	18	18
2.79	3.36	3.07	2.50	2.29	1.79	3.08	1.85	2.31	2.54	1.00	1.77	3.54	1.77	3.92	3.62	2.08	1.50
1.57	0.71	2.84	1.35	1.30	1.72	1.91	1.31	1.90	1.44	0.00	0.19	0.77	0.19	0.08	0.42	0.58	0.27
14	14	14	14	14	14	13	13	13	13	13	13	13	13	13	13	13	12
2.45	3.02	2.62	2.79	2.21	2.35	2.71	1.88	2.50	2.76	1.05	1.83	3.70	1.62	3.88	3.63	2.10	1.43
1.77	1.07	2.78	1.88	1.60	1.85	1.62	1.03	1.82	1.70	0.05	0.15	0.37	0.24	0.26	0.54	0.54	0.25
42	41	42	43	43	43	42	42	42	42	41	40	40	39	41	41	41	40

-	-	-	-	-	-	-	-	-	-	-	high	-	-	high	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	-	low	-	-	-	-	-	-	-	high	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
coolness does not depend on being good at PE/Sport.	boys do not have to be good at sport.	popularity is not dependant upon sporting ability.	men are not always stronger than women.	boys and girls have the same ability in PE/sport.	there are adequate PE/sport choices available to students.	it should be the students responsibility to choose the sports they want.	teachers are equally concerned about boys and girls PE/sport programs.	boys should do less PE/sport.	PE/sport should be electives in schools.	it is the choice of the students to do PE/sport.	teacher always think about student needs when planning the curriculum.	boys don't need contact sports.	boys don't enjoy PE/sport.	the teacher is the main reason for disliking PE/sport.	students should be made to change their clothes for PE/sport.	individual sports are more challenging.	school PE/sport is more appealing to boys than community based sports.	teachers should not participate with the students.	all boys should play PE/sport together regardless of their ability.

Year 8

%1	15	15	11	30	20	80	0	20	35	74	25	0	40	60	5	10	65	40	40	25
%2	45	20	32	30	25	20	5	15	15	11	20	15	15	25	16	15	10	20	15	30
%3	25	20	21	20	35	0	11	30	40	0	5	50	20	15	32	25	20	35	25	5
%4	15	10	21	10	10	0	37	10	0	5	30	25	15	0	32	5	0	0	15	15
%5	0	35	16	10	10	0	47	25	10	11	20	10	10	0	16	45	5	5	5	25

Year 9

%1	25	25	0	50	50	75	0	0	75	50	50	0	50	50	25	0	75	25	67	25
%2	25	0	75	50	25	25	25	25	25	25	0	0	50	0	0	0	0	50	33	50
%3	25	50	25	0	25	0	50	0	0	25	0	50	0	50	25	0	25	0	0	0
%4	25	25	0	0	0	0	0	0	0	0	25	50	0	0	0	0	0	0	0	0
%5	0	0	0	0	0	0	25	75	0	0	25	0	0	0	50	100	0	25	0	25

Year 10

%1	10	10	14	43	20	57	5	10	33	43	19	5	33	48	5	19	52	43	14	19
%2	5	14	24	5	30	14	19	5	14	14	19	14	24	19	10	10	14	10	19	14
%3	38	24	14	29	30	19	10	33	33	5	14	48	29	24	52	24	24	43	52	19
%4	33	19	29	19	15	0	14	5	5	5	5	19	5	5	14	5	0	0	0	19
%5	14	33	19	5	5	10	52	48	14	33	43	14	10	5	19	43	10	5	14	29

All

%1	13	13	11	38	23	69	2	13	38	57	24	2	38	53	7	13	60	40	30	22
%2	24	16	32	20	27	18	14	11	16	14	18	13	22	20	11	11	11	18	18	24
%3	31	24	18	22	32	9	14	29	33	5	9	49	22	22	41	22	22	36	36	11
%4	24	16	23	13	11	0	23	7	2	5	18	24	9	2	20	4	0	0	7	16
%5	7	31	16	7	7	4	48	40	11	20	31	11	9	2	20	49	7	7	9	27

Mean: 8	2.40	3.30	3.00	2.40	2.65	1.20	4.26	3.05	2.35	1.68	3.00	3.30	2.40	1.55	3.37	3.60	1.70	2.10	2.30	2.85
variance	0.88	2.33	1.67	1.73	1.50	0.17	0.76	2.16	1.61	1.89	2.42	0.75	2.04	0.58	1.25	2.15	1.27	1.25	1.69	2.56
n	20	20	19	20	20	20	19	20	20	19	20	20	20	20	19	20	20	20	20	20
Mean: 9	2.50	2.75	2.25	1.50	1.75	1.25	3.25	4.25	1.25	1.75	2.75	3.50	1.50	2.00	3.50	5.00	1.50	2.50	1.33	2.50
variance	1.67	1.58	0.25	0.33	0.92	0.25	1.58	2.25	0.25	0.92	4.25	0.33	0.33	1.33	3.67	0.00	1.00	3.00	0.33	3.00
n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4
Mean: 10	3.38	3.52	3.14	2.38	2.55	1.90	3.90	3.76	2.52	2.71	3.33	3.24	2.33	2.00	3.33	3.43	2.00	2.14	2.81	3.24
variance	1.25	1.86	1.93	1.85	1.31	1.69	1.89	1.89	1.96	3.31	2.73	1.09	1.63	1.40	1.13	2.56	1.70	1.33	1.36	2.29
n	21	21	21	21	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Mean	2.87	3.36	3.00	2.31	2.52	1.53	4.00	3.49	2.33	2.18	3.13	3.29	2.29	1.80	3.36	3.64	1.82	2.16	2.48	3.00
variance	1.30	2.01	1.67	1.67	1.37	0.98	1.40	2.12	1.73	2.66	2.62	0.85	1.71	1.03	1.31	2.28	1.42	1.36	1.56	2.41
n	45	45	44	45	44	45	44	45	45	44	45	45	45	45	44	45	45	45	44	45

Year 9 v Year 8

95%	-	-	-	-	-	-	low	-	-	-	-	-	-	-	-	high	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	low	-	-	high	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 8

95%	high	-	-	-	-	high	-	-	-	high	-	-	-	-	-	-	-	-	-	-
99%	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

68	10	30	15	50	35	25	45	20	20	94	0	6	22	0	0	0	63
16	30	10	15	15	40	20	20	30	35	6	100	0	78	0	6	83	37
11	45	15	15	25	10	10	20	30	25	0	0	22	0	6	28	17	0
0	10	15	35	5	5	30	10	10	15	0	0	72	0	94	67	0	0
5	5	30	20	5	10	15	5	10	5	0	0	0	0	0	0	0	0

50	0	50	50	50	0	0	67	33	67	100	0	0	33	0	0	0	100
0	0	0	25	25	75	33	0	33	0	0	100	0	67	0	0	100	0
25	100	25	0	0	0	33	33	33	0	0	0	0	0	0	25	0	0
25	0	0	25	25	0	33	0	0	33	0	0	100	0	100	75	0	0
0	0	25	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0

