

**SPORT SPECIALISATION
IN A SINGAPORE SECONDARY SCHOOL:
A CASE FOR LEGITIMISATION**

BY


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A Doctoral Thesis

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ABSTRACT

This evaluation study of a curriculum innovation in sport specialisation was conducted in Singapore from 1994-1997. The longitudinal design provided scope for a comprehensive analysis of the school, the staff, the pupils and the implementation of the sports programme, known as the Sports Class. The use of qualitative as well as quantitative paradigms enabled data to be triangulated within the inquiry, which added security to the interpretation of the subjective data. Surveys, interviews and non-participant observations provided the qualitative data whilst established, validated inventories from the field produced the scientific data. A control/experimental group design was selected as a means of removing any maturational data that might have interfered with the results. The study examined the implementation of the programme as an innovation from its inception and provided formative feedback to the school from its findings through annual reports.

As background research, the study considered the historical development of sport in Singapore from its colonial past through to its current status as a 'developing' nation to better understand the dominant values for sport within the culture. Elitism, gender and a pre-occupation with fitness were notions that initially directed the investigation. The study also examined the level of intrinsic motivation and assessed the task and ego profiles of the players in the programme. As well as assessing the programme outcomes against the original goals prescribed by the Principal, the study sought out unanticipated effects that made an impact on the school. The study addressed the influence this elitest initiative had on physical education from an egalitarian perspective. The study found that the programme had been successful in improving sporting as well as academic success, two of the original goals, but found that modifications made to the programme design impaired the final structure that created concerns about the future success of the initiative.

Key Words

Sport; specialisation; elitism; physical education; curriculum; culture; Singapore; secondary school.

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Producing and developing this document has become a complete lifestyle (eating, breathing and sleeping), particularly as a part-time initiative. Therefore, taking on a project of this magnitude required considerable self-questioning to determine whether the necessary sacrifices could be made. In the course of the past 6 years many such sacrifices have been donated to this cause not only by myself but also by my colleagues but most especially, my wife, who began our married life competing with the demands of this study.

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PRESENTATIONS AND PUBLICATIONS

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McNeill, M C (1995) 'A Study of Sports Excellence and the Impact of SPEX2000 on School Sport and Physical Education', *School Principals' Conference*, Singapore.

McNeill, M C (1997) 'The Effect of a School-Initiated Curriculum Sport Model on Aerobic Fitness Levels', *Proceedings: AIESEP Singapore 1997*, pp.131-136.

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GLOSSARY OF TERMS AND ACRONYMS

Aerobic Fitness was to be determined by the pupil's score in the Multistage Fitness Test and not by the scores VO_2 value.

Physical education is understood to represent an egalitarian curriculum approach for teaching less formalised physical activity.

Sport is understood to represent competitive and elite institutionalised sport.

Straits Times: The Straits Times is the major national daily newspaper in the Republic of Singapore.

BMI: Body Mass Index

CATPA: Children's Attitude To Physical Activity

CHS: Cathedral High School

DES: Department of Education and Science of England and Wales.

ECA: Extra Curricular Activity

ECAC: Extra Curricular Activities Centre

HOD: Head of Department

ITT: Initial Teacher Training

JC: Junior College

MOE: Ministry of Education

NAPFA: National Assessment of Physical Fitness Award

NCF: National Coaching Foundation

NSAs: National Sporting Associations

POS: Purpose of Sport Inventory

PSLE: Primary School Leaving Examination

SAAA: Singapore Amateur Athletics Association

SAP School: Special Assistance Plan School

SBA: Singapore Badminton Association

SCP: Sports Class Programme

SMS: Sport Motivation Scale

SPE: School of Physical Education

SPEX2000: Sports Excellence 2000

SSC: Singapore Sports Council

STTA: Singapore Table Tennis Association

TEOSQ: Task and Ego Orientation in Sport Questionnaire

Chapter 1

Introduction

1.1 The Sports Class Programme

In 1994 a special sports programme was implemented in a co-educational secondary school in Singapore to support selected students in achieving sporting excellence. The innovation at Cathedral High School¹ (CHS), named the 'Sports Class', was the brainchild of its principal, Mr Tan² and was created without any special funding or official assistance. The Sports Class Programme (SCP) at CHS focussed on three sports: badminton, basketball and table tennis for both boys and girls in the four years of their secondary education. In the context of Singapore, this represented a unique effort to promote sporting excellence whilst still emphasising the pursuit of academic attainment. As a research site, CHS was well suited to this project as it was a selective, co-educational secondary school where high academic attainment was expected and it also had a longstanding tradition of sporting success.

As sports students would find it astronomically difficult to juggle academic work and training together, the students were grouped into 2 classes at each level. It was, therefore, easier for the school to conduct make-up and supplementary lessons to assist them in coping with their studies and keeping up with their peers. Furthermore a special mid-year examination schedule was also planned for the sports students so as to give them more time to prepare for their papers. Special arrangements made in their timetables allowed a more flexible time management of these students' training programmes and their normal lessons in class....Aside from the two morning training-cum-PE sessions each week, there were two other regular training sessions in the afternoon. To upgrade and polish their skills, professional coaches drilled these sports players.

(School Year Book, 1995)

The SCP was designed specifically for school team players provided that they could maintain acceptable test results in academic subjects. Academic support, in the form of additional tuition from some of the school's best teachers, was time-tabled to support the

¹ This is not the school's true name.

² As in ¹ this is not the Principal's true name.

sports players in their studies, however those pupils who were unable to maintain their academic grades would be dropped from the programme. There were two SCP classes in every year except the final year³ in the three selected sports that had brought the school fame and success over many years.

The study focuses on a single cohort of pupils who were chosen as the pioneers of this new programme through selection trials. The initial SCP design gave the players six early morning training periods within the normal curriculum. The pupils that were selected had an interest and competence in one of the three sports and were subjected to an intense training regimen with competent, qualified coaches, whilst steps were taken to protect, monitor and control their academic status.

In Singapore, where there is a perception that succeeding in sport and academic studies were mutually exclusive (Ng, 1996), such a school initiative was exceptional, as it represented a significant shift in emphasis in favour of sporting achievement. Education was revered as the "sine qua non" for advancement (Aplin, McNeill & Saunders, 1997:2) and academic success had been seen as the major, if not the only, priority for students. This priority has been further emphasised through the policy of ranking schools⁴ relative to their academic attainment thus, as a consequence, achievement in sport has always been subsumed by academic success (Sia, 1994). Owing to the pressure that ranking places upon principals and teachers, schools have tended to focus heavily on academic attainment, which obviously works to the detriment of sport, to such an extent that "competitive sport and academic study have become uneasy companions" (Aplin et al., 1997:2).

³ In Singapore there are four years of secondary education.

⁴ The system of ranking is used by the Ministry of Education as a means of monitoring schools and is also utilised by parents as a criterion for selecting their child's secondary school.

1.2 Research Problem

The study set out to illuminate the extent to which a sport programme, that was designed to produce both academic and sporting success, could flourish in a Singapore secondary school.

The SCP began with the intention of producing, for boys as well as girls, a reservoir of potential national talent. As the programme was the first of its kind to protect and develop the status of sport within the school curriculum, it is important to examine the process of implementation by unravelling the complexities of what is taking place. Although the outcomes have to be measured against stated objectives in order to explore how effective the model has been, these programme goals will not be allowed to become a limitation to the research process. As there might be unexpected outcomes in the evaluation, the research process will determine what needs to be examined as the study unfolds. Inductive logic will be employed through regular and annual reflections that will be reported to the Principal.

This study attempts to gain an insight into the difficulties of developing an elite sport programme in a curricular setting within the Singapore educational system. One of the major constraints for the Principal in implementing this programme was that there was no additional funding or staffing available for the project. Adding an extra programme to an already full curriculum meant that some imbalance of resources, and thus extra tension, would be created. Problems involving personnel, their expertise, use of facilities and equipment deployment soon emerged. Some of these problems were offset by the fact that the Principal was able to pay for external coaching expertise from the National Sports Associations (NSAs) on an ad hoc, needs basis.

A fundamental function of this project is thus to provide a database and analysis that accurately and comprehensively reflect the status of school sport in this unique and

exciting initiative. As no two educational settings are identical, they require different methodological approaches to illuminate their stories. Thus the study examines the process and development of a curriculum innovation in a South East Asian setting, which can precipitate a better understanding of the diverse philosophy of practice. In spite of vigorous attempts to the contrary, the rigours and cultural demands of the Singapore educational system have continuously marginalised the status of school sport. It is therefore imperative that this study acknowledges, informs and refines the SCP initiative to preserve and improve the status and integrity of school sport within the discipline of Physical Education and at the same time contributes to opportunities for sporting advancement, through appropriate and relevant research. The study will interpret a significant part of the programme's contribution from the impact it makes on the opinions of its major participants, the sports players, the coaching staff and the Principal. In light of the culture in Singapore, the study intends to assess the impact of an elite-sport model on academic attainment and at the same time it attempts to highlight the success that the model brings to the school's sporting achievements. Finally, the study will interpret the level of the model's contribution to junior sporting excellence with a view to evaluating the potential of the initiative as a legitimate flagship for the advancement of sporting achievement in a Singapore school programme.

1.3 Purpose of the Study

The purpose of this four-year longitudinal study is to examine the implementation of this curriculum initiative and to evaluate the level of success and quality of its outcomes. To achieve this goal the research examines four key areas:

1. the impact the programme has on its clients;
2. the effect the innovation has on the curriculum and the school;
3. the role of sport within the physical education programme; and
4. the function of the various tiers of administration.

The results of the investigation will enable the Principal to

- a. more completely recognise the impact of the programme on the school;
- b. improve the structure and calibre of the model if necessary; and
- c. produce justification, through the programme's accomplishments, for the potential legitimisation of the model as a 'gifted'⁵ programme.

Data analyses will attempt to illuminate any tensions that exist as a consequence of implementation and will be used to highlight positive as well as negative features of the programme.

1.4 Significance of the Study

The merits of the study will be to acknowledge the extent to which sport and schoolwork can co-exist in a Singapore educational setting. The research will attempt to show that this can be of value to the nation by examining the levels of sporting achievement in a demanding academic environment, as well as investigating the gains to the players from participation in the programme. The timing of the SCP was significant as sport was further losing status to academics in the school curriculum at a time when the government was stressing the importance of elite sport to the future identity of the nation. This study fills a gap, as there has been a paucity of field research conducted on physical education and sport in Singapore schools. None of the previous research has embraced an interpretation of a curriculum innovation over an extended period and it is important to prove that the rationale for the SCP can be successful and sustained and that academic attainment will not be impaired by intensive involvement in sport. As the SCP is unique in its cultural and geographical location, the research design thus evolves inductively as the project proceeds. This four-year project therefore analyses, from its inception, the implementation of a sport model within the subject discipline of Physical Education, evaluating the impact of the programme on both the students and the staff. This

⁵ In Singapore MOE has elite programmes for talented children in Art, Languages and Music and these are known as 'gifted' programmes.

longitudinal examination will provide a greater understanding of the programme's dynamics, as well as producing an 'archive' of descriptive material, which will facilitate further re-examination for curricular reform and sporting achievement (Cohen and Manion, 1985:146). A successful profile of the programme's achievements will strengthen its case for legitimisation as another 'gifted' programme.

In the context of Singapore, the SCP is unique for two reasons: that it centres on sport and that it emanates directly from within a single school. The educational system, although very successful in producing examination success, is hierarchically controlled which makes the notion of a curriculum innovation, emerging from a school, exceptional. Sport-specialisation within a Singapore school timetable, in a selective setting, is also particularly complex and unusual because this society has always strongly endorsed the notion of academic accreditation as a social imperative. The Singapore government has long addressed the social importance of sport as an ideology for maintaining and improving national health but has only recently recognised the full political and economic significance of elite sport, sports champions and medals to the nation (Murali, 1998). The emergence of a sport-specific school programme at CHS is therefore most apt as, after thirty years of nationhood, this developing, prosperous, young country has finally recognised the value for sport to be viewed as an integral component of future lifestyle.

The tradition of sport and extra curricular activities in an educational form is virtually universal although they usually exist beyond the regular curriculum. However, this model presents an opportunity for a school to embrace and consolidate this assumption within the curriculum with students, external coaches and facilities singularly directed at developing this specific purpose. It is unfortunate that in many Singapore schools elite sport has become the *raison d'être* of physical education, with winning being the hallmark of this ethos, essentially because sports results are now embraced in the evaluation system of Singapore's schools⁶. The process of ranking sports' results exerts

⁶ The Ministry of education operates a ranking system based on academic results, fitness and obesity levels. Although sports results, until today, are not ranked they feature regularly and prominently in the media, creating an awareness of, and a competitive milieu for, the most successful schools in various sports. This effectively bolsters the school's reputation and completes the all-round profile.

pressure on principals as well as teachers to win and as a consequence a philosophy where the ends justify the means has been created. As results can be measured, winning is thus revered, as it represents a characteristic with value, quality and status. A valuable outcome of this study, therefore, will be in acknowledging the attempt to attain sporting excellence in a demanding academic environment and in the extent to which the programme satisfactorily impacts on the values and opinions of the players.

1.5 Aims of the Study

As no previous evidence of an educational sport-model exists in Singapore, in fact few exist anywhere, the study aims at recording, closely monitoring and carefully evaluating the first major curriculum innovation emanating directly from within a school.

1.6 Process of Inquiry

Evaluation theory is well suited for this project as it best monitors and articulates the process of an innovation, allowing judgements to be made about the programme's outcomes. Equally, a curriculum investigation committed to a longitudinal analysis allows data to be illuminated that a cross-sectional or short-term inquiry would overlook. The examination of this sport model will be necessarily diverse, as it attempts to include a fusion of socio-psychological considerations, to comprehensively interpret the data. As the project unfolds, frequent observations, empirical measurements and reflections will be utilised through an "inductive-deductive" approach (Cohen and Manion, 1985:4) to produce annual reports that will facilitate the development of the programme and assist ongoing policy making decisions within the school.

The study will use a combination of descriptive, experimental and qualitative measures to add richness and depth to the analysis of the research project. In an attempt to understand and interpret the world of the sports' students more fully, the research will investigate the

influence of competitive sport on the players through questionnaires, surveys and interviews. This style of investigation should reveal the full effect of the innovation upon the players, because the psycho-social impact will be of equal significance to the future of the initiative. An objective assessment of the sports players' personal characteristics will also be made through the use of established inventories from the field of physical education and sports science, such as Harter's (1988) Self-Perception Profile for Adolescents, while the school's academic and sporting record will be reviewed from official documents over the previous decade. The role of the Principal as a key factor in the creation, implementation, development and success of the model will be viewed as a key dimension in the educational setting and regular dialogue with other closely related individuals, such as teachers and coaches, will further enlighten and direct the research. A further consideration of the study will be the extent and manner to which the model impacts on the life of the school and how this relationship flourishes or survives within the educational system of Singapore.

Chapter 2

Setting the Scene

In an attempt to further contextualise the study, it was necessary to fully understand The Republic of Singapore's development as a young nation to more clearly interpret the historical, political and educational issues as they unfolded. This chapter briefly illustrates some of the main societal characteristics underpinning the programme that can be used to describe the environment in which the study was conducted. Additionally, demographic, economic, and social features will inform the reader as to the current, as well as the future significance of the project to the nation.