20	5	52	29	52	24	14	57	38	24	95	0	5	19	5	0	20	90
15	5	5	14	29	24	33	24	24	29	5	100	0	81	0	5	65	10
60	70	10	43	10	43	38	14	24	29	0	0	43	0	5	40	15	0
0	10	14	10	5	5	5	5	5	10	0	0	52	0	90	55	0	0
5	10	19	5	5	5	10	0	10	10	0	0	0	0	0	0	0	0

44	7	42	24	51	27	18	52	30	25	95	0	5	21	2	0	10	80
14	16	7	16	22	36	27	20	27	30	5	100	0	79	0	5	76	20
35	61	13	27	16	24	25	18	27	25	0	0	31	0	5	33	14	0
2	9	13	22	7	4	18	7	7	14	0	0	64	0	93	62	0	0
5	7	24	11	4	9	11	2	9	7	0	0	0	0	0	0	0	0

1.58	2.70	3.05	3.30	2.00	2.15	2.90	2.10	2.60	2.50	1.06	2.00	3.61	1.78	3.94	3.61	2.17	1.37
1.15	0.96	2.79	1.91	1.47	1.61	2.20	1.57	1.52	1.32	0.06	0.00	0.60	0.18	0.06	0.37	0.15	0.25
19	20	20	20	20	20	20	20	20	20	17	16	18	18	18	18	18	19
2.25	3.00	2.50	2.00	2.00	2.75	3.00	1.67	2.00	2.00	1.00	2.00	4.00	1.67	4.00	3.75	2.00	1.00
2.25	0.00	3.67	2.00	2.00	2.25	1.00	1.33	1.00	3.00	0.00	0.00	0.00	0.33	0.00	0.25	0.00	0.00
4	4	4	4	4	4	3	3	3	3	3	3	3	3	4	4	4	4
2.55	3.15	2.43	2.48	1.81	2.43	2.62	1.67	2.24	2.52	1.05	2.00	3.43	1.81	3.80	3.50	1.95	1.10
1.00	0.77	2.86	1.36	1.26	1.16	1.25	0.83	1.69	1.56	0.05	0.00	0.56	0.16	0.48	0.37	0.37	0.09
20	20	21	21	21	21	21	21	21	21	21	19	21	21	20	20	20	21
2.09	2.93	2.71	2.80	1.91	2.33	2.77	1.86	2.39	2.48	1.05	2.00	3.55	1.79	3.88	3.57	2.05	1.20
1.32	0.81	2.85	1.80	1.36	1.41	1.62	1.19	1.54	1.46	0.05	0.00	0.55	0.17	0.25	0.35	0.24	0.17
43	44	45	45	45	45	44	44	44	44	41	38	42	42	42	42	42	44

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

high	-	-	low	-	-	-	-	-	-	-	-	-	-	-	-	-	low
high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1	coolness does not depend on being good at PE/Sport.
2	boys do not have to be good at sport.
3	popularity is not dependant upon sporting ability.
4	men are not always stronger than women.
5	boys and girls have the same ability in PE/Sport.
6	there are adequate PE/sport choices available to students.
7	it should be the students responsibility to choose the sports they want.
8	teachers are equally concerned about boys and girls PE/sport programs.
9	boys should do less PE/sport.
10	PE/sport should be electives in schools.
11	it is the choice of the students to do PE/sport.
12	teacher always think about student needs when planning the curriculum.
13	boys don't need contact sports.
14	boys don't enjoy PE/sport.
15	the teacher is the main reason for disliking PE/sport.
16	students should be made to change their clothes for PE/sport.
17	individual sports are more challenging.
18	school PE/sport is more appealing to boys than community based sports.
19	teachers should not participate with the students.
20	all boys should play PE/sport together regardless of their ability.

Year 9

%1	0	5	10	48	24	86	0	5	43	71	5	24	55	62	0	24	67	62	29	33
%2	43	29	19	24	43	5	0	10	14	10	14	0	35	24	5	5	24	10	33	29
%3	33	38	24	19	19	0	10	52	38	5	38	33	10	14	67	14	10	24	14	14
%4	10	19	29	5	10	5	19	5	0	10	19	24	0	0	5	10	0	5	5	5
%5	14	10	19	5	5	5	71	29	5	5	24	19	0	0	24	48	0	0	19	19

Year 10

%1	36	24	12	40	8	68	8	12	32	57	17	26	30	52	14	22	30	39	48	36
%2	24	24	16	24	24	12	16	12	12	9	17	17	22	17	18	9	13	22	16	20
%3	24	28	36	4	28	16	28	48	40	26	30	30	30	30	50	30	48	35	24	28
%4	4	4	8	12	16	0	0	4	4	0	17	9	4	0	0	4	4	4	4	0
%5	12	20	28	20	24	4	48	24	12	9	17	17	13	0	18	35	4	0	8	16

All

%1	19	15	11	43	15	74	4	9	36	64	11	25	42	57	7	23	48	50	40	34
%2	34	28	19	26	32	9	9	11	13	9	16	9	28	20	12	7	18	16	23	26
%3	28	32	30	11	26	11	21	51	40	16	34	32	21	23	58	23	30	30	19	21
%4	6	11	17	9	13	2	9	4	2	5	18	16	2	0	2	7	2	5	4	2
%5	13	15	23	13	15	4	57	26	9	7	20	18	7	0	21	41	2	0	13	17

Mean: 9	2.95	3.00	3.29	1.95	2.29	1.38	4.62	3.43	2.10	1.67	3.43	3.14	1.55	1.52	3.48	3.52	1.43	1.71	2.52	2.48
variance	1.15	1.10	1.61	1.35	1.21	1.15	0.45	1.36	1.29	1.53	1.36	2.03	0.47	0.56	0.86	2.86	0.46	1.01	2.16	2.26
n	21	21	21	21	21	21	21	21	21	21	21	21	20	21	21	21	21	21	21	21
Mean: 10	2.31	2.69	3.19	2.46	3.23	1.65	3.62	3.15	2.54	1.96	3.00	2.74	2.48	1.78	3.04	3.22	2.39	2.04	2.04	2.38
variance	1.74	1.98	1.84	2.50	1.62	1.12	2.01	1.58	1.70	1.68	1.82	2.02	1.81	0.81	1.86	2.45	1.25	0.95	1.64	1.93
n	26	26	26	26	26	26	26	26	26	23	23	23	23	23	23	23	23	23	26	26
Mean	2.60	2.83	3.23	2.23	2.81	1.53	4.06	3.28	2.34	1.82	3.20	2.93	2.05	1.66	3.25	3.36	1.93	1.89	2.26	2.43
variance	1.55	1.58	1.70	2.01	1.64	1.12	1.54	1.47	1.53	1.59	1.61	2.02	1.38	0.70	1.40	2.61	1.09	0.99	1.89	2.03
n	47	47	47	47	47	47	47	47	47	44	44	44	43	44	44	44	44	44	47	47