2.1 The Republic of Singapore

2.1.1 Demography

Singapore is a small island-city state sandwiched between Indonesia and Malaysia in South East Asia and situated just 137 km north of the equator. The multicultural population of just over 3 million people comprises Chinese (77.4%), Malays (14.2%), Indians (7.2%) and Eurasians/Others (1.2%)⁷. As a result of Education policy the majority of citizens are bilingual, many multi-lingual, and speak a selection of local tongues (Chinese dialects, Mandarin, Malay and Tamil), but the language of administration, education, commerce and technology is English. In the multicultural social milieu that is Singapore (Inglis, 1983), children are taught about their own cultural heritage through their mother tongue whilst being educated to “develop an appreciation of racial and religious tolerance” (Tan, 1990:6) in efforts to further enhance “multi-racial harmony” (Chew, 1997: 75).

⁷ Official information provided by the Ministry of Information and the Arts, 1996.

2.1.2 Post War Development

In the space of 50 years, since the end of World War II, Singapore has developed from a country where one in ten of the working population was unemployed and almost half of the population (48%) were illiterate to a country in 1995 with the world's highest budget surplus (World's Competitiveness Yearbook⁸ 1997). At that time there were places in primary schools for 81% of children, but only places for 23% in secondary schools, malnutrition and tuberculosis were rife (Turnbull, 1989), living conditions squalid and many streets were unlit with public standpipes needed for water. Proper sanitation was a luxury enjoyed by only a few people.

Today, the story is very different. As a result of a "visionary and steely" stable yet pragmatic government, the political hegemony has produced a vibrant and resilient economy (Cameron-Jones, 1997:31). Socially the people of Singapore have seen housing transformed from kampung (jungle village) to condominium. Singapore is well known as an exceptionally clean city and has a vision for the country as a model 'green' city of the 21st Century⁹.

According to Deputy Prime Minister Tony Tan (Straits Times, 19th February, 1998), one of the significant features of the current government of Singapore¹⁰, having recognised the country's vulnerability as a small nation, was that it is not content to rest on its

⁸ In the same report Switzerland was ranked 18th and Britain 38th (Straits Times, 7th July, 1997).

⁹ The government believes that this will be achieved by aiming for "a city with high standards of public health and a quality environment, which is conducive to gracious living, with clean air, clean land, clean water and a quiet living environment" (Ministry of Information and the Arts, 1996:62). According to Prime Minister Goh Chok Tong (1997) showing concern for the environment was the hallmark of a mature and refined society. He urged Singaporeans to play their part through a range of civic programs, which included the clearing of beaches, the protection of coral and the prevention of littering. It is suggested that not only will these campaigns improve the quality of people's lives they will have a direct effect on tourism and an indirect effect on the economy by creating a healthier, cleaner country and making Singapore a nicer place to visit.

¹⁰ The People's Action Party (PAP) have been in continuous government since 1965.

laurels. Singapore is continuing to look to the future to maintain and improve its international standing well into the 21st Century.

2.1.3 Prevailing Political Ideology

As a developing country, nation building is the government's major thrust. To achieve this goal, the government is reactive to social needs and concerns and addresses these issues in a consistent and coherent manner. This philosophy can be attributed, in no small way, to the then Prime Minister Lee Kuan Yew, whose "visionary leadership" (Sharpe and Gopinathan, 1996:371) helped to mastermind the policies that underpinned the Republic's meteoric social and economic rise. A succession of rational and pragmatic policies was skilfully deployed to drive the national economy, which obviously was the fundamental component for achieving prosperity. For Singapore to create a successful economy it needed an educated, productive, flexible and well-protected workforce, all working harmoniously¹¹ in a well-defended island state.

Education is considered a vital component of 'nation building' as it provides a capacity for flexibility in response to changing commercial, industrial and technological needs (MOE, 1994). People are Singapore's only natural resource, thus social harmony and cohesion is the backbone for economic productivity (Goh, 1996:45) and this has underpinned the policy of racial integration¹², a key feature in the success of high-density accommodation¹³. This policy of social cohesion¹⁴ is also a feature of the education system where all government schools set out, from an early age, to develop an understanding of racial and religious diversity with the goal of creating a Singapore identity. Economic productivity depends substantially on a fit and healthy labour force

¹¹ Singapore was identified as vulnerable geographically, militarily, socially and commercially.

¹² Singapore learned from serious race riots in 1964 that social harmony cannot be taken for granted.

¹³ The density of 4,608 residents per sq. km gives some indication of the space available, particularly when compared with Australian density of 2 residents per sq. km.

¹⁴ The government introduced National Education into the curriculum in 1996 to develop this policy.

and participation in exercise and sport have been identified and prescribed by the government, through a succession of campaigns, as an appropriate means to this end.

2.1.4 The Economy

Although Singapore had the advantage of a key maritime location and the facility of a "deep-water port" (Cameron-Jones, 1997:31), natural resources other than people are scarce and the entre-pot economy of the island nation is very exposed to the volatility of market pressures. As one of the modern world's economic miracles (Chong, 1968), Singapore had achieved 'newly industrialised' status in a period of 25 years since becoming a republic in 1965 and has come to be known as the economic gateway to South East Asia¹⁵.

Singapore's international status has been upwardly revised to that of a "Developed Country"¹⁶ by the Organisation for Economic Co-operation and Development (Goh, 1995:20) as a consequence of its tremendously successful economy¹⁷. The readers of 'Fortune' magazine voted Singapore as the World No.1 Business Centre and the Swiss based 'World Economic Forum' ranked it as the "world's most competitive economy" related to their global competitive index in 1996 (Sidek Sanif, Senior Minister for State, 1996). The 'economic miracle', which cultivated human talents to the fullest (Goh, 1996:44) and valued the unique contributions of each and every citizen, was driven by the political and cultural ideology of 'excellence'. In 1988, then First Deputy Prime Minister and Minister for Defence Goh Chok Tong¹⁸, when addressing Parliament, talked of the government's goal of making Singapore "a city of excellence and a society of

¹⁵ The World Bank rated it, in 1994, as the 6th highest country in the world per capita Gross Domestic Product (GDP) on Purchasing Power Parity (PPP) basis (Yeo Chow Tong, Minister for Trade and Industry, 13th August, 1996).

¹⁶ Singapore is aiming to have the standing and characteristics of a first league developed country, like the USA, within the next 30 to 40 years and become the business hub of the Asia Pacific (Government, 1991).

¹⁷ Until 1994, the economy had grown at a rate of 9% per annum for almost 30 years, during which the GDP had grown 13 times and real per capita income by 7 times.

¹⁸ Goh Chok Tong became Prime Minister in 1991.

distinction. Singaporeans have the drive to upgrade themselves and are tireless in the pursuit of excellence. Let us give them the opportunities to do so" (Goh, 1988).

Singaporeans are acknowledged as having a well-established work ethic¹⁹. The workforce is encouraged constantly to be flexible and adaptable and to keep upgrading qualifications and standards to maintain Singapore's competitive edge. This concept of 'upgrading' skills has permeated all the way down to the daily-rated workers who have been encouraged by the Prime Minister to attend courses that will enhance their literacy as well as their competency with machinery and technology in order to remain employable in the next century²⁰. This continuous push for academic and vocational accreditation, upgrading and flexibility comes at a price, adding substantially to the stress levels of the workforce. In a survey of 505 randomly selected adults conducted by the Singapore Press Holdings Research and Information Department (Straits Times, 25th February, 1998) three out of four people thought that Singapore was a stressful place to live in (refer to Table 2.1). However, four out of five (80%) reported that they were coping with this stress 'quite well' and only 6% suggested that they were not coping.

Table 2.1: Major Causes of Stress in Singapore Life

Cost of living	85%
Family responsibilities	62%
Work pressure	53%
Getting/maintaining desired house	51%
Ensuring that child gets good academic results	46%
Finding the right job	39%
Getting the right car	30%

¹⁹ BERI rated the Singapore worker best in the world in 1995, 1996 and again in 1997, specifically in terms of productivity, attitude and technical skills (ST, 7.4.97).

²⁰ Daily rated workers will be allowed to enrol for upgrading courses during office hours and will be rewarded with incentive payments when they complete a course module (ST, 10th Nov. 1997).

The survey also reported that three out of five Singaporeans (63%) found work stressful with four out of five (80%) working more than 8 hours a day. More than quarter of those polled (27%) worked in excess of 10 hours a day, public servants work five and a half days per week and it should be borne in mind that family responsibilities, as a major cause of stress, include taking care of the aged, a form of filial piety that is expected in Asian families.

The results of this survey also highlighted the pressure placed on families by the education process with just under half the adults in the survey reporting stress in this area. Two in every three students over 15 years of age found life stressful and more than nine out of ten of them (93%) indicated that the stress was caused by trying to get better results in their examinations, however most of them (80%) reported that they were coping 'quite well'.

2.1.5 Social Characteristics

In Singapore, over the last decade, the growth of affluence has fuelled the notion of materialism, a trait that can be associated with traditional Chinese cultural expectations of wealth and prosperity. From the early years of independence, economy-based values were given precedence over the promotion of all other cultural practices and the achievement of continuing success implanted a 'materialistic orientation' as part of the Singaporean identity (Chua, 1995:113). Singaporeans, by their own admission²¹, aspired towards the quality goods in life²² that constitute 'the Singapore dream' (Koh, 1998). Expensive cars, country club memberships and condominium-resort living, which are amongst the most expensive in the world, are prized assets in the meaning of life for

²¹ An international poll in 1997, conducted by the National Youth Council (NYC) and the Centre for Business Research and Development (CBRD) (ST, 4.3.98) found that nine out of ten young people describe 'Singaporeans' as materialistic. More than half said that money was their main concern in life and more than three out of ten said that getting rich was their life goal. More than four in ten stated that their goal in life was "to live as I like".

²² These quality goods are referred to as the 5 C's: cash, car, condominium, credit card and country club.

many. Affluence comes at a price, however, and the high cost of living has made double incomes inevitable. With both parents working, often long hours, many children are brought up by either their grandparents or the family maid, which, as a consequence, has distanced children from their parents. As a reflection of values in the macro-meritocratic picture, personal effort was considered to be the main ingredient for success rather than luck, social status or having the right connections, which Leow (Straits Times, 4th March, 1998) described as “materialism with a goal”.

Driven by a litany for excellence and fuelled by success, Singaporeans are proud to have had for the past ten years the world’s best airport (IATA, 1997; British Business Traveller Magazine, 1997), the most profitable airline (Ministry of Information and the Arts, 1996) and the world’s busiest port (Maritime and Port Authority of Singapore, 1998). In 1996 Singapore had the largest container traffic growth in the world according to the Port of Singapore Authority but was still second to Hong Kong as the busiest. Singapore was also the first country in the world to implement Electronic Road Pricing (ERP) on the 1st April 1998, part of the government’s policy towards becoming a fully ‘intelligent island’.

The American business magazine “Fortune” (1997) reported that one secret of Singapore’s success was the undercurrent of anxiety that drove its people to improve and achieve. “The anxiety that its geographic, economic, and political positions are vulnerable is a galvanising force, in some ways an obsession, that keeps its three million people on the ball and striving to improve”. A local term ‘Kiasu’²³ described this less than reticent cultural element of Confucianism (Cameron-Jones, 1997:34). George Yeo, Minister for Information and the Arts, (1997) suggested that “our success is the result of anxiety, and the anxiety is never fully assuaged by success”.

²³ A *hokkien* word meaning ‘afraid to lose’, makes you want to be the best but at the same time makes you worried that you won’t be (Cameron-Jones, 1997).

Another feature of the social milieu in Singapore is the frequency with which the government, adopting a paternalistic function, has launched campaigns to upgrade the social and civil mentality of its people. This pragmatic leadership role has evolved to such an extent that many citizens have become dependent on the government for shaping their economic and social security and for giving direction to their lives. Economic success is only one element of a developing nation and social behaviour another. To this end, over the past ten years, the famous government campaigns to prevent chewing gum, littering, spitting and urinating in lifts indicate that the country has still some way to go to achieve the civil standards expected of a mature and developed country. However, cognisance of these social concerns is important as a means of understanding the values that some Singaporeans hold and the efforts of the government to influence and direct the social behaviour of its citizens. In a similar vein the government is cognisant about the importance of sport and physical activity for daily living and is therefore tackling the issue of sports participation in attempts to improve not only the nation's international standing but also the quality of life for its citizens.

Looking to the future Prime Minister Goh Chok Tong (1997) saw Singapore aspiring to become a 'global' city of the 21st century by focusing on the "heartware of Singapore - our love for the country, our rootedness and our sense of community and nationhood". A select committee was assigned the task of looking beyond economics and material comforts to focus on the "intellectual, emotional, spiritual, cultural and social" needs of the nation. Education lay at the heart of this meritocratic society and has been highlighted by the government as the flagship that will deliver the nation's goals in the new millennium.

2.2 The Singapore Education Scene

2.2.1 The Role of Education in Singapore

Since becoming self-governed in 1959, Singapore has placed enormous emphasis on education²⁴ as the cornerstone of nation building (Soon, 1993). Mr Tan, K.Y. (1990: v) as Minister for Education said that this was in line with “the special reverence that Asian societies have for education”. Education received significant attention because it equipped citizens with an opportunity to enhance individual and social productivity, whilst simultaneously inculcating desirable values. This enabled society to become disciplined and cohesive (Yip, Eng and Yap, 1994). Mr. John Yip, Director of Education, reiterating the political importance of education to the success of the economy, stated in his address at the ‘Principals’ Conference’ in 1995 that “education in Singapore must be a means to nurture a competent, adaptive and productive workforce.” Consequently, education was directly associated with the success of the economy and was targeted as the source of the nation’s ability to succeed in the 21st Century.

Through the policy of ‘nation building’²⁵ the Singapore government motivates its citizens through an ideology of excellence. The uniformity and coherence of statements about excellence, upgrading and value added are features of this meritocratic policy and represent common expressions in political rhetoric that have created a culture, which pervades every facet of public and commercial life. Education is considered to be a vital component of this process.

Chua (1995:27) suggested that it was education that facilitated the economic transformation of the nation into a “meritocracy”²⁶, which was emphasised as a

²⁴ The education system was formerly modelled very much on British lines. Even today ‘O’ and ‘A’ Levels are taken from the Cambridge Board (Singapore Certificate).

²⁵ The ideology of ‘nation building’ rose to the top of the political and social agenda after independence in 1965.

²⁶ Meritocracy by definition means “a culture of achievement”, a social system which gives the highest positions to those with the most ability (Longman: Dictionary of Contemporary English) .

pragmatic way to extract the best from each citizen. Chen (1972) stated that it also rewarded the individual based on the principles of competition, ability, motivation and performance. In his address to Parliament in 1988, then Deputy Prime Minister Goh, clearly stated the importance and direction of education by stating that "excellence in education is our goal. The government aims to raise the standard of all schools in Singapore,.....to nurture inquiring minds and to create a lively, intellectual environment which will ultimately spread throughout Singapore society."

This intention is still evident in today's educational policy, which is designed to encourage children to progress through the system at their own pace, as far as their ability would allow, however, their advancement must always depend on performance and merit to ensure equality for all²⁷ (MOE, 1994). Educating the young and maximising their potential (Goh, 1996:49) are the keys to maintaining any country's competitive edge in the global market, however, in Singapore, educational qualifications are a particularly high priority and the resultant paper chase is hotly contested. The government believes that "people are and always will be, our most precious resource.....and education will receive the highest emphasis as it is resourcefulness...that will determine the winners and losers of the future" (Singapore: The Next Lap, 1991:33).

As evidence of the success of educational policy Sharpe and Gopinathan (1996:379) stated that, in 1990, the literacy rate of the ten to nineteen-year-olds was exceptionally high (99.4%)²⁸, which represented a very different picture from the period immediately after the war when almost half the population was illiterate. They went on to suggest that the collective standards and results of Singapore's top schools have reached a ceiling with very little room for further improvement necessitating a paradigm shift to a different level of difficulty and achievement. Competition was a vital component of educational success as Singaporeans vied for limited positions of status within society and succeeded

²⁷ Every child in Singapore undergoes at least ten years of general education (MOE, 1994).

²⁸ Out of 37,141 pupils taking the Cambridge O level examinations in 1997, 90.3% received three or more passes and 70% of pupils received five or more passes: both half a percentage point down on the previous year (ST, 3rd March 1998).

only on merit. This success could be attributed to the fact that Singaporean schoolchildren, participating in the International Mathematics and Science experiment²⁹, spent an average of 4.6 hours per day on homework compared to an international average of two to three hours (Straits Times, November, 1996).

Singapore's Minister for Education, in an address to an Asia Pacific Education Forum in Washington DC, defined four factors that would be important to Singapore as it prepared its pupils for the 21st century:

- 1) high academic standards within a structured national curriculum;
- 2) adaptability and creativity (to meet the demands of a fast-changing world);
- 3) a more global outlook (to cope with increasing internationalisation of the world economy); and
- 4) a set of shared national values to emphasise the family, the community and consensus building.

Lee Yock Suan, 1992.

These objectives laid the foundation for the mission of the education service "to mould the future of the nation, by moulding the people who will determine that future" (MOE, 1996:website). The Ministry of Education (MOE) aims to develop Singaporean children to their full potential through a balanced and well-rounded education, whilst nurturing them into becoming good citizens who, they believe, would be conscious of their responsibilities to their family, society and country. However, the pressures of academic accreditation have become so intense that parents, teachers and students themselves have lost sight of the balance in their education to focus on the achievement of good examination grades which would earn the student a place at university. As a consequence, many students of primary and secondary school age have personal tutors³⁰ to help them pass their school exams, particularly the Primary School Leaving Examination (PSLE). Parents obviously play a very important role in education but as a

²⁹ A study of 8,500 13 year olds in 45 countries by the International Association for the Evaluation of Educational Achievement.

³⁰ Such is the anxiety of parents about academic accreditation that some children, as young as pre-school, have several subject tutors. Being a subject tutor can, in some cases, be the equivalent of a full-time job.

result of the intense competition for places in schools many Singapore parents are known to take holiday leave prior to the school examinations to help prepare their children. Such is the parental pre-occupation with examinations, which illustrates the power, influence and abuse of academic accreditation that has overwhelmed the social consciousness of Singapore.

Entrance requirements for universities in Singapore are high³¹ and there are so few places available for the number of applicants that only about "one in five with entrance qualifications is accepted" (Cameron-Jones, 1997:34). Many aspirants therefore have found it necessary to study overseas at enormous expense in order to acquire appropriate accreditation to find their niche and rank in Singapore's meritocratic system. As education is perceived to be the only means of providing access for upward mobility, students, with tremendous encouragement from parents and teachers, perceive that they have to become single-minded and consequently focus intensely on their studies. Academic studies are often pursued to the detriment of sport and physical activity, which serves to effectively cap any progress in these activities that has been established so painstakingly in the primary and lower secondary years.

It is therefore most apparent that significant importance is attached to academic attainment by both the government and the people. Sharpe and Gopinathan (1996:370) suggested that this trend produced "impressive educational results" whilst Cameron-Jones (1997:31), sensing this significance, described education as a "national passion." Mission statements such as 'every child can learn, achieve and excel' are prominently displayed around school buildings to reinforce the educational ideology in the minds of the children.

In September 1998, the government recognised some deficiencies in the educational system of being able to meet the unforeseen demands of a future knowledge economy.

³¹ For entrance to a university in Singapore students need a 'Full Certificate' which means a minimum of 2 A levels and 2 A/O Levels awarded at the same sitting.

The government has consequently implemented structural reforms, such as National Education³², Creative Thinking and Information Technology initiatives to upgrade the current efficiency-driven model of education to one that is ability-driven to secure and maintain the nation's survival in the next millennium.

2.3 Sport in Singapore

2.3.1 The Development of Sport in Singapore

Sport, in Singapore, has only just reached a level of cultural and national importance. Although it has been identified and utilised as a political medium for social unification and economic productivity since 1972, sport has only recently taken on much greater significance as a potential means for highlighting the nation's international status. Mainstream political ideology, founded on national survival, security and prosperity, views sport and physical education as subordinate to mainstream education. It is, nevertheless, considered to be "instrumental to the process of nation building" (Lau, 1975: 2; Aplin et al., 1997: 2).

2.3.2 Historical Settings of Sport

As a direct result of Britain's settlement and later colonisation of Singapore, sport emerged as an aspect of the dominant cultural practice. British imperialism created the total infra-structure of Singapore from the time of Sir Stamford Raffles (1819) through the powerful agencies of language, education and sport. Culture was effectively imposed

³² National Education was included to teach young Singaporeans about the country's history: its struggle for survival as well as its vulnerability, as a means of inculcating national values and pre-empting any complacency that may have been created in their minds through the blossoming affluence of the 80's and 90's.

upon the territory. At this time the majority of migrants to the British colony of Singapore were of Chinese descent and sport as an institutionalised form had little or no place in their way of life.

During colonial times there existed wide cultural, racial, religious and social diversity whilst a system of social stratification placed the colonial settlers above the indigenous population. At this time sport was perceived by the majority, the ethnic Chinese, to be trivial and unimportant compared to education, qualifications, career, social status and wealth. For the ethnic Chinese vigorous exercise, according to Horton (1998:16) was associated with "toil and labour and was therefore illustrative of the lower classes", while on the other hand the more dominant aspects of middle-class physical culture were more closely related to beneficial health³³ practices. Yeoh (1996) stated that with the concentration of power in economic, political and social matters in the hands of the elite "opportunities for education and sport were not divided at all equally" (Aplin et al, 1997:3). These factors, central to the colonial process, were to have long-standing influence over the relationship between sport and study.

A cultural hegemony developed continuously and by the turn of the 20th Century Victorian attitudes and values towards race, gender and social status were entrenched. Such social values were not just peculiar to the British, their acceptance represented a cross-cultural chauvinism of the period. "Prevalent bourgeois values in sport were also encouraged through the philosophy of muscular Christianity, amateurism and the cult of Athleticism" (Horton, 1998:17). It is accepted that the cult of athleticism coupled with the ideology of muscular Christianity promoted the British Games Model throughout the Empire and it was "an essential feature of the cultural imposition of the British in their colonies" (Horton, 1998:39). The major influence on sport initially came through the aegis of the British armed forces and colonial settlers and much of it was organised on an ad-hoc basis and regulated through invitation rather than ability. Sport was treated

³³ Health, for the middle-class Chinese, mainly necessitated the consumption of potions, traditional herbs, food and rest. Practices such as the callisthenics of Qi Gong and Tai Chi, were also used for health but also for prosperity.

incidentally as a "palliative for boredom" (Sharp, 1993:15) as well as an affirmation of class, gender and race (Horton, 1999).

By the turn of the 20th Century an ethnic Chinese counter-culture was materialising. The wealthy upper class Chinese and the powerful middle-class, recognised the importance of education and sent their sons to the best private schools, the English vernacular schools (Raffles Institution, Saint Joseph's Institution and Anglo-Chinese School), which had been established very much on traditional 'public school' lines. As a result the ethnic Chinese, influenced by the behaviour and dogma of this Victorian culture, later adopted and replicated these values as their own. So powerful was this British ideology that it also began to affect the culture of the Chinese Language schools and the mission schools³⁴, however, "not to the extent of relinquishing their ethnic, cultural connections" (Horton, 1998:14). This value system acknowledged and accepted games as an integral part of life and as an important vehicle for producing gentlemen and leaders. By 1900, the Chinese language schools were receiving their curriculum directly from China "via imperial edict" (Horton, 1998:10) emphasising the strong and direct influence of the motherland. Students in mainland China, returning from studies in Japan and influenced by the role of military drill and physical training in that system, brought influence to bear on the style and direction of physical activity in their schools. This occurred much later in the Chinese schools in Singapore, which were becoming "conduits for Chinese nationalism" (Horton, 1998:13). "Much of the culture of sport that was promoted as a feature of mainland Chinese nationalism had been adapted from the teachings of the American missionaries-cum physical educators of the YMCA" (Horton, 1998:26). Sport manifested itself more as a club pastime for the affluent. Sports clubs, such as The Straits Chinese Recreation Club (Chinese), The Singapore Cricket Club (British expatriates), The Singapore Recreation Club (Eurasians) and The Singapore Swimming Club (Europeans), "catered to the wealthier settlers and were organised on distinctly racial³⁵

³⁴ Mission schools emerged in Singapore as early as 1834, when the American Board of Commissioners of Foreign Missions declared Singapore as a base for its missions in China and in the space of just three years, 19 of these schools had been established in the colony.

³⁵ Male gender was also used frequently as a criterion for selection in the colonial clubs.

lines, exclusively for elite residents rather than elite performers" (Aplin et al., 1997:4). During this period sport flourished only in the premier schools, like Raffles Institution, but was not as successful in the Singapore school system as it had been in England's public schools (Aplin et al., 1997:4).

Socially, Singaporeans had always been racially segregated by choice and sport, which was still dominated by a small English-speaking minority of the population, was no exception. The People's Association (1980) stated that cultural chauvinism and racial discrimination in sport continued unabated until the end of the 2nd World War. After the war, the colonial approach to regulating activities in a multiracial society was to divide the population on the basis of ethnicity. This segregation not only succeeded in reducing the available pool of talent, it simultaneously reinforced allegiance to specific sports, which reflected "a racial typing of games" (Lau, 1973:17). "The Indian section have tended to play hockey, cricket and soccer while the Malays have focused on soccer and sepak takraw and the Chinese dominated basketball, volleyball, badminton and table tennis³⁶" (Aplin et al., 1997:7). Segregation also succeeded in promoting racial rivalry, which, in turn, spawned a disharmony that was visible on the playing fields. Horton (1998:33) commented that as a result of the racial turmoil immediately prior to independence in 1965, "the Lee government virtually banned the racial exclusivity of the premier clubs and the communal nature of the ordinary sports clubs" in an attempt to diffuse the existing tensions. Paradoxically, sport was seen clearly as a catalyst for ameliorating these racial tensions and was used directly by the government for this purpose.

The evolution of the education system in Singapore played an equally divisive role in reinforcing the segregated social norms. The 'compartmentalisation of education' (Gopinathan, 1974:3) into English and vernacular schools succeeded in accentuating racial, cultural and linguistic differences and also created a rift between rich and poor,

³⁶ These so-called Chinese sports are not in fact traditional to their culture like Wu-shu or Qi Gong. Basketball and Volleyball were actually introduced to the schools through the American missionaries of the YMCA at the turn of the century (Horton,1998:26).

effectively hampering the development of school sport (Turnbull, 1989). Similarly, the sporting traditions of a top English medium school in Singapore were:

totally consistent with those of the 19th century English public schools on which it was modelled, identifying more with soccer, rugby and hockey. Organised sports days, house competitions, compulsory attendance at school matches, and a great enthusiasm on the part of the school teams to win in every competition were significant features of this ethos (Saunders, 1993:355).

In the Chinese-medium schools, on the other hand, where there was often little space³⁷, there was a concentration on drills, callisthenics and relays although sports like table tennis, volleyball and basketball later developed in popularity. Even today, according to Aplin et al. (1997:8), "many basketball coaches and players communicate in Mandarin or Hokkien, highlighting the resilience of Chinese culture in these sports."

2.3.3 Contemporary Sport

The American missionaries, the British, and the ethnic-Chinese unquestionably left their cultural imprint on the development of sport in Singapore. "The fusion and dynamics of these Imperial forces facilitated the establishment of a complex, characteristically Singaporean sports culture" (Horton, 1998:39). Certain residual elements from these influences are dominant to this day and are reflected in a number of different ways.

The societal importance of gaining qualifications has intensified over the last ten years as the nation has become more affluent, middle-class and meritocratic. The status of sport, in the Singaporean mindset has remained subordinate to qualifications but was, nevertheless, used as a means of class distinction, based on wealth. Golf and tennis are symbolic of social status for the middle-class whilst exercise and weight training in private clubs have become popular with the younger professionals. Consistent with the concern about image there were forces creating a notion of narcissism in this fitness cult.

³⁷ This was particularly the case for the girls' schools.

Body image, reinforced through the Trim and Fit Club for obese pupils in the schools, through National Service and through the government's push as a eugenics driven policy for lifelong fitness, was not only perceived as trend-setting but was a manifestation of the 'healthist' perspective of earlier generations.

The forces of globalisation, which act through the medium of television and more recently Information Technology, are obviously impacting upon Singapore. Today's post-modern era reflects the quasi-cultural, subliminal imperialism of the West, which is assuming a significant role in the future direction of Singapore's sport culture. Singaporeans watch major sporting events weekly such as the Premier League from England and the NBA from the USA and are subjected frequently to the influence of the merchandising moguls like Nike, Fila, Reebok etc through cable television.

2.4 Mass Participation

2.4.1 Origins and Influence

A review of political initiatives since self-government in 1959 provides a clearer picture of the current function, utility and status of sport in the Republic and leads to a better understanding of the national psyche. Since well before independence the government has implemented a succession of sporting and health initiatives, such as the establishment of the People's Association, as instruments for nation building. At that time, political and economic motives underpinned measures to improve social harmony, fitness levels for military recruits and participation levels of the general public. It was the first body of its kind and "had as its *raison d'être* the promotion of multiracial community recreation" (Aplin et al., 1997:10) which essentially provided the rationale for social unity.

On completion of the National Stadium in June 1973 and as part of the government's commitment to the policy of mass participation, the National Sports Promotion Board

and the National Stadium Corporation amalgamated in October 1973 to form the Singapore Sports Council (SSC). The SSC was given responsibility to oversee the organisation and administration of sport in Singapore.

One of the first direct incursions of the government of Singapore into sport came in 1973 when it became officially enlisted as a political-economic tool through nation building. Then Prime Minister of Singapore, Lee Kuan Yew, in his speech to launch the 'Sport for All' campaign, at the inauguration of the National Stadium³⁸, stated that "our purpose is to generate healthy, vigorous exercise for the whole population, enhancing the valuable qualities we have in our people - keen, bright, educated and more productive if they are more fit."