Year 10 v Year 9

95%	low	-	-	-	high	-	low	-	-	-	-	-	high	-	-	-	high	-	-	-
99%	-	-	-	-	high	-	low	-	-	-	-	-	high	-	-	-	high	-	-	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

43	43	10	15	55	70	5	43	14	5	89	11	0	18	20	25	5	47
29	14	5	10	25	15	10	19	10	14	11	89	0	82	5	0	55	53
19	33	33	25	10	10	33	10	19	38	0	0	20	0	0	20	15	0
0	0	10	0	5	0	19	5	14	14	0	0	80	0	75	55	25	0
10	10	43	50	5	5	33	24	43	29	0	0	0	0	0	0	0	0

32	17	28	20	48	40	8	38	13	42	100	10	5	14	5	10	14	50
24	25	4	28	20	20	21	21	25	17	0	90	5	86	0	10	59	50
36	46	40	28	24	20	33	29	42	25	0	0	10	0	5	10	5	0
8	8	16	8	4	8	4	13	8	13	0	0	80	0	91	71	23	0
0	4	12	16	4	12	33	0	13	4	0	0	0	0	0	0	0	0

36	28	19	17	50	52	7	39	13	24	95	10	2	15	12	17	9	50
28	20	4	20	22	17	15	22	17	15	5	90	2	85	2	5	58	50
28	41	38	28	20	17	35	20	33	33	0	0	15	0	5	17	9	0
4	4	13	4	4	4	11	9	11	13	0	0	80	0	81	62	23	0
4	7	26	30	4	9	33	11	26	15	0	0	0	0	0	0	0	0

2.05	2.19	3.71	3.60	1.80	1.55	3.67	2.48	3.62	3.48	1.11	1.89	3.80	1.82	3.30	3.05	2.60	1.53
1.55	1.66	1.81	2.46	1.33	1.10	1.43	2.76	2.25	1.46	0.10	0.10	0.17	0.15	1.59	1.63	0.88	0.26
21	21	21	20	20	20	21	21	21	21	19	19	20	17	20	20	20	19
2.19	2.60	2.81	2.73	2.00	2.35	3.32	2.16	2.84	2.24	1.00	1.90	3.67	1.87	3.78	3.41	2.35	1.48
0.96	1.00	1.76	1.72	1.28	1.92	1.81	1.14	1.31	1.52	0.00	0.09	0.63	0.12	0.45	1.02	0.96	0.26
26	25	26	26	26	26	25	25	25	25	23	21	21	23	23	22	23	23
2.13	2.41	3.21	3.11	1.91	2.00	3.48	2.30	3.20	2.80	1.05	1.90	3.73	1.85	3.56	3.24	2.47	1.50
1.20	1.31	1.95	2.19	1.28	1.69	1.63	1.86	1.85	1.85	0.05	0.09	0.40	0.13	1.01	1.31	0.92	0.26
47	46	47	46	46	46	46	46	46	46	42	40	41	40	43	42	43	42

-	-	low	low	-	high	-	-	low	low	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	low	-	-	-	-	-	-	-	-

1	coolness does not depend on being good at PE/Sport.
2	boys do not have to be good at sport.
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4	men are not always stronger than women.
5	boys and girls have the same ability in PE/Sport.
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Year 8

%1	23	15	23	15	15	62	15	8	46	83	25	8	42	75	8	17	42	67	31	38
%2	54	15	0	15	8	15	23	8	31	8	25	25	25	25	25	0	25	8	46	8
%3	8	8	31	23	38	8	23	38	23	0	25	25	25	0	67	42	25	25	8	8
%4	0	31	15	23	15	8	8	15	0	0	0	25	0	0	0	0	0	0	0	15
%5	15	31	31	23	23	8	31	31	0	8	25	17	8	0	0	42	8	0	15	31

Year 9

%1	11	14	15	43	25	57	0	14	32	35	11	7	35	48	0	19	37	52	26	12
%2	21	32	15	11	11	25	0	11	29	15	22	22	31	22	4	15	7	15	22	15
%3	32	25	44	21	21	11	21	29	25	31	11	37	15	26	50	11	48	30	37	42
%4	14	7	7	4	21	4	36	18	7	4	22	15	12	4	23	11	0	0	7	8
%5	21	21	19	21	21	4	43	29	7	15	33	19	8	0	23	44	7	4	7	23

Year 10

%1	8	17	8	50	33	75	8	42	33	17	17	25	50	17	8	8	42	42	0	17
%2	8	33	8	25	33	8	8	17	25	25	17	33	8	33	0	25	25	17	8	17
%3	42	8	42	17	17	17	42	25	25	42	17	25	25	50	42	33	25	33	42	8
%4	8	17	25	8	8	0	8	8	8	8	33	8	17	0	8	8	8	8	8	17
%5	33	25	17	0	8	0	33	8	8	8	17	8	0	0	42	25	0	0	42	42

All

%1	13	15	15	38	25	62	6	19	36	42	16	12	40	47	4	16	39	53	21	20
%2	26	28	10	15	15	19	8	11	28	16	22	25	24	25	8	14	16	14	25	14
%3	28	17	40	21	25	11	26	30	25	26	16	31	20	25	52	24	37	29	31	25
%4	9	15	13	9	17	4	23	15	6	4	20	16	10	2	14	8	2	2	6	12
%5	23	25	21	17	19	4	38	25	6	12	27	16	6	0	22	39	6	2	17	29

Mean: 8	2.31	3.46	3.31	3.23	3.23	1.85	3.15	3.54	1.77	1.42	2.75	3.17	2.08	1.25	2.58	3.50	2.08	1.58	2.23	2.92
variance	1.73	2.27	2.40	2.03	1.86	1.81	2.31	1.60	0.69	1.36	2.39	1.61	1.54	0.20	0.45	2.27	1.54	0.81	1.86	3.24
n	13	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	12	12	13	13
Mean: 9	3.14	2.89	3.00	2.50	3.04	1.71	4.21	3.36	2.29	2.50	3.44	3.15	2.27	1.85	3.74	3.48	2.33	1.89	2.48	3.26
variance	1.68	1.88	1.62	2.56	2.26	1.10	0.62	1.94	1.47	2.02	2.10	1.44	1.64	0.90	0.97	2.64	1.46	1.18	1.41	1.89
n	28	28	27	28	28	28	28	28	28	26	27	27	26	27	27	27	27	27	27	27
Mean: 10	3.50	3.00	3.33	1.83	2.25	1.42	3.50	2.25	2.33	2.67	3.17	2.42	2.08	2.33	3.75	3.17	2.00	2.08	3.83	3.50
variance	1.73	2.36	1.33	1.06	1.66	0.63	1.73	1.84	1.70	1.33	1.97	1.54	1.54	0.61	1.66	1.79	1.09	1.17	1.24	2.64
n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mean	3.02	3.06	3.15	2.53	2.91	1.68	3.79	3.15	2.17	2.28	3.22	2.98	2.18	1.82	3.47	3.41	2.20	1.86	2.73	3.23
variance	1.83	2.05	1.70	2.25	2.09	1.15	1.44	2.02	1.34	1.88	2.13	1.54	1.54	0.79	1.21	2.29	1.36	1.08	1.81	2.34
n	53	53	52	53	53	53	53	53	53	50	51	51	50	51	51	51	51	51	52	52