The Prime Minister at this time encouraged more and more people to take up sport and to make a habit of daily exercise to keep fit, as this was deemed necessary in an urbanised and mechanised society for a productive workforce. The development of sport was concerned with improving the fitness levels of

- 1) the workforce, which was at the heart of the economy and
- 2) the Armed Forces, who were the core of the nation's defences

and in this way, sport was "fundamentally interpreted as a leisure pursuit" (Aplin et al., 1997:10). Participation, it was thought, would provide satisfaction from the challenge, the release of tension and the exercise whilst simultaneously inculcating common values such as loyalty, sense of belonging and teamwork (Turnbull, 1989). This functionalist rationale became part of a philosophy which, undeniably, culminated in events that encouraged and promoted mass participation. Mass events have become a feature of educational and civic life in Singapore ever since the first Singapore Youth Festival in 1973, organised by the Ministry of Education, was held in the 'National Stadium'. The involvement of the government in sport has also continued to a point where currently Members of Parliament

³⁸ A national sports arena was constructed in 1973 to provide an alternative but better location to The Padang with greater spectator capacity for national events.

may be deployed to the Management Committees of the more important NSAs to oversee the well being of the particular discipline.

2.4.2 Sport for All

The "Sport for All" campaign was launched as government policy through the agency of the SSC to encourage masses of Singaporeans to participate more actively and regularly in sport and physical activity. In tune with this mission the SSC, within three years, was organising coaching courses in basketball as well as 'Learn to Play' schemes in swimming, tennis and squash. Mass participation was explicitly targeted in 1976 through a "Big Walk"³⁹, organised in conjunction with the Singapore Amateur Athletics Association (SAAA) and the planning of an Aerobic Fitness Award scheme for implementation at a later date. The Fitness Award was designed to encourage mass participation by providing incentives for achieving and maintaining desired levels of fitness (SSC Annual Report, 1975/76). The need for these official schemes indicated, to some extent, that the citizens had still not adopted an acceptable level of physical activity for themselves as part of their regular routine. Activity was provided through centrally organised events, which consequently became very popular, however, the one-off nature of these mass events essentially became a visible token of directed play, as many citizens needed extra persuasion to exercise. The response and popularity of these mass events effectively describes the predominant nature of the "sport culture" in Singapore, although more progress has been established recently.

The resulting affluence and burgeoning national pride from the successful economic development of the 1970s, however, sought new outlets through recreation, leisure, travel and sport. The best and brightest from all sectors were sent overseas on Public Service Commission Scholarships and sport was no exception. By 1982 a small number of talented student-athletes had been sponsored to attend institutions in the United Kingdom

³⁹ The Big Walk was 20 km for men and 13 km for women.

and the United States, thus raising the profile and importance of sport within the community.

Now twenty years later, while mass participation is still important, there is a drive for sports excellence in Singapore and the focus has turned towards achievement and the creation of new incentives for athletes. These incentives were particularly designed with medals in mind for the ASEAN, Asian and Commonwealth Championships and beyond to include the 2000 Olympics and have been packaged in a scheme called SPEX2000 (Sports Excellence 2000) (Koh, 1994).

2.4.3 Sports Excellence

Following publication of 'The Next Lap' in 1991, which detailed the government's intentions for its new term of office, a new scheme for sport was proposed which would upgrade the nation's international standing from twenty years of mass participation 'Sports for All' to sporting excellence 'SPEX2000'. Much had changed from 1973 when Lee Kuan Yew stated that "with a population of just over 2 million, let us not waste time to go out of our way to produce gold medallists, whether for Olympic, Asian or SEA Games. There are no national benefits from gold medallists for smaller countries."

'SPEX2000' was launched in December 1993 by the Ministry of Community Development in conjunction with the SSC with the principle aim of fostering sports excellence to ensure success for Singapore in regional and international competitions. This scheme would complement the 'Sport for All' philosophy still emphasised as important for the community at large. Simultaneously SPEX2000 aimed to firmly embed sports in the bedrock of Singapore society so as to stimulate national pride and unity whilst it was to add a new dimension to Singapore's development as a nation. The Sports Council, National Olympic Committee, Ministry Of Education, Ministry of Defence plus National Sports Associations all contributed to drive the policy of SPEX2000 and were committed to creating a conducive

climate for sport in Singapore. Through this scheme for encouraging excellence the government acknowledged the importance of sport and the significant role that it had to play for the nation. Having achieved success in the international economic arena, sport was now identified to be the vehicle to carry a banner into a new era, signifying that Singapore had come of age as a developed nation.

SPEX2000 was designed to support and encourage deserving athletes, with the ability to win at regional and international competitions, to achieve their full potential, to set themselves targets and to achieve goals of excellence, regardless of which sport they played. The scheme identified seven 'Core' sports⁴⁰ for extensive development as well as seven Merit sports⁴¹ for enhanced funding. This proposal was not absolute or rigid and is to be adjusted periodically based on performance. More grants (Sports Excellence Assistance Programme: SEAP) were to be available to support deserving athletes and in certain cases grants were to be doubled and subsidies for overseas training and competition increased. Athletes who stopped work temporarily to train full time in preparation for major competitions were to receive enhanced financial aid. Additionally and whenever possible the SSC would assist these athletes to establish their careers after they retired. The Ministry of Defence, often a barrier for sporting development, had agreed to play its part in motivating potential champions by allowing top athletes time for training and competitions through the SAF Sportsman Scheme. These incentives represented a quantum shift in mindset towards the values and importance of sport to the community, particularly by the military. As an indication that Singapore was taking sport and international success seriously, funds amounting to S\$10 million annually, from the government's budget surplus, had been made available for training and competition. As well as improving existing services, including the provision of foreign coaches and new facilities for athletes, arrangements had been included to assist existing school programmes. A similar scheme (SEAPS) also made training allowances available for elite school athletes and other major initiatives within the Scheme were plans to build an international swimming complex and

⁴⁰ The seven Core sports are: badminton, soccer, swimming/water polo, table tennis, tenpin bowling, track and field and yachting.

⁴¹ The 7 Merit sports are: body building, hockey, sepak takraw, shooting, squash, taekwondo and wushu.

a sailing centre as well as the upgrading of two stadiums for track and field training and competition. This new thrust would attempt to build on the standards that had already been achieved to raise the overall standard of sport in Singapore.

2.4.4 National Health Campaign

By 1990 it had become apparent to the government that the ideology for mass participation to produce a physically fit and productive workforce was not satisfactorily achieving its intended outcomes. As a consequence and with full awareness of detrimental trends and statistics in healthcare, a campaign was promoted by the government to improve the status of the nation's health. This concept essentially began in 1991 with a Report of the Review Committee on National Health Policies, "Healthy Family-Healthy Nation". The Committee proposed, by the year 2000, to:

- reduce the overall obesity level in the adult population to 3%, and to 9% for school children;
- increase the proportion of Singaporeans who exercise regularly to 40%; and
- decrease the overall smoking rates in the country to 10% .

These three goals would obviously not only make for a more productive workforce by cutting down days lost to ill-health but would reduce the burgeoning national health bill in the face of a greying population, while at the same time leading to a better quality of life for all Singaporeans. Indirectly this policy would impact on the schools through encouraging healthy lifestyles, reducing or preventing teen smoking and improving diet and exercise to lower obesity levels.

The National Healthy Lifestyle Campaign was launched in 1992 through the main report "Towards Better Health Care". The campaign was fundamentally targeted at enabling Singaporeans to achieve better health through Healthy Lifestyles, the reduction of preventable diseases and the upgrading of medical care as well as the optimisation of

medical resources in both public and private sectors. The major emphasis was initially exercise and increasing levels of better nutrition in an attempt to reduce the levels of coronary heart disease. Each year the campaign has had a new slogan targeting a different segment of the population. In 1992, the target was "Fitness for Everybody", four years later, in September 1996, the "Sports for Life" programme was launched by the SSC with a view to promoting 'graciousness and fair play in sports on a long term basis' (Straits Times, November, 1996). This fell in line with a bigger government campaign to create a more caring, compassionate and gracious society. The primary goal was one of adding value to every Singaporean life through participation in sport. The link between sport and health had been cast.

Thus, for the purpose of health, economic productivity and international status, there can be little doubt about the government's intention to elevate the importance of sport in the culture of the post-modern Singaporean and thus, funding to the tune of S\$19 million was made available. This sum would build 15 new regional sports and fitness centres⁴², develop programmes and train suitably qualified personnel for them as well as the constituency sports clubs. Other motives of the programme were designed to bring about family togetherness and to enhance the community spirit through the development of a healthy lifestyle. The rewards of a 'participation for life' policy were to add value and quality to the material gains of a thriving economy.

A statement from Prime Minister, Goh Chok Tong, captured the perceived centrality of sport in the projected culture of the future as an integral, even core, behaviour of a mature and gracious society. He identified the characteristics of the would-be 'ideal' citizen the country would be proud of when he stated that:

my idea of an all-rounded Singaporean is one who is well educated, cultivated, sporty, caring and gracious. Such a Singaporean reads widely, enjoys music and the arts, sings or plays at least one musical instrument, is active in sports and

⁴² Regional centres were to promote Learn to Play schemes in eight sports and look to national athletes to run these centres to give the programme a "profile".

cares for his fellow citizens. Most of us are not such a complete person....but everyone can be competent in at least one sport.

(Straits Times, 30th September, 1996)

2.4.5 Popular Recreational Pursuits in Singapore

Over the years mass participation events have created an aspect of Singaporean culture that has become increasingly popular and the following examples help to characterise the flavour of this culture. As part of its health campaign to get the nation exercising many events, such as “The Great Singapore Workout”, are held annually. This event attracted a Guinness Book of Records total of 30,000 people exercising through aerobics on The Padang⁴³ in 1995, The Big Walk in 1998 with over 69,000 participants also achieved this accolade. The National Family Swim, organised at 19 public swimming complexes and five private clubs, attracted over 25,000 people in 1997. This was rather disappointing for the organisers as the event was adversely affected by the “smoke-haze” from Indonesia⁴⁴ and numbers were down on the previous year’s tally of 28,000. In addition to these events there was also a mass bicycle ride organised annually on a national scale that terminated at the National Stadium and once again attracted significant numbers.

The latest initiative to be launched in relation to the Sports For Life programme was the creation of the ClubFITT programme in 1997, which again was charged with the mission of encouraging more citizens to exercise. Relatively low costs, compared to private fitness centres, and state of the art equipment coupled with a friendly ambience, were used as incentives to woo the general public, who were not responding in significant numbers to the exercise regimen being advocated by the government. In spite of the significant popularity of the mass participation events mentioned previously there was

⁴³ The Padang is a historical sporting landmark outside City Hall which dates back to mid 19th Century and is most renowned as the place where the Japanese forces surrendered to the British at the end of World War 2.

⁴⁴ A serious level of air pollution caused by the forest fires in Indonesia.

considerable evidence that citizens had not yet accepted responsibility for their own regular exercise routine but rather relied on other agencies to organise it for them.

In 1991 Prime Minister Goh re-emphasised the concept of a rugged society⁴⁵ which had been used as an ideology for standing up to the rigours and responsibilities of defending the country and being independent. Not long after and in keeping with this sentiment the Singapore Mountaineering Association, under the Patronship of President Ong Teng Chong and with the full consent of the government, embarked on its first expedition to climb Mount Everest (March-May 1998). This latest project, highlighted by daily media reports, furthered the cause of nation-building by forging a national identity through championing the rugged outdoors, a valuable ingredient for the maturing national consciousness. The successful expedition's contribution to lifestyle was summed up by Tan Kin Lian, Chief Executive Officer of NTUC Income, one of the major sponsors, who stated that "this expedition has also focused public attention towards not only mountaineering but all kinds of sports and physical activities. It will encourage more people to be physically active and adopt a healthy lifestyle" (Straits Times, 25th May, 1998). Prime Minister Goh Chok Tong used the achievement as national propaganda by commenting that it had "symbolically and literally shown Singaporeans that with grit, teamwork, careful planning and training, we, individually and collectively as a country, can scale great heights". This image is not however truly representative of mainstream culture and in spite of serious efforts to develop a rugged society this challenge was achieved with the assistance of imported talent. Nevertheless, it was an important milestone in the nation's development and a measure of successes to come in the future.

2.4.6 The Current Status of Sport

Sport has now reached an important stage in its development in Singapore with the

⁴⁵ The 'rugged society' was first conceptualised in 1968 at the introduction of national service when it was identified as an important characteristic for defending the country after British occupation ended.

appointment of Ng Ser Miang (SSC-Chairman) as a member of the International Olympic Committee on the 5th February 1998, making him the 27th Asian member of the IOC. However, with sport's status, as a multi-million dollar industry, sport should have its own Ministry and be on a par with the Arts (Straits Times, 1st January, 1998). Sport, it was argued, had a stronger community link than the Arts but no Minister. However, the competence of some of the NSAs was brought into question with a suggestion that executive muscle was needed to give them a "facelift" as and when necessary. With the world of elite sport becoming more professional, Singapore could not afford to sit back and allow NSAs to operate at the whims and fancies of its self-selected and appointed administrators. Although sport is currently administered by the SSC and the SNOG, with more and more money being poured into its development, Robert (1998), The Straits Times Sports Editor, felt it was important to have more power of accountability to ensure that funds were well spent. A minister would be able to help a troubled NSA to function more sensitively.

According to some recent research conducted by the SSC, the government's policies for national fitness appeared to be bearing fruit. A survey of 8,000 people found that the proportion of citizens who exercise once a week had risen from 14% in 1992, to 24% in 1994, to 34% in 1997. This represented a marked improvement, according to Ng Ser Miang, but was still low and short of the Sports Council's target of 40% by the year 2000. The largest increase in activity came from the senior citizens and retirees who increased their participation from 12% in 1992 to 30% in 1997. Adults exercising three times a week had also gone up from 8% in 1992 to 14% in 1997.

In a previous survey conducted in 1992 about one-third said that nothing would move them to take up a sport but by 1997 the number was down to one fifth. The reason could well be traced to the Sports for Life programme, which was introduced in 1996, costing around S\$10 million a year. The simpler activities of walking, jogging and swimming were the most popular amongst adult Singaporeans whilst juveniles preferred sports like soccer and tennis. In the future the SSC intends to bring sports and exercise to the

doorstep to get more of the remaining sedentary population exercising by taking its Sports for Life programme to each constituency, mainly to improve the nation's health and simultaneously reduce the escalating medical costs for the citizens. The survey clearly identified Singapore schools as the important catalyst for marketing future participation and showed also that sport participation had a middle/upper class value, similar to Britain. The government, far from just delivering political rhetoric, was also visibly backing sport financially and was justifiably expecting results from this expenditure.

Throughout this chapter the influence of the government can be seen to have played a prominent role in improving the quality of its citizens' lives. This paternalist role cannot be underestimated, to such an extent that there exists, for many, a social dependence on political initiatives for everyday matters.