Year 9 v Year 8

95%	high	-	-	-	-	-	high	-	-	high	-	-	-	high	high	-	-	-	-	-
99%	-	-	-	-	-	-	high	-	-	-	-	-	-	-	high	-	-	-	-	-

Year 10 v Year 9

95%	-	-	-	-	-	-	low	low	-	-	-	low	-	-	-	-	-	-	high	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	high	-

Year 10 v Year 8

95%	high	-	-	low	low	-	-	low	-	high	-	-	-	high	high	-	-	-	high	-
99%	-	-	-	low	-	-	-	-	-	high	-	-	-	high	high	-	-	-	high	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

46	8	23	23	38	54	33	75	50	33	100	100	0	23	8	8	31	77
8	15	15	23	54	23	25	17	17	25	0	0	0	77	0	8	69	23
46	69	15	23	0	15	33	8	17	33	0	0	23	0	0	8	0	0
0	0	0	15	0	0	8	0	8	0	0	0	77	0	92	77	0	0
0	8	46	15	8	8	0	0	8	8	0	0	0	0	0	0	0	0

48	19	19	11	37	41	15	41	22	15	100	96	4	8	0	4	11	57
33	15	15	22	26	22	7	26	4	19	0	4	0	92	7	11	82	43
19	59	15	33	33	22	67	22	33	52	0	0	23	0	4	21	7	0
0	4	7	7	0	11	4	0	11	4	0	0	73	0	89	64	0	0
0	4	44	26	4	4	7	11	30	11	0	0	0	0	0	0	0	0

33	17	8	8	17	58	17	42	8	8	100	67	8	25	0	9	8	33
25	0	0	8	33	17	33	25	8	0	0	33	0	75	17	9	75	67
33	75	33	42	33	17	25	25	67	42	0	0	42	0	8	18	0	0
8	0	17	17	0	8	8	8	0	17	0	0	50	0	75	64	17	0
0	8	42	25	17	0	17	0	17	33	0	0	0	0	0	0	0	0

44	15	17	13	33	48	20	49	25	18	100	90	4	16	2	6	15	57
25	12	12	19	35	21	18	24	8	16	0	10	0	84	8	10	77	43
29	65	19	33	25	19	49	20	37	45	0	0	27	0	4	17	4	0
2	2	8	12	0	8	6	2	8	6	0	0	69	0	87	67	4	0
0	6	44	23	8	4	8	6	22	16	0	0	0	0	0	0	0	0

2.00	2.85	3.31	2.77	1.85	1.85	2.17	1.33	2.08	2.25	1.00	1.00	3.77	1.77	3.77	3.54	1.69	1.23
1.00	0.81	3.06	2.03	1.14	1.47	1.06	0.42	1.90	1.48	0.00	0.00	0.19	0.19	0.69	0.94	0.23	0.19
13	13	13	13	13	13	12	12	12	12	13	12	13	13	13	13	13	13
1.70	2.59	3.44	3.15	2.07	2.15	2.81	2.15	3.22	2.78	1.00	1.04	3.65	1.92	3.82	3.46	1.96	1.43
0.60	0.94	2.64	1.82	1.07	1.44	1.00	1.67	2.26	1.26	0.00	0.04	0.48	0.07	0.30	0.70	0.18	0.25
27	27	27	27	27	27	27	27	27	27	27	25	26	26	28	28	28	28
2.17	2.83	3.83	3.42	2.67	1.75	2.75	2.00	3.08	3.67	1.00	1.33	3.33	1.75	3.58	3.36	2.25	1.67
1.06	1.06	1.61	1.54	1.70	1.11	1.84	1.09	1.17	1.52	0.00	0.24	0.79	0.20	0.63	1.05	0.75	0.24
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11	12	12
1.88	2.71	3.50	3.12	2.15	1.98	2.65	1.92	2.92	2.86	1.00	1.10	3.61	1.84	3.75	3.46	1.96	1.43
0.81	0.92	2.45	1.79	1.27	1.35	1.23	1.31	2.07	1.56	0.00	0.09	0.48	0.13	0.46	0.80	0.34	0.25
52	52	52	52	52	52	51	51	51	51	52	49	51	51	53	52	53	53

-	-	-	-	-	-	-	high	high	high	-	-	-	-	-	-	-	high	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	-	-	-	-	-	high	-	high	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-

-	-	-	-	high	-	-	high	high	high	-	high	-	-	-	-	high	high
-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-

coolness does not depend on being good at PE/Sport.
 boys do not have to be good at sport.
 popularity is not dependant upon sporting ability.
 men are not always stronger than women.
 boys and girls have the same ability in PE/Sport.
 there are adequate PE/sport choices available to students.
 it should be the students responsibility to choose the sports they want.
 teachers are equally concerned about boys and girls PE/sport programs.
 boys should do less PE/sport.
 PE/sport should be electives in schools.
 it is the choice of the students to do PE/sport.
 teacher always think about student needs when planning the curriculum.
 boys don't need contact sports.
 boys don't enjoy PE/sport.
 the teacher is the main reason for disliking PE/sport.
 students should be made to change their clothes for PE/sport.
 individual sports are more challenging.
 school PE/sport is more appealing to boys than community based sports.
 teachers should not participate with the students.
 all boys should play PE/sport together regardless of their ability.

Year 8

%1	12	12	0	35	18	76	0	6	47	47	6	29	29	47	12	24	53	35	59	29
%2	41	29	24	12	18	18	6	0	24	24	18	12	35	18	12	12	12	18	12	12
%3	18	29	35	12	24	6	18	47	29	6	29	18	18	24	47	12	18	35	18	6
%4	24	0	12	18	18	0	18	29	0	6	12	35	6	12	12	29	12	12	0	24
%5	6	29	29	24	24	0	59	18	0	18	35	6	12	0	18	24	6	0	12	29

Year 9

%1	0	29	29	41	35	59	12	35	29	13	7	47	27	27	7	50	64	43	47	53
%2	0	6	6	18	18	18	6	6	6	27	7	7	33	20	7	0	7	7	12	0
%3	35	18	12	6	6	12	0	18	47	20	27	20	20	27	27	7	14	29	12	12
%4	12	12	18	18	12	6	0	6	0	7	7	7	7	13	33	14	0	0	6	6
%5	53	35	35	18	29	6	82	35	18	33	53	20	13	13	27	29	14	21	24	29

Year 10

%1	27	7	13	20	13	73	0	7	20	47	7	13	13	40	7	7	40	40	13	27
%2	13	47	20	53	47	20	33	0	33	13	7	20	47	33	27	13	13	20	40	27
%3	27	20	53	13	33	7	7	60	33	7	53	40	27	27	47	7	20	20	20	13
%4	13	7	7	7	0	0	7	0	7	13	13	13	7	0	7	27	13	13	13	0
%5	20	20	7	7	7	0	53	33	7	20	20	13	7	0	13	47	13	7	13	33

All

%1	12	16	14	32	22	68	4	16	32	35	6	29	23	38	8	26	51	38	40	36
%2	18	26	16	26	26	18	14	2	20	21	10	13	38	23	15	11	13	15	22	12
%3	26	22	34	10	22	10	8	40	38	10	35	27	23	27	42	9	17	30	16	10
%4	18	6	12	16	10	2	8	14	2	10	13	19	6	8	17	23	9	9	6	12
%5	26	30	24	16	20	2	66	28	8	23	35	13	10	4	19	32	11	9	16	30

Mean: 8	2.71	3.06	3.47	2.82	3.12	1.29	4.29	3.53	1.82	2.24	3.53	2.76	2.35	2.00	3.12	3.18	2.06	2.24	1.94	3.12
variance	1.35	2.06	1.39	2.78	2.11	0.35	0.97	1.01	0.78	2.44	1.76	1.94	1.74	1.25	1.49	2.40	1.81	1.19	1.93	2.86
n	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Mean: 9	4.18	3.18	3.24	2.53	2.82	1.82	4.35	3.00	2.71	3.20	3.93	2.47	2.47	2.67	3.67	2.71	1.93	2.50	2.47	2.59
variance	0.90	2.90	2.94	2.64	3.03	1.53	2.12	3.13	1.97	2.31	1.78	2.70	1.84	1.95	1.38	3.45	2.23	2.58	2.89	3.38
n	17	17	17	17	17	17	17	17	17	15	15	15	15	15	15	14	14	14	17	17
Mean: 10	2.94	3.00	2.75	2.38	2.44	1.44	3.88	3.56	2.50	2.56	3.38	2.94	2.50	1.94	2.94	3.81	2.44	2.31	2.69	2.94
variance	2.20	1.87	1.00	1.32	0.93	0.53	1.98	1.33	1.20	2.80	1.18	1.40	1.07	0.73	1.13	1.90	2.13	1.70	1.56	2.73
n	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Mean	3.28	3.08	3.16	2.58	2.80	1.52	4.18	3.36	2.34	2.65	3.60	2.73	2.44	2.19	3.23	3.26	2.15	2.34	2.36	2.88
variance	1.84	2.20	1.81	2.21	2.04	0.83	1.66	1.83	1.41	2.57	1.56	1.95	1.49	1.35	1.37	2.63	2.00	1.71	2.15	2.92
n	50	50	50	50	50	50	50	50	50	48	48	48	48	48	48	47	47	47	50	50

Year 9 v Year 8

95%	high	-	-	-	-	-	-	-	high	high	-	-	-	-	-	-	-	-	-	-
99%	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	low	-	-	-	-	-	-	-	-	-	-	-	-	low	low	high	-	-	-	-
99%	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 8

95%	-	-	low	-	-	-	-	-	high	-	-	-	-	-	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

21	older PE teachers are better because they have more experience.
22	PE teachers do not provide enough discipline.
23	PE/sport should have mixed classes.
24	PE teachers don't care about students sport outside school.
25	school PE/sport only provides opportunities to try traditional sports.
26	boys enjoy the traditional sports the most.
27	school PE/sport has not motivated me to join community based sports.
28	PE/sport do not affect my health and fitness in any way.
29	PE could do more to teach the negative aspects of smoking and alcohol.
30	PE teachers are not good role models of health and fitness.
31	I do not play PE/sport.
32	my school PE/sport is boys only
33	I never try to get out of doing PE/sport
34	school PE/sport is not better than community sport
35	I never smoke cigarettes
36	I never drink alcohol
37	I never try to eat healthy food
38	I do not care about the food I eat

29	6	47	18	29	47	24	47	29	18	100	0	0	12	0	6	35	82
18	24	6	24	35	12	6	35	24	35	0	100	0	88	6	0	53	18
41	59	18	29	24	18	41	0	18	29	0	0	18	0	6	18	12	0
6	6	12	12	0	12	6	12	6	12	0	0	82	0	88	76	0	0
6	6	18	18	12	12	18	12	18	12	0	0	0	0	0	0	0	0

53	59	35	18	59	47	13	56	38	31	82	0	18	7	24	18	12	82
0	18	12	6	12	12	13	25	13	13	18	100	6	93	0	12	59	18
24	18	24	35	18	41	50	6	38	31	0	0	12	0	0	24	12	0
0	0	6	6	0	0	13	0	6	13	0	0	65	0	76	47	18	0
24	6	24	35	12	0	13	13	6	13	0	0	0	0	0	0	0	0

20	7	40	13	67	40	33	53	20	27	86	0	0	21	7	7	29	71
13	7	0	13	13	27	13	20	20	27	14	100	0	79	0	14	43	29
60	73	47	40	13	13	33	20	20	33	0	0	29	0	0	29	29	0
0	7	7	20	7	20	13	0	13	7	0	0	71	0	93	50	0	0
7	7	7	13	0	0	7	7	27	7	0	0	0	0	0	0	0	0

34	24	40	16	50	44	22	51	29	24	90	2	6	15	10	10	24	80
10	16	6	14	22	16	10	29	18	27	10	98	2	85	2	8	53	20
42	50	30	36	18	26	43	8	27	31	0	0	18	0	2	22	16	0
2	4	8	12	2	10	12	2	10	8	0	0	73	0	86	59	6	0
12	6	16	22	8	4	12	10	16	10	0	0	0	0	0	0	0	0

2.41	2.82	2.47	2.88	2.29	2.29	2.94	2.00	2.65	2.59	1.00	2.00	3.82	1.88	3.82	3.65	1.76	1.18
1.38	0.78	2.64	1.86	1.60	2.22	1.93	1.88	2.24	1.51	0.00	0.00	0.15	0.11	0.28	0.62	0.44	0.15
17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
2.41	1.76	2.71	3.35	1.94	1.94	3.00	1.88	2.31	2.63	1.18	2.00	3.24	1.93	3.29	3.00	2.35	1.18
2.88	1.32	2.60	2.24	1.93	0.93	1.33	1.85	1.56	1.98	0.15	0.00	1.44	0.07	1.72	1.38	0.87	0.15
17	17	17	17	17	17	16	16	16	16	17	17	17	15	17	17	17	17
2.63	3.00	2.44	3.06	1.63	2.19	2.50	1.88	3.06	2.38	1.13	1.93	3.73	1.73	3.80	3.27	2.00	1.27
1.05	0.67	1.60	1.40	0.92	1.36	1.60	1.32	2.20	1.32	0.12	0.07	0.21	0.21	0.60	0.92	0.57	0.21
16	16	16	16	16	16	16	16	16	16	15	15	15	15	15	15	15	15
2.48	2.52	2.54	3.10	1.96	2.14	2.82	1.92	2.67	2.53	1.10	1.98	3.59	1.85	3.63	3.31	2.04	1.20
1.72	1.19	2.21	1.81	1.51	1.47	1.61	1.62	2.02	1.55	0.09	0.02	0.66	0.13	0.90	1.01	0.66	0.17
50	50	50	50	50	50	49	49	49	49	49	49	49	47	49	49	49	49