Chapter 3

School Sport and Physical Education in Singapore

This chapter focuses on the nature of sport in the educational context of Singapore. Much of the flavour of school sport is a consequence of the bigger picture of sport in society. The macro picture of sport in this meritocracy is also reflected in the values that schools place on their philosophy and practice with a major emphasis in Physical Education on elite sport and winning. Just as in the wider educational picture schools are ranked for 'fitness and fatness' and tables are drawn up annually to highlight the most successful schools in sport, fitness and reducing obesity. For a deeper understanding of its function, school sport will be explored within the curriculum: Physical Education, and within the "Extended Curriculum" (Smith, 1997:19): ECA and the links that have been drawn up with the NSAs illustrate the potential of the continuum for developing sports excellence.

3.1 School Sport

Although the philosophy of muscular Christianity and the cult of Athleticism is no longer the dominant ideology there is still a pervasive residual influence in many schools. In schools founded by Christian denominations, Catholic and Protestant, it remains a pillar of their mission. The assumed flavour of Chinese civilisation continues to be reflected in the sports that are played in the Chinese Language schools and the community centres, with badminton, table tennis and basketball still perceived, erroneously, as reflecting the ethnic-Chinese culture. Racial stereotyping in sport and games continues to be visible to this day: Malays play soccer, Chinese play basketball and Indians play hockey and cricket (Soh, 1997: 302) although these boundaries are slowly disappearing. There exists a perception in some quarters that the Special Assistance Plan (SAP) schools are representative of a residual Chinese chauvinism, as there are presently no equivalents in the other languages.

Now that sport has assumed greater national importance by the government, schools have been identified as the spawning ground for future champions and the NSAs are being encouraged to make funds, facilities and expertise available for developing school sport (SPEX2000, 1994). Physical education teachers have been entrusted with the responsibility of identifying talent that will be directed towards the Youth Training Programmes of the NSAs. Local, as well as foreign, coaches have already become involved with school extra curricular activities, such as table tennis, squash, badminton and basketball. The Sports Excellence Coaching Assistance Programme for Schools (SPEXCAPS) is designed to overcome the present shortage of coaches in schools by deploying coaching expertise from the NSAs to achieve excellence in school sport which will simultaneously expand the youth talent base. The SSC and the NSAs will work with schools to recognise the involvement of student athletes in youth schemes as well as national training squads as Extra Curricular Activities in their own right⁴⁶ and schools are being encouraged to tailor their school curricula to allow student athletes time for training. This represents not so much a vast change in attitude towards school sport but more a reflection of the fact that much more could be achieved from this age group and recognition that there was insufficient support in terms of expertise, facilities and funding. Horton (1999) contends that this development has more association with 'nationalism' and 'national heroes' than with education per se.

Scholarships under the Talent Assistance Programme (SPEXTAP) are also available for outstanding young athletes to pursue their sporting careers in appropriate institutions overseas. Currently, there are a number of swimmers studying in prestigious schools and universities in England, Australia and the United States. The scholarships' main appeal is that they allow the athletes to continue competitive sports and studies overseas where the environment is more conducive for sport (Sia, 1994). This is not so much a criticism of the facilities in Singapore but more an indictment of the competitive atmosphere associated with educational achievement.

⁴⁶ Students were previously awarded school points for ECA but not for National Youth Training squads.

In January 1998, five years after the introduction of the SPEX2000 scheme the Education Minister, Rear-Admiral Teo Chee Hean, called for the NSAs to be more pro-active in promoting sports in schools. Responding to their failure to fully capitalise on the opportunities in schools afforded by the scheme he cited the example of a number of the NSAs that had been facing near extinction. These NSAs (representing cricket, bowling, rugby) had taken their sports to the schools in order to make their sport more popular and develop a stronger base.

School sport is currently having to align itself with a relatively new phenomenon: the introduction of sponsorship. Corporate investment in school sport was unheard of until 1994, when the Ministry of Education relaxed the regulations concerning sponsorship. Now it is booming with a three-fold increase up to \$824,000 up from \$230,000 in 1997. The big boost came from the Singapore Pools⁴⁷ injecting half a million dollars into the development of a Junior Sailing Club and this again emphasises the government's influence in directing the process and setting the tone. Badminton, swimming, basketball, 'futsal', table tennis and athletics are other school sports currently benefiting from this type of sponsorship. Early in 1988, Ong Lye Huat, ECAC Deputy Director stated that all official funds, however, would be channelled and controlled through the Singapore Schools Sports Council to prevent any wastage of resources. Individuals as well as schools (including Cathedral High) were also recognised directly for sporting prowess by a local golf and country club. Consistent with the pervasive Singaporean concern with materialism some school elite athletes, swimmers and sailors are also being given financial rewards for medal winning performances as incentives to spur them on. With sponsors ever present at major school meets, prize-money is likely to become much more common in the school arena as it is in the wider sporting culture.

⁴⁷ Singapore Pools is a government body that derives its income from taxes on betting.

3.2 Physical Education

Sport exists in Singapore schools under the umbrella of Physical Education in much the same way as in other countries. Bodo Schmidt (1982), a consultant engaged at the time of the establishment and development of the College of Physical Education stated that "it has been widely accepted that the micro-system of sports and physical education is a reflection of the environmental micro-system of a society." He found the sub-system of sports in Singapore suffered from many deficiencies and noted that the "emphasis on PE is given to the improvement of physical fitness of youth to meet the requirements of National Service. The consultant has come to accept Singapore's pre-occupation with this exceptional objective of physical education as a goal of national importance." Therefore, after years of planning and preparation the Ministry of Education, strongly supported by the Ministry of Defence and the SSC, accepted the consultant's recommendations and set up an autonomous college in 1984 to produce specialist teachers in Physical Education, initially, for secondary schools and Junior Colleges⁴⁸.

In order to professionally train teachers the College would prepare 'A' Level holders over a two-year period and award a Diploma in Physical Education. In 1991 the College was subsumed under the Institute of Education to become the National Institute of Education, which is a faculty of the Nanyang Technological University. The School of Physical Education, which the College is now called, runs diploma, undergraduate and post-graduate programmes and is the single national source for Initial Teacher Training.

The equatorial climate plays a significant role in the selection and manner in which sport is practised and has a particular influence over the timing of sport in the school timetable. In spite of modern school buildings, which are aesthetically appealing, it is ironical that

⁴⁸ The first proposal for a PE College was presented in 1960 by a group of Singapore teachers from the TTC, who had been trained at Loughborough College. Several consultants from Israel, West Germany, Japan and the USSR were engaged to provide input for the proposed College. There has always been a representative from Mindef on the Advisory Committee of the College. Prior to the College, short courses in PE were taken at the Teachers Training College.

schools are equipped with limited space for physical education and inadequate changing or showering facilities. Schools have been built with certain features in mind and it is clear that physical education and sport were not a high priority in the design. Even to this day, classes averaging 40 pupils predominate in most schools making for a very congested environment where there is an insufficiency of space for structured physical education programmes. In spite of this constraint, physical education is a compulsory component of all primary and secondary school programmes with a MOE syllabus designed to influence the direction of the content. This syllabus, limited in its creativity, scope and vision, has done little to elevate the status of the subject resulting in lessons that are structured with very little room for individual differences (Gan, 1994). On the contrary, pupil conformity and uniformity are much in evidence and are justified as strategies of control to facilitate the teaching of PE. Additionally, as part of their secondary Physical Education programme students in their 3rd or 4th year are expected to attend the Outward Bound School for a short course, at least once, to give them a taste of the rugged outdoors and to imbue a spirit of adventure. However, owing to the resilience of traditional values about what is important and how it is managed, the physical education programme in schools still remains shallow and dysfunctional. Many specialist teachers of physical education are heavily deployed in teaching second subjects and in many school programmes the subject is taught by untrained or relief teachers, particularly in the primary sector. Chinese Language and Home Economic teachers appear to be favourites to fill this breach, as their timetables are relatively light. This is difficult to understand at a time when so much political rhetoric is spent on the benefits and importance of sport, physical activity and healthy lifestyles and so much time and effort has been spent in training specialist teachers for this subject.

As a consequence of pressures created by the tireless demand of the MOE for biographical and statistical details, the majority of school programmes embrace the notion of physical education through fitness training and fitness testing. This is illustrated by the significance of the annual National Physical Fitness Assessment (NAPFA) test with its inherent social message. This test provides the data for the Fitness Ranking exercise that is operated by the Ministry of Education. The status and

importance of Fitness Ranking encourages schools and teachers to train their pupils for this assessment⁴⁹ during curriculum time at the expense of a balanced physical education. These elements of physical culture also have significance as a pre-requisite for National Service and there is considerable emphasis for fitness standards in schools, as well as for the inculcation of nationalistic and patriotic sentiments. This pre-occupation with fitness is not only justified for 'educational' statistics but is also designed to benefit the male students in preparation for their military training. The fitness of younger males is of such paramount importance to the Ministry of Defence, which offers many incentives to encourage healthy, fit recruits, that in 1992, owing to a shortage of suitably qualified teachers in physical education and a concurrent falling in fitness levels in National Service recruits, a selection of Physical Training Instructors (PTIs) were deployed to the schools to assist in the teaching of 'physical education'. This perception that fitness instructors can teach physical education has helped contribute a dysfunctional element that has prevented any serious pedagogical development in the teaching and coaching of physical activities in schools. This degrading of physical education specialists has also had the effect of endangering school sport as these personnel are largely unqualified, though willing, to educate young people in anything other than a limited range of options. The fitness culture has also prevented many teachers from upgrading their sporting accreditation through continuing education programmes because the perceived need and function of physical education in the schools has been the attainment of fitness objectives. Not much has changed since Bodo Schmidt's observations in 1982.

In line with the mass exercise programmes organised for the larger community, MOE organises an annual All Children Exercise Simultaneously (ACES) day in schools across the island. ACES Day is designed to portray exercise as a fun and social activity, which is part of a healthy lifestyle. This activity is representative of Singapore culture as it is compulsory for all schools and children are required to practice for the event in school time, replacing its spontaneity with rehearsal and physical education programmes are often abandoned to prepare for this presentation. In fact there is an assumption that it is

⁴⁹ It is not unusual for schools to test and re-test several times until a child passes the test.

the Physical Education Department's responsibility to organise the whole event. Physical Education is unfortunately also marginalised by other considerations including sport, vis-à-vis ECA, particularly in the double session schools, where ECA teams come back to practise and train in physical education time. This is not only tolerated but also encouraged and prioritised, in such a way that PE classes fill up the next available space, if there is one. The fact that physical education teachers tolerate this violation is indicative of the poor status of the subject and their deep-seated acceptance of the conflicting importance and values of elite school sport. The overall school curriculum, therefore, succumbing to the omni-present demand for test results and other imposed distractions, creates a further pressure for physical education resulting in a fragmentation of the programme and a dearth of content development.

Against this background for sport and physical education pupils are thus socialised, from an early age, into fitness conditioning and elite sports - a very functional and serious perspective rather than a liberal and health oriented vision. As more demands are made on teachers' time outside of the classroom and in ECA, teachers get more emotionally drained and lose sight of their pedagogical role within the curriculum. This leads to a situation where, at this moment in time, physical education lacks status within the overall curriculum. Physical Education is neither an examination subject in secondary schools at 'O' or 'A' level nor recognised alongside other programmes for gifted children, which is a reason for its low priority compared with academic studies (Gan, 1994). This was the situation facing the Principal at Cathedral High School and it is from this perspective that the study emanates as he attempted through the 'Sports Class' innovation to alter the status quo for the benefit of his pupils and for the benefit of the school's reputation as well as for developing a potential talent pool for national representation.

3.2.1 Extra Curricular Activity

As an offshoot of the PE programme and of central consideration to the study, the extra curricular activity (ECA)⁵⁰ programme is exceptionally important for the schools' status and image, especially in sport. Through encouraging elite performance, ECA disposes of large sums of money and enormous resources of time and energy on a very minute pocket of the school community. The organisation of ECA for all schools is centralised through the Extra Curricular Activities Centre (ECAC), which is responsible, under the Ministry of Education, for the overall co-ordination and administration of the ECA activities in the schools and acts in an advisory capacity. The schools' competitive sporting calendar is designed by the Singapore Schools Sports Council, which is made up from some of the school principals, the 'sports secretaries'⁵¹ of the contributing institutions and some officers of the ECAC. It is compulsory for every secondary school student in Singapore to engage in at least one ECA per year. These ECAs⁵² are geared towards cultivating desirable social values in pupils, such as team spirit and social consciousness and those athletes who take up a sport and represent their school gain recognition through participation in ECA. Pupils score points by not only attending ECAs but also through achievement within the ECA itself. These points help the student to enhance "applications for scholarships and bursaries and admission to pre-university classes" (Singapore Schools' Sports Council, 1987).

Perhaps the policy of awarding marks for participation in extra-curricular activities, including sport, was the most significant event in the evolution of the sport system in Singapore. The whole orientation of sport in schools changed as a result of this move, which allowed pupils to have a balanced exposure to various types of sporting activities.

Joseph David, Deputy Director ECAC, 1983.

⁵⁰ ECAs include clubs and societies as well as sports and uniformed groups so much so that a student could count the harmonica group as a legitimate activity for scoring ECA points.

⁵¹ A special position in Singapore secondary schools with responsibility for the administration of the total ECA programme.

⁵² The ECA programme in schools includes sporting activities, band practice, computer clubs, debating societies and so on as well as uniformed organisations such as the National Cadet Corps (NCC) which is a distinctive feature of the national culture, linking in closely with military service and the ideology of Total Defence.

In the 1970s, ECA could be used as a subject for admission into Junior Colleges, but unfortunately a large proportion of those who gained admission by this route subsequently failed in their 'A' levels and as a result this option was dropped in 1981. This academic failure was damaging to the image of the athlete and helped to reinforce the pre-occupation with studies as the only way forward. On January 2, 1997, it was reported that the points scheme had been recently revised to give sport more emphasis and greater equity with the uniformed groups in an attempt to correct the perception of ascribing a lower value to the pursuit of competitive sport. This would not only help in the promotion of sports themselves but also make a contribution to a healthier life-style among students. This revision was necessary as many children were selecting uniformed groups as an alternative to sport as it was easier to accumulate points in these ECAs and others were giving up sport completely to concentrate on studies, 'O' levels in particular. Emphasising the plight of sport, Ong Lye Huat, Deputy Director of the Extra Curricular Activities Centre, was reported to have said that in 1996, less than half (44%) of secondary school students participated in sport as an ECA (Straits Times, January 22nd, 1997).

From a pedagogical perspective one of the weaknesses of the ECA system is the fact that competitions are organised during school hours at zone (district) and national level. Making matters worse is the fact that individual schools will be appointed as convenors, hosts and co-ordinators for these championships, hence losing some of their physical education facilities. The timing also means that students from other schools cannot cheer on their friends. This type of organisation also effectively removes many physical education teachers from their schools, leaving the physical education programme bereft of qualified staff to function on its own with the help of the few who are left or in the hands of relief teachers.