-	low	-	-	-	-	-	-	-	-	high	-	low	-	-	low	high	-
-	low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	low	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
coolness does not depend on being good at PE/Sport.	boys do not have to be good at sport.	popularity is not dependant upon sporting ability.	men are not always stronger than women.	boys and girls have the same ability in PE/Sport.	there are adequate PE/sport choices available to students.	it should be the students responsibility to choose the sports they want.	teachers are equally concerned about boys and girls PE/sport programs.	boys should do less PE/sport.	PE/sport should be electives in schools.	it is the choice of the students to do PE/sport.	teacher always think about student needs when planning the curriculum.	boys don't need contact sports.	boys don't enjoy PE/sport.	the teacher is the main reason for disliking PE/sport.	students should be made to change their clothes for PE/sport.	individual sports are more challenging.	school PE/sport is more appealing to boys than community based sports.	teachers should not participate with the students.	all boys should play PE/sport together regardless of their ability.

Year 8

%1	18	25	9	27	5	71	14	9	32	57	19	14	48	57	10	19	38	38	36	32
%2	14	10	41	36	32	5	5	5	23	14	5	38	14	10	5	0	24	10	9	27
%3	32	20	36	9	32	10	27	50	27	14	19	24	19	24	38	24	29	38	27	14
%4	18	15	14	5	14	10	5	5	0	5	10	10	14	5	14	14	5	10	5	0
%5	18	30	0	23	18	5	50	32	18	10	48	14	5	5	33	43	5	5	23	27

Year 9

%1	0	14	7	36	7	71	7	0	29	50	36	21	50	57	0	21	71	29	7	14
%2	14	43	21	29	43	29	0	43	43	14	14	36	7	14	14	21	0	29	7	36
%3	57	21	64	21	36	0	21	43	29	0	7	21	21	21	36	21	21	29	36	21
%4	14	7	0	0	0	0	0	0	0	7	21	7	14	7	21	21	7	7	21	7
%5	14	14	7	14	14	0	71	14	0	29	21	14	7	0	29	14	0	7	29	21

Year 10

%1	27	9	18	55	60	64	9	0	0	18	0	9	36	27	0	36	36	45	40	18
%2	27	18	9	18	0	9	0	18	27	0	0	18	18	36	27	9	9	27	30	27
%3	9	27	27	9	30	18	0	27	73	27	27	36	36	27	55	9	36	9	30	18
%4	0	27	36	9	0	0	36	9	0	0	18	9	9	9	9	0	0	9	0	9
%5	36	18	9	9	10	9	55	45	0	55	73	18	0	0	9	45	18	9	0	27

All

%1	15	18	11	36	17	70	11	4	23	46	20	15	46	50	4	24	48	37	28	23
%2	17	22	28	30	28	13	2	19	30	11	7	33	13	17	13	9	13	20	13	30
%3	34	22	43	13	33	9	19	43	38	13	17	26	24	24	41	20	28	28	30	17
%4	13	16	15	4	7	4	11	4	0	4	11	11	13	7	15	13	4	9	9	4
%5	21	22	4	17	15	4	57	30	9	26	46	15	4	2	26	35	7	7	20	26

Mean: 8	3.05	3.15	2.55	2.59	3.09	1.71	3.73	3.45	2.50	1.95	3.62	2.71	2.14	1.90	3.57	3.62	2.14	2.33	2.68	2.64
variance	1.85	2.56	0.74	2.35	1.42	1.61	2.21	1.59	2.07	1.85	2.55	1.61	1.73	1.49	1.66	2.35	1.33	1.53	2.51	2.62
n	22	20	22	22	22	21	22	22	22	21	21	21	21	21	21	21	21	21	22	22
Mean: 9	3.29	2.64	2.79	2.29	2.71	1.29	4.29	2.86	2.00	2.50	2.79	2.57	2.21	1.79	3.64	2.86	1.64	2.36	3.57	2.86
variance	0.84	1.63	0.80	1.91	1.30	0.22	1.60	1.05	0.62	3.35	2.80	1.80	2.03	1.10	1.17	1.98	1.17	1.48	1.49	1.98
n	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Mean: 10	2.91	3.27	3.09	2.00	2.00	1.82	4.27	3.82	2.73	3.73	4.45	3.18	2.18	2.18	3.00	3.09	2.55	2.09	2.82	3.00
variance	3.09	1.62	1.69	2.00	2.00	1.76	1.42	1.56	0.22	2.62	0.87	1.56	1.16	0.96	0.80	3.69	2.27	1.89	9.96	2.40
n	11	11	11	11	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean	3.09	3.02	2.74	2.36	2.74	1.61	4.02	3.36	2.40	2.54	3.57	2.78	2.17	1.93	3.46	3.26	2.09	2.28	2.98	2.79
variance	1.78	2.02	0.98	2.11	1.62	1.22	1.85	1.50	1.25	2.88	2.52	1.64	1.61	1.22	1.32	2.55	1.55	1.54	3.89	2.30
n	47	45	47	47	46	46	47	47	47	46	46	46	46	46	46	46	46	46	47	47

Year 9 v Year 8

95%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	high	-
99%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 9

95%	-	-	-	-	-	-	-	high	high	high	high	-	-	-	-	-	high	-	-	-
99%	-	-	-	-	-	-	-	high	-	high	-	-	-	-	-	-	-	-	-	-

Year 10 v Year 8

95%	-	-	-	-	low	-	-	-	-	high	-	-	-	-	-	-	-	-	-	-
99%	-	-	-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-	-	-

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
older PE teachers are better because they have more experience.	PE teachers do not provide enough discipline.	PE/sport should have mixed classes.	PE teachers don't care about students sport outside school.	school PE/sport only provides opportunities to try traditional sports.	boys enjoy the traditional sports the most.	school PE/sport has not motivated me to join community based sports.	PE/sport do not affect my health and fitness in any way.	PE could do more to teach the negative aspects of smoking and alcohol.	PE teachers are not good role models of health and fitness.	I do not play PE/sport.	my school PE/sport is boys only	I never try to get out of doing PE/sport	school PE/sport is not better than community sport	I never smoke cigarettes	I never drink alcohol	I never try to eat healthy food	I do not care about the food I eat