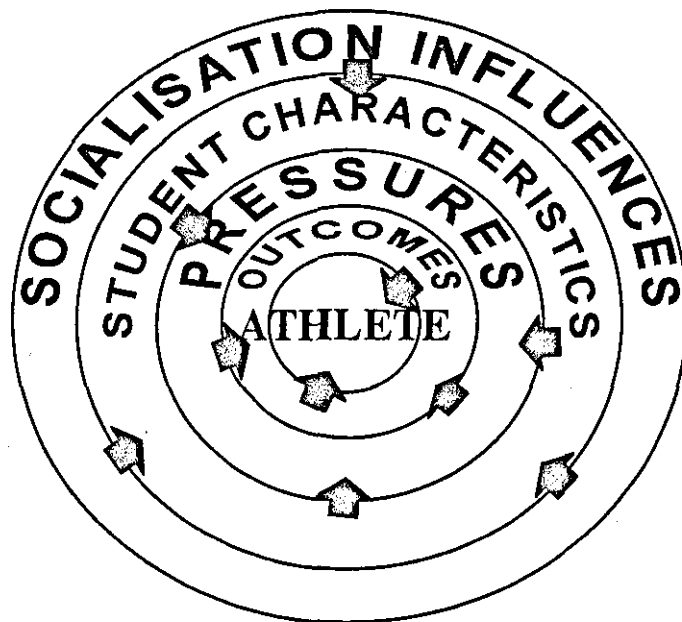
Chapter 4

Literature Review

As the field of literature contains nothing about a curriculum innovation in the field of sport excellence in a South-East Asian setting, it was important to describe the setting and the historical development of sport in the previous two chapters. As the field of literature for a topic of this genre is broad, selectivity was important to define the key areas for enquiry. Four major areas, which are germane to the practice of sport and physical education by young people, were identified for elaboration to interpret the 'SCP' initiative more accurately:

1. The Client, the young participant, was identified as the most important area for research in this study as the success or failure of the initiative revolved around the pupil. Figure 4.1 illustrates the major pressures that are exerted on school pupils, struggling to balance the competing forces of sport and academic attainment.

Figure 4.1: Social Pressures Affecting the Sport Student



As such the sports involvement, social and psychological characteristics of young people were examined as separate entities to construct a profile of the student athlete.

2. The School was the second area of research focus and although much has been recorded on this topic already, this chapter concentrates on the implementation of an innovation, the educational management and educational culture to more fully understand the SCP.
3. Sport and Excellence were obvious topics for investigation and international initiatives were explored as a basis for interpreting the overall structure of the model as well as the political and financial backing to interpret the SCP outcomes.
4. Physical Education was also an important area to review as the innovation occurred within this domain. This chapter will explore the current status of physical education to identify the tensions that exist in the development of this curriculum area.

It is important to remember that the SCP was already operational at this time and so the body of knowledge was building around the study as the dynamics of the model were simultaneously asking new questions of the literature. Regular periods of reflection, therefore, allowed the study to probe new ground as it attempted to evaluate the progress of the initiative.

4.1 The Young Participant

The focus in this section relates to the individual, to establish what it means for a young person to be involved in sport.

4.1.1 Early Specialisation

In Australia, many children had their first experiences of competitive sport before they started formal schooling and before they tasted school physical education. Tremayne (1995) identified a potential problem in that it was possible for children to have had a

wider experience of the activity than the primary school teacher who took them for physical education and, as a consequence, children became frustrated.

There has also been a concern about physical education's role of identifying talent early for specialised training as a misconceived means of predicting the 'stars' of tomorrow. Although most of the world's top athletes started competitive sports while still at school, Hemery (1986) found that they only began to specialise after the age of sixteen. There still is considerable doubt that early selection can be effective for many sports (Fraleigh, 1991; Rowley, 1986; Whitehead, 1993) without harming the child's development (Gilroy, 1993), with gymnastics, diving, swimming and tennis being the exceptions (Hemery, 1986). It was apparent that early success had only a distant relationship to future stardom and also was complicated to predict successfully (Evans, 1987; Grisogono, 1991; Whitehead, 1986). Horton (1993) thought it was inevitable that entering sports early was a necessary evil for specific sports involving high skill and strategy, if the young performer was to have any opportunity to advance to elite adult ranks, however, negative psychological consequences existed when "the setting was aversive" (Passer, 1988:73). Another consequence of the dramatic growth in youth sports was that athletes with diversified talents were finding it increasingly difficult to compete against those who practice all-year round (Osternig, 1996).

Many selections for sport were based on the "catch 'em young" policy because "if we don't, someone else will!" (Bailey, 1992:7; Hardman, 1992:39) and offered no guarantee that the appropriate children would be identified, particularly, as late developers, who temporarily lacked speed, power and other physical characteristics, would already have been discarded (Whitehead, 1993). There was sufficient evidence to suggest that early specialisation did not produce elite adult performers (Fisher, 1987; Bailey and Martin, 1988; Grisogono, 1991; Pickerin, 1994; Whitehead, 1986). Early specialisation, rather, contributed to the loss and natural wastage of a sizeable pool of talented young sports people (Bailey, 1992; Raine, 1987) largely through injuries caused by overload, overuse, disillusionment, anxiety or burnout [see: Armstrong et al., 1997; Cahill et al., 1993; Campbell, 1992; Gilroy, 1993; Smoll et al., 1988]. Whitehead (1986) was concerned that

the process of early specialisation would put the child off sport altogether before the true potential had been achieved. Young performers, as a consequence of their naiveté, were vulnerable to abuse by teachers, coaches and parents, who were manipulating them for ulterior motives (Lee, 1993; Passer, 1988; Thompson, 1993). This abuse presented moral implications for youth sport, particularly, when the young people were part of a captive audience, such as a family or school team, as is the case in this study.

4.1.2 The Gifted Performer

The development of pupils with talent has been accepted as a legitimate part of both the education process and physical education (DES, 1991; Fisher, 1996). There has been concern, however, as to the best way to develop giftedness in a physical education setting (Evans, 1987) without creating an unbalanced lifestyle, irrespective of how attractive it appeared to the child and how beneficial it became to the school. In such sports where young athletes are required to dedicate their childhood, some serious questions about freedom and democracy needed to be addressed (Horton, 1993; McKay, 1991). The gifted pupil is also entitled to a normal childhood (Martens, 1978; Novak, 1976) and sport must be seen as only one facet of a young person's lifestyle through which social values are experienced (Brettschneider, 1992).

There was also a moral dilemma for physical education teachers, owing to their meritocratic nature, establishing an equitable balance of time, access, resource and funding between the elite and the rank and file in the school programme (Horton, 1993; Simon, 1991). Simon (1991) argued that not to give equal access to the less talented was unjust and better players did not deserve to have more fun or better health simply because of their superior skills. This undue emphasis on elitism represented inequity to Michener (1976), was educationally unsound and would detrimentally affect the average to below average students (Horton, 1993). There was also a danger of transforming sport away from play into work through over-specialisation when it was carried out mainly to satisfy adults and this brought pressure to bear on the children. Simon (1991) concluded that

non-athletes who appreciated the achievements of highly skilled professionals participated indirectly in the benefits of sporting success and so inadvertently succeeded in legitimising the inequity. Nevertheless, Western culture contended that every individual shared a fundamental moral right to adequate provision for participation in sports and so equity will be examined in the SCP.

The Principal of CHS visited several sports excellence schools in Sydney in 1996 and found evidence that thorough, sophisticated, educational management allowed for elite athletes and ordinary students to successfully co-exist in an educational setting. An appropriate school sports' policy allowed greater diversity (Hemery, 1986), striking a balance between social and competitive sport experiences in the formative years (Brettschneider, 1992; Gilroy, 1993; Thorpe, 1996) to prevent young people from developing a limited appreciation of their sport and a restricted vocabulary of skills. Many world class athletes were not outstanding internationally as juniors, several excelled in other sports first (Bailey and Martin, 1988; Hemery, 1986; Magill, 1988) but most of them were introduced to sport as a fun activity and enjoyed it for its own sake (Hemery, 1986). There is little doubt that:

the institution of sport, for better or worse, is now a feature of modern society and elite sport is now entwined in a menage-a-trois with television and commerce and success requires total dedication and in most cases, a life-long commitment to the pursuit of excellence.

Horton, 1993: 7.

4.1.3 Sports Excellence

Fraleigh (1991) suggested that a school's contribution to sports achievement should not be valued as merely producing winning teams, as this corrupted the flavour of excellence. Instead, schools should focus on the well-being of everyone through instructional excellence by continuously appraising pupils behaviour in the pursuit of successful learning (Francke, 1983; Whitehead, 1986; Fraleigh, 1991). Roberts (1984) suggested that the children who survived the sport experience probably became more competitive and outcome oriented. Mancuso (1983) suggested that it was the attention to a positive

self-image, by the coach, as well as the relevance of the activity itself, which influenced the learners most towards excellence. Fraleigh (1991:151) suggested that there was much more to physical education than simply the pursuit of excellence, which was often a nebulous ideal but "a very loud siren call." People favouring children's sport saw many advantages including skill development, sportsmanship, self-esteem, independence, loyalty and commitment to excellence, whereas those opposed argued that the 'win at all costs' mentality encouraged violence, cheating, and dissent.

The responsibility for excellence must be placed firmly on the shoulders of physical education teachers (Treadwell, 1987) as they represented the most genuine means of nurturing and developing the whole child (Fox, 1992). They were also recognised for being the most significant socialising influence on girls over 13 years of age (Higginson, 1985). Treadwell (1987) suggested that the sponsorship of excellence in schools was a method of culling the winning at all costs syndrome, a strategy of many coaches outside the educational sphere. Winning can be fun, but when it was pursued to an extreme, it often resulted in many behaviours that destroyed children's self worth and robbed them of any fun in playing (Martens, 1996).

4.1.4 Junior Sport

Gummerson (1992:19) considered sport during adolescence, essentially the timeframe of the SCP, in three phases. He identified:

1. a 'performance period' between 11-14 years of age when youngsters were exposed to non-modified, full game situations in a wide variety of sports;
2. a 'development of excellence period' from 14-16 years when they were able to select from phase 1 at least one activity for specialisation; and
3. a 'specialisation period' from 16 onwards when as a result of increased physical and mental maturity young people were capable of withstanding the pressures of specialisation.

Horton (1993) contended that many potential excesses emerged in junior sport through ignorance, mismanagement and over enthusiasm as it was not easy for coaches, especially those from China, who had been socialised into a 'professional' value system to accept the principles advocated for children's sport. Biddle (1993) thought de-emphasising winning in favour of personal performance, enjoyment, fair play and equal opportunity represented a radical departure from values that underpinned senior sport and society in general. It was not surprising, therefore, that an adult thrust into the role of coaching an underage team would continue to draw on principles which measured success in terms of winning and losing. "When coaches have goals which can only be realised through children, whose real needs are not met, it is unbalanced and wrong" (Lee, 1993:37). Biddle (1993) argued that the needs of young people must take priority over the activity, which should be measured by its contribution to personal development that Hardman (1995) thought included healthy well-being, moral issues and quality of life. Horton (1993) said it was apparent that the better educated the sports professionals were, the better the proposition would be for young athletes as, Klug (1996) added, there was much to be gained from a positive sports environment.

Thorpe (1993) recognised that physical education teachers were unable to cope with all the ECA demands for every student, which is particularly true in Singapore, where they have to rely on external coaching expertise to develop relevant programmes. Smith (1997:19) thought that "danger existed when other organisations entered the world of school sport." Although they acted in good faith they often failed to understand the school philosophy with regard to sport and physical education. Schools, therefore, had to be careful about the credentials of the coaches they permitted into their programmes, especially the foreign coaches in Singapore, because they most probably introduced sporting and cultural bias, which were alien to educational values. There appears to be a lack of appropriate controls about the calibre of coaches employed by principals in Singapore, but an ingenuous belief that they must be good or they would not have qualified.

4.2 Physical Growth and Development of Adolescents

Aldridge (1993) stated that physical development in young people was largely genetically controlled although environmental conditions did have an effect and it was probable that physical problems would have socio-psychological outcomes. If this was so, the knowledge of growth and development could help coaches to make informed decisions about the design of sport programmes and strategies for successful learning, where things other than ability were valued (Whitehead, 1993). The age for sport participation, recognition and accreditation was falling, stated Lee (1993), and so it was important to consider the overall development of the young person during this period. Understanding agencies were aware that the child was not a mini-adult (Armstrong, 1996; Lee, 1993; Osternig, 1994), however, the turbulent period of adolescence⁵³, had gradually expanded due to biological and cultural factors and now encompassed the child's second decade (Gallahue and Ozmun, 1995; Lee, 1993). The sport culture in Singapore does not, however, reflect similar values, as young people are inculcated with adult concepts and values from an early age to an extent that it is compulsory for a primary child to perform a sprint start in a school race. Full-sided games are also considered appropriate learning strategies in most school physical education classes.

Osternig (1994:15) stated that young adolescents were "in a complicated and critical growing period" with asynchronous variations in muscular and emotional development, which, stated Klug (1994), complicated even the most carefully designed studies. Studies have shown almost universally, that "active boys and girls were significantly superior to their sedentary counterparts in strength, suppleness, and stamina" and were also healthier (Osternig, 1994: 17). As the study contains elements of both groups it will be interesting to see what differences in stamina emerge from the fitness testing.

Rowland (1996) indicated that gaining insights on the effect of physical training on young athletes was a very difficult process. Research into training had shown that the 'more is better' philosophy may not always be valid for adolescents because the number

⁵³ Adolescence is a 20th Century construct, previously childhood was followed directly by adulthood.

of times they exercise per week and the amount of time per session could be much less significant than was previously thought (Klug, 1994). Klug (1994:26) added that "the amount of exercise needed to maintain a level of fitness was much less than the amount needed to create it" and fitness gains achieved during certain types of training were not lost as rapidly as previously thought, even if training temporarily stopped.

Stress and anxiety were important elements of competitive sport for children and were seen to be highest during adolescence (Roberts and Treasure, 1993). However, Martens (1988) stated that the stress arising from participation in children's sports was not excessive for the majority, apart from a small minority, who evaluated their self-worth solely on the basis of winning and losing. Osternig (1994:18) suggested that "empirically, children have the capacity to physically withstand and adapt well to the stresses of most forms of organised sport."

Adolescence, the period reflected in the CHS study, was believed to affect performance and behaviour so that size differences created many difficulties for the coach and teacher, "which the exercise science and medical professions have yet to resolve satisfactorily" (Osternig, 1994:14). Greendorfer and Brundage (1987) emphasised that when differences occurred between boys and girls in learning motor skills, teachers and coaches not only accepted them but tended to expect them, an attitude particularly relevant in Singapore where chauvinism still prevails.

For young male athletes, evidence indicated that advanced maturity in early adolescence, from about 10-13 years, with its concomitant size and strength advantages, constituted an asset positively associated with success in several sports (Malina, 1988). However, as adolescence ended, the size and maturity status of young male athletes was of less significance in many sports. There was also important evidence, and this is germane to the SCP, that success in early adolescence for boys, particularly in team games, might not transfer to late adolescence (Malina, 1988). In the case of girls it appeared as though there was delayed biological maturity between athletes and non-athletes, however, much of the data came from individual sports, which were usually more accessible to girls,

rather than team sports. Physical activity did not appear to affect stature as girls got older but was, however, an important factor in the regulation and maintenance of body weight (Klug, 1994). Klug (1994: 27) stated that it was difficult to create an experiment that effectively isolated and evaluated critical variables in "a heterogenous population of subjects who were maturing at exceptionally different rates". This underpins an important premise when evaluating the results of the SCP and attempting to generalise from them to a wider population.