55	24	14	27	41	41	23	59	33	23	100	26	5	15	5	14	14	71
5	5	18	27	14	23	18	23	10	18	0	74	5	85	0	0	67	29
18	57	27	27	18	23	41	14	38	27	0	0	25	0	5	10	10	0
14	5	0	14	18	5	9	5	5	5	0	0	65	0	90	76	10	0
9	10	41	5	9	9	9	0	14	27	0	0	0	0	0	0	0	0

36	36	29	7	71	50	7	21	14	7	100	7	0	31	0	0	0	36
43	21	14	29	21	14	36	14	29	29	0	93	0	69	0	14	57	64
21	43	21	14	7	36	21	29	7	21	0	0	36	0	29	36	14	0
0	0	21	14	0	0	14	14	29	0	0	0	64	0	71	50	29	0
0	0	14	36	0	0	21	21	21	43	0	0	0	0	0	0	0	0

45	18	9	27	27	36	9	36	9	27	100	50	18	18	9	0	9	82
9	18	0	18	27	18	27	9	18	27	0	50	0	82	9	9	55	18
45	36	18	9	36	36	27	18	36	36	0	0	45	0	0	36	36	0
0	18	0	0	0	9	0	18	9	0	0	0	36	0	82	55	0	0
0	9	73	45	9	0	36	18	27	9	0	0	0	0	0	0	0	0

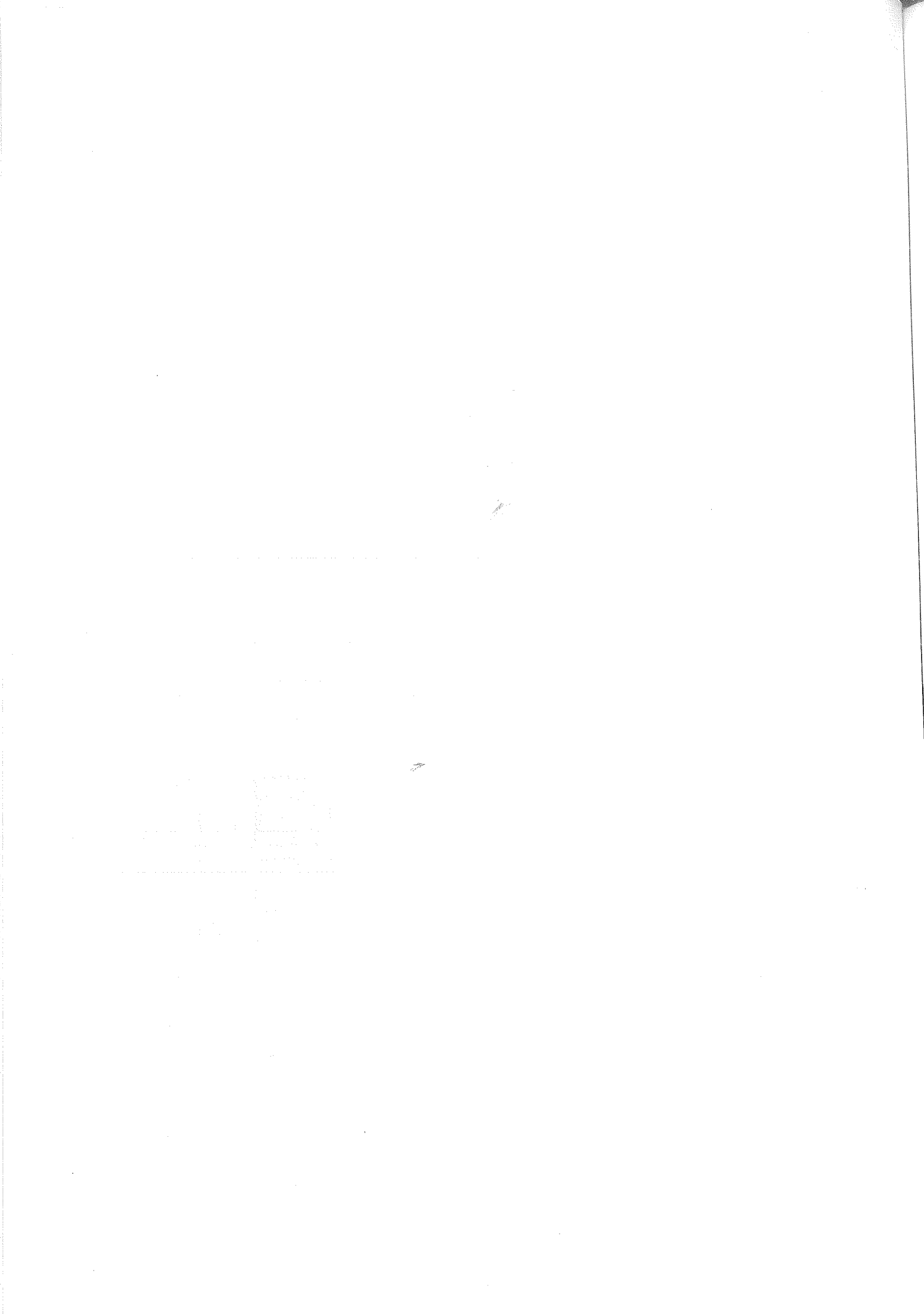
47	26	17	21	47	43	15	43	22	19	100	24	7	20	4	7	9	63
17	13	13	26	19	19	26	17	17	23	0	76	2	80	2	7	61	37
26	48	23	19	19	30	32	19	28	28	0	0	33	0	11	24	17	0
6	7	6	11	9	4	9	11	13	2	0	0	58	0	83	63	13	0
4	7	40	23	6	4	19	11	20	28	0	0	0	0	0	0	0	0

2.18	2.71	3.36	2.41	2.41	2.18	2.64	1.64	2.57	2.95	1.00	1.74	3.50	1.85	3.81	3.48	2.14	1.29
2.16	1.41	2.34	1.40	2.06	1.68	1.48	0.81	1.96	2.33	0.00	0.20	0.68	0.13	0.46	1.16	0.63	0.21
2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	19	19	20	20	21	21	21	21
1.86	2.07	2.79	3.43	1.36	1.86	3.07	3.00	3.14	3.43	1.00	1.93	3.64	1.69	3.71	3.36	2.71	1.64
0.59	0.84	2.18	2.11	0.40	0.90	1.76	2.15	2.13	2.26	0.00	0.07	0.25	0.23	0.22	0.55	0.84	0.25
14	14	14	14	14	14	14	14	14	14	14	14	14	13	14	14	14	14
2.00	2.82	4.27	3.18	2.36	2.18	3.27	2.73	3.27	2.36	1.00	1.50	3.00	1.82	3.55	3.45	2.27	1.18
1.00	1.56	1.82	3.36	1.45	1.16	2.22	2.62	1.82	1.45	0.00	0.29	1.20	0.16	1.07	0.47	0.42	0.16
11	11	11	11	11	11	11	11	11	11	11	8	11	11	11	11	11	11
2.04	2.54	3.40	2.89	2.09	2.09	2.91	2.30	2.91	2.96	1.00	1.76	3.42	1.80	3.72	3.43	2.35	1.37
1.39	1.32	2.38	2.18	1.60	1.30	1.73	1.95	1.99	2.17	0.00	0.19	0.70	0.17	0.52	0.78	0.68	0.24
47	46	47	47	47	47	47	47	46	47	44	41	45	44	46	46	46	46