4.3 Characteristics of Social Development

This section builds on the previous review of *The Young Participant* by investigating the relevance of social development for the life of a secondary school-age pupil in Singapore.

4.3.1 Sport Socialisation through the Family

Horton (1993) suggested that children's development can be significantly enhanced from an involvement in sport and physical activity. This 'physical' effect can positively impact upon personal socialisation by teaching children to respect their team-mates who may come from different backgrounds and who may be of a different race (Karch, 1995).

The literature suggested that in Western culture the parents, the school and/or the coach (Hemery, 1986; Byrne, 1993) were the dominant influences in this socialisation process for children. The family (Gilroy, 1993) exerted the earliest and most persistent influence on the sport involvement of the child [see: Gallahue and Ozmun, 1995; Malina, 1988; McPherson and Brown, 1988]. The family first introduced the child socially to physical activity from where the individual moved along the path from play to sport and the school then accepted the responsibility for creating the right type of learning environment (Gilroy, 1993). Many parents became educated in sport through an involvement with their children's activities and through taking pride in their progress (Karch, 1995) and it was their attitudes, beliefs and encouragement which undoubtedly affected the child's experience in sport (Byrne, 1993;

Snyder & Spreitzer, 1989; Rowley, 1993). Many outstanding athletes came from happy, stable families (Hemery, 1986) in which one or both parents had been active in sport themselves (Malina, 1988).

Gallahue and Ozmun (1995) stated that it was the degree of parental encouragement, which served to enhance and maintain a commitment in sport and which was directly related to the level of selection and participation. According to Snyder and Spreitzer (1989) these findings were apparent for both genders, although Fox (1996) suggested that girls were allowed considerably less activity independence than boys. Weiss (1993) suggested that a substantial amount of research had shown that children who had supportive parents, peers, siblings, teachers and coaches were more likely to initiate and continue their participation in sport than individuals for whom this support was much lower. Byrne (1993) indicated three levels of parental involvement: a) the under involved b) the moderately involved and c) the over involved. It must be borne in mind, however, that the peer group was also a dominant influence during childhood, adolescence and early adulthood with respect to the socialisation into physical activity and sport (Greendorfer, 1977). At the commencement of adolescence, the peer group may overrule the influence of the parents, as peer affiliation was the first step towards personal autonomy according to Gallahue and Ozmun (1995). The study will thus examine the role and extent of parental involvement in the SCP from an adolescent perspective.

The results of an International Gallup Poll of 16 countries stated that 'Singaporeans retain traditional views on children' suggesting that parents, even families, showed a preference for boys over girls, in line with other Asian societies featured in the poll (Straits Times, October, 1997). In this regard, internationally there had been an increased provision of highly organised competitive sports for boys below the age of 12, fuelled by the overwhelming support of parents, fathers in particular (Greendorfer, 1992; McPherson & Brown, 1988; Hemery, 1986). Armstrong and Welsman (1997:248) stated that the significance of one parent over another was "unclear and probably varies with age, maturity and gender." Although girls were socialised less into physical activity, for whatever reason "when they do receive support girls may be more responsive"

(Armstrong et al., 1997:248). Both parents were becoming more responsible for determining both the extent and appropriateness of a child's sports participation, regardless of the child's gender. The accompanying introduction of more sporting opportunities and facilities for all young children has been one of the major socio-cultural developments of recent times. Gilroy (1993) thought that sport could be beneficial, providing that children's sport remained for children and not as an avenue for parents and significant others to relive or fulfil their own sporting ambitions through them.

The fact that sporting teams were currently being organised more by age and weight than previously and recent trends such as touch rugby for girls indicated a greater sensitivity to children's development. In this way the organisation of sport was adding a new dimension to the socialisation process by adding opportunities for children to participate. However, Duquin (1988) suggested that youth sport clung to an ideology of gender differences requiring girls to be socialised differently from boys, resulting in separate boys and girls teams of superior and inferior status respectively. Nicholson (1978:66-67), cited by Snyder and Spreitzer (1989), suggested that junior high school girls were also far more likely to have family and friends who were participating in sports than a comparative group of non-athletes, indicating their influence on sports participation with this age-group and gender. Snyder and Spreitzer (1989) indicated that parents of athletes were only slightly more interested in sports than parents of non-athletes. Gender is an important issue for the SCP that requires examination to investigate its significance for a sporting initiative in a Singapore school.

McPherson and Brown (1988) stated that parents appeared to be more influential than older siblings and fathers more than mothers, contradicting earlier research, which suggested that female role models in the family were essential for girls to get involved in sport. Recent research also showed a reciprocity within the family, where participating children in sport had subsequently socialised their parents into involvement in both primary (participant) and secondary (coach, administrator) sport roles (Hasbrook, 1986; Seip, 1987). McPherson (1988), however, indicated a decline in the influence of the family as adolescence approached with the school taking over and playing a more significant role. Children's

values in sport appeared to be shaped largely by parents, as were attitudes towards failure, persistence and commitment and this congruence will be investigated in the study.

Williamson (1996) stated that society placed pressure on boys and girls to behave in certain ways and these behaviours began at home. A lack of activity in the lives of the parents, said Williamson (1996), might also have contributed to their less than supportive role for their children's physical education experiences. She stated, however, that it was the task of teachers to examine the extent to which a more equitable learning environment for all children could be promoted.

4.3.2 Adolescent Sport Participation and Socialisation

The pressure to participate in sport came not from the individual but from the way that society valued and rewarded sport and competition (Gilroy, 1993; Horton, 1993). Sport played a major part in the lives of many children (Lee, 1993; Roberts and Treasure, 1993) and being competent in physical skills was important, particularly for boys (Roberts, 1984). Sport was unquestionably a powerful social institution (Horton, 1993) and humans derived most of their feelings about themselves from how other social groups treated them. Most of the world class athletes in Hemery's study (1986) started out as shy, self-conscious introverts for whom sport provided an avenue through which they became more outgoing and success helped to augment their self-image and reduce their shyness. Team sports particularly, offered people opportunities to handle differences between each other and this was transferable to other settings in life (Thompson, 1993).

Adolescence was also a period marked by changes in social and psychological maturation (Gallahue & Ozmun, 1995) and priorities changed with other things to do (Whitehead, 1993). Alongside the recent extension of collegiate and university commitments, the changing technological nature of society has led to an increased dependence on parents, not only in the USA (Gallahue & Ozmun, 1995), but also in Singapore as it aspired to "developed nation status". There has been a concomitant expansion of organised,

competitive sport for young people (Roberts, 1984; Roberts and Treasure, 1993) that had changed sport itself and some of the negative aspects of adult sport had crept in. As a result of ambitious coaches and misguided parents, children's sport had become serious and work-like (Gilroy, 1993) and had placed young athletes under the aspirations of others, who might not adequately consider their needs (Martens, 1988).

Nevertheless, games and sport were important arenas for the socialisation of children and adolescents in the values of society (Roberts and Treasure, 1993) and being good at sport was a strong asset for peer acceptance (Evans and Roberts, 1987; Rees, 1992; Weiss, 1993). Concepts of co-operation, self-realisation and the individualisation of lifestyle (Evans, Penney and Davis, 1996) now drove young people. The games and sport of the respective culture offered important opportunities for affiliation, self-esteem enhancement, self perception (Fox, 1996; Roberts and Treasure, 1993), responsibility and conformity (Roberts and Treasure, 1993). This cultural socialisation was dependent upon the multi-faceted interaction of the status, roles and norms between the individual and society and was influenced mainly by people, institutions and activities (Gallahue and Ozmun, 1995). However, the current importance of television, computers and video games in the education and leisure of the young represents a counter-productive force to play and physical activity in the modern socialisation process. The self-perception of ability was important to study in order to understand the child within competitive sport (Roberts and Treasure, 1993) and for those children for whom sport played a significant role in how they perceived themselves (Lee, 1993).

Fox (1996) suggested that exercise could also elevate mood and reduce anxiety and that these characteristics were also found in adolescents. Anxiety was part of competition at every level and young athletes needed to know that, as psychological un-preparedness was more often a cause of failure than effort or fitness. Recognising this was probably the most important stage in teaching the young athlete how to control anxiety (Rowley, 1993), however the coach/teacher must recognise that boys and girls respond differently to failure. Rowley (1993) concluded that only one strategy for dealing with failure was inadequate and might increase the chance of anxiety re-occurring.

Just as in Singapore, adolescents participated in sports for group affiliations as well as for skill mastery and opportunities to compete. In fact, Roberts and Treasure (1993) suggested that young people would rather participate in sport than anything else, something that might be very different in the context of the study. Although athletic competence was less valued for female rather than male popularity, boys, and interestingly girls, would prefer to succeed in sport over success in the classroom (Rees, 1992; Roberts and Duda, 1981) and represents another factor to be investigated in the Singapore context. The key to high status was displaying self-confidence through extra-curricular activities and even "brainy nerds" (Rees, 1992:80) were socially acceptable providing they had some athletic affiliation and "dumb jocks" provided that they managed to win. However, these studies were out of date and may no longer hold true, even in the USA. Whitehead (1987, 1993), in contrast, found that, in Britain, schoolwork was a consistently higher priority than success in sport. This was particularly true for girls but these values faded in later adolescence when alternative pastimes such as going out with friends, listening to music and using computers took on a greater significance in their lives. A turning point was reached when young people realised that further improvement in sport would demand too much extra time and energy, given their expanding interests.

Young males also indicated that failing in sports was the most unpleasant situation in which to face failure, although the failure preferences of young females were the opposite (Whitehead, 1993). Roberts and Treasure (1993) suggested that this difference in failure preference indicated how we socialise boys and girls towards different achievement goals. Gender differences are so consistently reflected in the literature that they demand further enquiry in the study.

4.4 Psychological Characteristics of Young People in Sport

This section attempts to identify the major psychological characteristics of adolescent sporting behaviour. The content emerged inductively from the literature as a response to the researcher's formative reflections. Such reading provided the background for the

various tests that measured the effects of the programme on the students. The review of literature identified the constructs that were most relevant for adolescents involved in sport. A brief rationale for their inclusion is outlined to highlight concerns and effects on sport adherence in the study that may contribute some clarification about the levels of self-image.

4.4.1 Self-Esteem

The aspect of self-esteem was a complicated domain but was widely accepted as the best indicator of emotional health and well being, reflecting our own sense of personal importance. Fox (1988:247) added that for many it was seen as a "fundamental objective in a child's education" and "the desirable end-product of our curriculum". It was equally felt that physical activity could develop aspects of self-esteem such as social acceptance and 'character' through positive perceptions of fitness and sport skill, which were more reliable predictors of overall self-esteem than ability (Fox, 1988).

Most schools had consistently identified self-realisation as one of the top three priorities of their programme design (PEA, 1974: 1987) with self-esteem chosen as a valuable curriculum end product for physical education (Fox, 1992). Self esteem, synonymous with self-worth (Martens, 1996), had positive associations with happiness, personal satisfaction, lower anxiety which, Fox (1992) suggested, enabled the student to perform well academically and physically. The Department of Education and Science⁵⁴ (1991) suggested that the aims of physical education should focus on the whole child by fostering self-esteem through the acquisition of physical competence and poise (Fox, 1992). Nevertheless, Fox (1992) considered physical education far too complex and multidimensional to rest its case solely on the development of self-esteem, but the contribution of success and enjoyment to self-worth and future participation were unmistakable for Martens (1996). However, a two-year study of 4,000 teenagers in Singapore concluded that they suffered from low self-esteem caused by living "in a very achievement-oriented education system, which connects personal worth with school

⁵⁴ In the UK, the Department of Education and Science represents only England and Wales.

performance and academic success" (Gasmier, 1992). It is therefore important that this study should investigate the contextual association of self-esteem and sport in an Asian setting.

The way in which young people perceived themselves had a significant effect upon their participation in sport and young athletes needed to feel valued by important adults in their lives. This endorsement added to their feeling of worth and contributed to their self belief with the ultimate sign of an advanced character being self-endorsement, particularly when the athlete was being subjected to criticism (Thompson, 1993). Those with low perceived ability were more likely not to participate (Australian Sports Commission, 1993; Lee, 1993; Weiss et al., 1990) or to drop out (Fox, 1988) as a result of comments and judgements by coaches and teachers. These people were powerful influences in children's self-perception (Lee, 1993; Thompson, 1993) and could assist them by helping to reattribute their failure to factors within their control (Biddle, 1993) and by providing a strong sense of social support (Fox, 1988).

The self-concept was an inner mechanism, which let through some information and excluded or rationalised others and had the effect of maintaining a desirable self- image for the individual. Research has shown that children assessed their competence both in general and in specific physical, social and cognitive skills so that they felt good in sport but not so clever at school or with others (Harter, 1978, 1981). Constructs such as body image and perceived attractiveness, which were related to physical activity, fitness and health were also emerging as powerful determinants of self-esteem from an early age and throughout the lifespan (Fox, 1992). As "the physical appearance dimension, tends to dominate self-esteem, at least in the United States" stated Fox (1988:249), it would be interesting to ascertain whether the same was true in Singapore.

Children responded better when being taught in a manner that did not humiliate and it was not until late adolescence that they were able to differentiate between internal and external cues as to their competence (Lee, 1993). Adolescents, also, were more heavily influenced by the opinions of their peers than by those of adults (Whitehead, 1993).

External sources of information were more important to younger adolescents and less confident children with low self-esteem. In adolescence belonging to a sports team, where sport was considered important, resembled the affiliation to a gang and children who were not so good established a social identity by continuing to attend practice and played a role in assisting the team (Lee, 1993). This aspect needs to be looked at in the study in relation to the pupils who are no longer team players. Adolescents were capable of making more realistic assessments of themselves than children and this maturity enabled them to step into adult sport where team players required a higher level of social maturity than those athletes involved in individual sports (Lee, 1993). This will be more difficult to measure in Singapore, owing to inconsistencies in the involvement of the NSA's in school sport and the commitment to academic studies, when the players leave secondary schools.

Rowley (1993) stated that there were gender differences during the teenage years, where boys were more concerned about the results of their performance leading to rewards like fame and popularity, whereas, girls were more concerned about the quality of their performance and self-satisfaction. In Singapore there is a perception by many adolescent girls that physical activity is trivial and frivolous and should not be taken seriously. Boys, said Rowley (1993), were more depressed by failure, as victory was perceived to be important but took great pains to address the problem, whereas girls, who valued social approval, tended to respond by giving up and attributing their failure to their lack of ability. This led boys to place a higher value on competition than girls (Whitehead, 1993), however, the predominance of competitive team sport in the curriculum, as is the case in Singapore, made it extremely difficult for teachers to help many youngsters experience a sense of personal improvement and fulfilment (Fox, 1992).

Harter produced the Adolescent Self-perception Profile in 1988 to measure the construct of self-esteem. Fox (1988) stated that self-esteem's 'multidimensionality', which considered several constituents and measured them separately, gave a more meaningful summary than other instruments.

4.4.2 Task and Ego Orientation

Sport currently dominates most physical education programmes and a high percentage of children are involved in extra-curricular sports activities. Sport is a relatively free choice activity but an important achievement domain for children. Because of this, high levels of ability created an identity with positive attitudes, values and skills [see: Lee, 1993; Thorpe, 96; Youth Sport Trust, 1994], particularly when fitness rather than skill programmes were used (Gruber, 1986).