-	low	-	high	low	-	-	high	-	-	-	-	-	-	-	-	high	high
-	-	-	-	low	-	-	high	-	-	-	-	-	-	-	-	-	-

-	high	high	-	high	-	-	-	-	low	-	low	low	-	-	-	-	low
-	-	high	-	high	-	-	-	-	-	-	low	-	-	-	-	-	-

-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	high	-	-	-	-	-	-	-	-	-	-



APPENDIX 3

Questionnaire

Questionnaire

Masculinity

- | | | | |
|----|---|------------------|--|
| 1. | It is cool to be good PE/Sport at school | <u>1 2 3 4 5</u> | Coolness does not depend on being good at PE/Sport |
| 2. | Boys are meant to be good at sport | <u>1 2 3 4 5</u> | Boys do not have to be good at sport |
| 3. | The boys who are good at sport are most popular | <u>1 2 3 4 5</u> | Popularity is not dependent on sporting ability |
| 4. | Men are stronger than women | <u>1 2 3 4 5</u> | Men are not always stronger than women |
| 5. | Boys are better at PE/Sport than girls | <u>1 2 3 4 5</u> | Boy and girls have the same ability in PE/Sport |

Planning

- | | | | |
|----|--|------------------|--|
| 6. | There should be more PE/Sport choices available to students | <u>1 2 3 4 5</u> | There are adequate PE/Sport choices available to students |
| 7. | It is the teacher's responsibility to choose the sports | <u>1 2 3 4 5</u> | It should be the students responsibility to choose the sports they want |
| 8. | PE teachers are more concerned about girls PE/Sport programs | <u>1 2 3 4 5</u> | PE teachers are equally concerned about boys and girls PE/Sport programs |
| 9. | Boys should do more PE/Sport | <u>1 2 3 4 5</u> | Boys should do less PE/Sport |

- | | | | |
|-----|---|------------------|---|
| 10. | PE/Sport should be compulsory in schools | <u>1 2 3 4 5</u> | PE/Sport should be electives in schools |
| 11. | It is up to the teacher to make the students do PE/Sport | <u>1 2 3 4 5</u> | It is the choice of the students to do PE/Sport |
| 12. | When planning the PE curriculum teachers don't think about students | <u>1 2 3 4 5</u> | Teacher always think about student needs when planning the curriculum |
| 13. | There should be more contact sports for boys | <u>1 2 3 4 5</u> | Boys don't need contact sports |

Participation/Non-Participation

- | | | | |
|-----|---|------------------|---|
| 14. | Boys enjoy doing PE/Sport | <u>1 2 3 4 5</u> | Boys don't enjoy PE/Sport |
| 15. | The teacher is the main reason for liking PE/Sport | <u>1 2 3 4 5</u> | The teacher is the main reason for disliking PE/Sport |
| 16. | Students should not have to change their clothes for PE/Sport | <u>1 2 3 4 5</u> | Students should be made to change their clothes for PE/Sport |
| 17. | Team games are better than individual sports | <u>1 2 3 4 5</u> | Individual sports are more challenging |
| 18. | Boys enjoy community sport more than school PE/Sport | <u>1 2 3 4 5</u> | School PE/Sport is more appealing to boys than community based sports |

Recommendations

- | | | | |
|-----|---|------------------|--|
| 19. | Teachers should join in games with students where possible | <u>1 2 3 4 5</u> | Teachers should not participate with the students |
| 20. | Boys should be graded by their level of ability in PE/Sport | <u>1 2 3 4 5</u> | All boys should play PE/Sport together regardless of their ability |
| 21. | Younger PE teachers are better because they are more enthusiastic | <u>1 2 3 4 5</u> | Older PE teachers are better because they have more experience |
| 22. | PE teachers are too authoritative | <u>1 2 3 4 5</u> | PE teachers do not provide enough discipline |
| 23. | PE/Sport should be all boy and all girl classes | <u>1 2 3 4 5</u> | PE/Sport should have mixed classes |

Contribution of school PE/Sport to community sport

- | | | | |
|-----|---|------------------|---|
| 24. | PE teachers help students find outside sporting clubs | <u>1 2 3 4 5</u> | PE teachers don't care about students' sport outside school |
| 25. | School PE/Sport provides opportunities to try new sports | <u>1 2 3 4 5</u> | School PE/Sport only provides opportunities to try traditional sports |
| 26. | Boys are becoming tired of the same sports and want to try different ones | <u>1 2 3 4 5</u> | Boys enjoy the traditional sports the most |

27. Boys join community sports clubs because of sports they tried in school PE/Sport 1 2 3 4 5 School PE/Sport has not motivated me to join a community based sports club

Health

28. PE/Sport influence my health and fitness 1 2 3 4 5 PE/Sport do not affect my health and fitness in any way
29. School PE/Sport has taught me about the negative aspects of cigarettes and alcohol 1 2 3 4 5 School PE/Sport could do more to teach me about the negative aspects of smoking and alcohol.
30. PE teachers are good role models of health and fitness 1 2 3 4 5 PE teachers are not good role models of health and fitness

Biography

School.....

Yearlevel.....

I play PE/Sport YES NO

My school PE/Sport is: mixed (boys and girls) boys only

I try to get out of doing PE/Sport
Always
A lot
Sometimes
Never

School PE/Sport is better than community sport YES NO

I smoke cigarettes
once a day
once a week
once a month
never

I drink alcohol
once a day
once a week
once a month
never

I try to eat healthy food
all the time
sometimes
rarely
never

I care about the food I eat YES NO

Circle the sports you do **in school** and the sports you do **out of school**

School PE/Sports

Football
Cricket
Basketball
Tennis
Soccer
Lacrosse
Swimming
Baseball
Softball
Athletics
Hockey
Gymnastics
Rugby

List any others

Sports out of school

Football
Cricket
Basketball
Tennis
Soccer
Lacrosse
Swimming
Baseball
Softball
Athletics
Hockey
Gymnastics
Rugby

List any others

Circle the sports you would **like** to do **in school PE/Sport**

Surfing
Sailing
Windsurfing
Hiking
Orienteering
Canoeing
Kayaking
List any others

Boxing
Wrestling
Marshal Arts
Weight lifting
Surf lifesaving
Cycling
Triathlon