Two distinct conceptions of competence were displayed in sports settings: a task involved conception of ability (mastery) which was introspective and assessed personal improvement and an ego involved conception of ability (competitiveness) which was concerned with the performer's competence being judged against others [see: Biddle, 1993; Duda, 1989, 1996; Fox, 1996; Nicholls, 1989, 1992; Roberts and Balague, 1989; Roberts and Treasure, 1993]. The perception of oneself, known as ego, was strengthened through an involvement in sport (Steyn, 1993), in fact the competitive structure of sport evoked ego-involvement (Nicholls, 1980; Vallerand, 1987) and encouraged inter-personal comparisons about success and failure, connecting self-worth directly to performance. Children often displayed maladaptive achievement striving when competitively oriented and so the amount and control of ego involvement was important to prevent personal concerns about winning from overriding fair play and sportsmanship. In this situation, winning at all costs becomes the norm rather than self-improvement (Biddle, 1993). When the motivation behind people's participation was to show that they can outperform others, sport became a tool for self esteem enhancement and was regularly misused to improve the athletes' social reputation and status (Duda, 1989). Winning could become too important, placing too much emphasis on the outcome rather than the process (Martens, 1996), because the outcome was associated with success and failure (Roberts, 1984). When this occurred, the ego could be described as a misplaced desire for power, status and social recognition, thus teacher/coaches, parents and principals must understand what they are doing. For low perceived ability players, high

effort leading to failure clearly exposed their lack of capacity and caused anxiety (Roberts, 1984). Although the latter tended to be those from whom dropouts emerged, as their achievement goal was to demonstrate ability (Ewing, 1981), in the SCP context the achievement goal for most students was focused more on studies than on sport

The ego participants' desire for results produced an obsession whereby the outcomes became the justification, not the process or the task engagement. When athletes viewed themselves with an external perspective they tended to focus on their own negative characteristics, which resulted in increased anxiety (Rowley, 1993; Walling, Duda and Chi, 1992). An excessive outcome and result orientation indicated that sport alienation had already occurred (Steyn, 1993). At this point sport has most probably become overly competitive, work-like and boring and, as a result, has lost its enjoyment (Roberts et al, 1993). There is ample evidence of this in Singapore sport and the study will examine the SCP for similar characteristics.

Task orientation, the antithesis of ego involvement, occurs where the activity and its process of engagement towards learning, personal improvement and ultimately, mastery is seen to be an end in itself, having a higher priority than the respective results (Duda et al., 1995; Nicholls, 1989). Task involvement is valued as contributing to the motivation and self-actualisation of the athlete, who continued to participate in the future (Fox, 1996). Children display adaptive achievement striving when they are task involved [see: Ames, 1984; Duda, 1989; Nicholls, 1992] as mastery is related to higher levels of intrinsic satisfaction in sport for children (Biddle, 1993). This orientation is also related to learning and obtaining social approval and in believing that sport can enhance social responsibility (Roberts & Treasure, 1993). Children express different views of success in accordance with their age, gender and activity and these interpretations influence their enjoyment and behaviour, as to how hard they try and how long they persevere. Whitehead (1993), therefore, recommended that when setting process or mastery goals, children must be given greater satisfaction through plenty of opportunities to play, alongside a defusing of the desire to win.

When a person engaged in an activity to meet a performance standard rather than to enjoy the task itself, ego-involvement prevailed and, in this state, individual perceptions of ability were norm-referenced. Owing to this comparison, there is a greater chance of perceiving oneself to be incompetent at sport and consequently intrinsic motivation is expected to diminish. Task involvement, alternatively, is associated with a reduced probability that people would feel incompetent in sport. The results of Ryan's study (1982) demonstrated that ego-involvement undermined intrinsic motivation relative to task-involvement while Vallerand (1987) concluded that this was largely due to the competitive element. When task involved, subjective success evolves from trying one's best and attempting to improve on past performances and from criteria that are more under the individual's personal control. Conversely, in a state of ego involvement, subjective success in sport is dependent on achieving a positive competitive outcome by beating others. Because demonstrating that one is the best is a consequence of the performance of others as well as external factors like the opponent, the crowd or the referee, such a goal was less self-determining. As there was less personal control over the achievement of ego-involved goals, a negative relationship between ego-involvement and intrinsic motivation is expected. Fox et al. (1994) stated that a moderate association had emerged between task orientation and the belief that success resulted from high effort and collaboration with peers, adding that sports involvement ought to result in greater co-operation, mastery and sportsmanlike behaviour when this approach was adopted. On the other hand, Fox (1994:254) suggested that ego-involvement had been linked to "a tendency to legitimise intentionally injurious acts in sport competition". Such findings have led to strong support for the promotion of task-orientation and a de-emphasis of ego-orientation in school and sports coaching environments. To downplay the outcome orientation, reduce competitive anxiety and nurture confidence and self-esteem, sport coaches in some leagues in the USA are compelled to play all members of their squad during a game (Klug, 1994). Although this outcome regulation is not enforced in Singapore, the study will investigate the coaches' approaches to task and ego orientations.

Fox (1994) stated that it may be equally possible to have the capacity to be high or low in both task and ego profiles. Since these two orientations had clearly demonstrated that

they had different cognitive and motivational implications, their combined impact could be rather different from their separate effect. By late childhood, youngsters were sufficiently advanced in their cognitive capacities to adopt both task and ego orientations (Nicholls, 1989). Fox et al. (1994) found that it was the group of children, who were both highly task and ego oriented that appeared to be more motivated in sport. Children who had weakly defined ego and task goals were the least motivated in sport, reinforcing the point that children had to be willing participants.

Having conducted considerable research in the area of motivation, Duda (1989) modified the academic Task and Ego Orientation Questionnaire of Nicholls (1989) to be sport specific. The Task and Ego Orientation in Sport Questionnaire (TEOSQ) was developed from a goal-perspective presumption that a task involved perspective should foster intrinsic motivation while an ego involved perspective should be more likely to lead to decreased intrinsic motivation. Goal-perspective theory tested the prediction of cognitive, affective and behavioural responses in sport settings and held that personal goals influenced how people thought, felt and acted in achievement situations, such as sport, which identified subsequent behaviour in that domain.

Results of Duda's TEOSQ and her Purpose of Sport Questionnaire indicated that a conceptually consistent relationship existed between athletes' goal perspectives and their views concerning the purpose of sport. If a 'what's in it for me?' attitude was accepted, or even promoted, then an ego orientation was best. However, if the school sport professionals wished to shape the experience by encouraging young people to try their best, co-operate and obey the rules, then a task orientation would be more appropriate (Duda, 1989).

Studies by Ames and Archer (1988) and Deci and Ryan (1985) implied that a task involving learning climate could promote greater intrinsic motivation. In consideration of the function of accreditation in the Singapore meritocracy, it will be important to investigate the range of task and ego involvement at CHS and the differences that exist between the two populations, if any.

Seifriz, Duda & Chi (1992) determined the relationship of the perceived motivational climate to indices of intrinsic motivation among high school male basketball players. The findings suggested that these athletes could distinguish between task and ego involving team climates. The task environment was characterised by an emphasis on trying hard, personal improvement and working on weaknesses, and a sense that everyone had an important role on the team. In contrast, perceived rivalry between teammates, limited recognition from the coach and a fear of making mistakes laid the basis for perceptions of an ego-involving motivational climate. Seifriz (1992) found perceptions of a task involving goal structure or team climate to relate to greater reported enjoyment of basketball. As this relationship held regardless of the win/loss record of the team, this information can be used as a comparison in the study and examined for gender differences.

It can be argued that intrinsically motivated athletes would tend to be more satisfied with being part of their team and less likely to be anxious about performing poorly. Subjects, in a study by Walling, Duda and Chi (1992), were involved in a number of sports and as predicted, perceptions of a task-involving motivational climate were linked to greater satisfaction. In contrast those athletes who found their team atmosphere to be more ego involving tended to report greater anxiety concerning the adequacy of their performance. The study will examine the level of performance anxiety in relation to the three sports in the SCP and will investigate the reasons (attributions) given by the pupils for success and failure in sport.

Attributions for success and failure could be internal or external in such a way that success was internalised (brought about personally), giving a good feeling (Biddle, 1993). When losing and failure was due to a mixture of external factors, which were often unrelated to people personally, losing became more acceptable. Those players with an ego-orientation, believing that success was attributable to ability, would make ability attributions whereas those with a task orientation would make attributions based on effort (Roberts, 1984; Biddle, 1993). Team players tended to take personal credit for success and blame other factors for failure, while losers did more attribution thinking than

winner. Biddle (1993) recommended a task orientation to help sustain self-confidence and to stabilise emotions brought about by attributions. Rowley (1993) said that many of the emotional problems, which occurred during a sporting performance, were likely instigated in the home, as sport became a mirror image of family life.

Wanting to win was not wrong, but winning should be used as a source of further motivation. A balance of ego and task orientation was, therefore, considered to be most beneficial to the athlete and thus will be investigated in the study but when the ego desire for outcome outstripped the desire for task engagement the participant's attention was neutralised. This was recognised as one of the biggest problems facing the adolescent sports participant (Steyn, 1993). Outcome-directedness increased anxiety so that good results added to the stress for both participants and spectators, because it developed higher expectations of victory and so became a force, which was counter productive. The athletes' ability to cope with stress depended to a large extent on the individual's personality, gender, intelligence, school achievement and the encouragement of the parent or coach or alternatively, the lack of it (Rowley, 1993). Highly competitive, goal-oriented children, boys more than girls (Buchan and Roberts, 1991), were the ones most likely to give up and drop out (Ewing, 1981) and this will be investigated in the study by examining the nature of the drop-outs.

Both ego and task orientations were present in every sport participant, therefore parents, teachers and coaches had to pay more attention to the motivational climate of task engagement rather than outcome objectives, without "removing competition from sport" (Roberts and Treasure, 1993:13). Sport identification could be kept healthy if the winning factor was redefined as a striving for self-knowledge, personal excellence and self-actualisation and then the process could be fulfilling (Steyn, 1993).

4.4.3 Intrinsic Motivation

Sport is intrinsically satisfying, giving tactile as well as emotional satisfaction and provides one of the few opportunities for children to work together as a team (Thompson, 1993). Thus measures to identify the extent to which the pupils in the SCP are intrinsically or extrinsically motivated are important. McAuley, Duncan and Tammen (1989) developed Ryan's (1982) inventory to more accurately measure intrinsic motivation, as to why so many people engaged in vigorous physical activity, suffering pain, exhaustion and sometimes injury for no apparent rewards other than the joy and satisfaction of participation. They designed the Intrinsic Motivation Inventory (IMI)⁵⁵, because the motivational underpinnings of sport participation were diverse and complicated, necessitating the accurate measurement of such constructs as intrinsic motivation. The IMI represented a promising advance in the assessment of this construct. Their findings suggested that the measure was a step in the right direction, but that replications, modifications and further validations of Ryan's (1982) instrument would hopefully lead to a more accurate assessment and, consequently, understanding of intrinsic motivation.

Vallerand, who had worked with Ryan in earlier studies, Pelletier, Fortier, Tuson, Briere, Blais (1995) produced a stronger inventory for intrinsic motivation, named 'The Sports Motivation Scale' (SMS)⁵⁶. The scale compared seven variables on a continuum ranging from amotivation through three intrinsic categories to three extrinsic categories on a seven point Likert scale.

⁵⁵ An 18-item inventory, measuring 4 factors: interest-enjoyment, perceived competence, effort-importance and tension-pressure).

⁵⁶ The seven categories are: Amotivation: feelings of incompetence and lack of control. When an athlete is neither intrinsically nor extrinsically motivated. In such a state of mind athletes can no longer identify good reasons why they train and eventually may stop practising altogether. External regulation: behaviour that is controlled by external sources such as material rewards or constraints imposed by others. Introjection: behaviours that are reinforced through internal pressures such as guilt or anxiety. External Identification: behaviour that is valued and judged to be important as a part of their growth and development as a person. Intrinsic motivation to know: the pleasure of learning, exploring or trying to understand something new. Intrinsic motivation towards accomplishment: the pleasure and satisfaction of accomplishing or creating something. Intrinsic motivation to experience stimulation: engagement in an activity to experience exciting and stimulating sensations.

Although this inventory was originally developed in French, the English version was found to be both valid and reliable (mean Cronbach alpha values = .75). Additionally, contrary to other instruments, the SMS assessed the variables on an independent basis. Theoretically, this allowed for a finer analysis of motivational forces and this led to better discriminant, as well as predictive, validity. Implicit in the literature was the assumption that intrinsic motivation and self-determination were advantageous in sports. Apparently, when people were intrinsically motivated and self-determined, they were more fully involved in the activity itself and therefore displayed better performance. It had been shown that self-determined goal setting led to enhanced performance relative to imposed goal setting. Research also revealed that, when extrinsically motivated, people generally did the minimum work that would allow them to receive the reward, avoid the punishment or defeat an opponent. Thus, low levels of self-determination created a passive condition, such that the behaviour would occur only when the environment stimulated the individual. There is, however, little evidence that links intrinsic motivation and self-determination to athletic performance. The difference between highly successful athletes and less successful athletes, said Rowley (1993) was their ability to focus and concentrate on the task at hand without distractions, but it was the intensity of training that finally made the difference (Hemery, 1986).

The attitudes and motivations of the parents and coach, the attitude of the athletes themselves and overtraining and staleness were three causes of performance anxiety in children's sport (Rowley, 1993). He added that athletes with a high level of anxiety often displayed poor self-confidence and low self-worth to an extent that the anxiety became self-perpetuating and the performances mediocre.

Anxiety was most prevalent during mid-adolescence when national examinations occurred and the athlete experienced a conflict between schoolwork and training (Rowley, 1993). In 1992, The Training of Young Athletes Study (TOYA) found that a quarter (25%) of athletes who retired from sport in the United Kingdom did so because of the pressure of schoolwork (Rowley, 1993). It is important to establish how well the SCP can balance this pressure.

4.4.4 Goal Setting

Duda (1993) suggested that personal goals were a crucial organising principle, which assisted individuals' interpretation of and psychological and behavioural responses to the domain of athletic achievement. Thorpe (1993) thought that the attainment of sporting goals for young people should not be so significant that their success and failure affected the individual's whole self-esteem. Long term motivation was best enhanced when intrinsic incentives were utilised and the training was self-directed. Goal setting was one of the tasks that the coach could pass on to his athletes but was only effective when well planned and designed for the individual youngster (Thorpe, 1993). There was a danger that over-imposing goals on children's participation would detract from the experience and stifle future participation (Martens, 1996). Goal setting was more effective when the individual had set the target, as there was more incentive when the goal was personal and came from within. When the goal was someone else's the child will work at it only to a degree that was necessary to satisfy someone else, not to the point of achieving excellence (Thompson, 1993). The study should identify if there are goal-setting strategies employed by the SCP' pupils and also identify their source.

The necessity for good results, particularly by parents, in North American sports culture has led to a win-at-all-costs mentality for some children that has succeeded in damaging their performance, achievement and self-esteem as the aspirants were getting younger and younger (Porter, 1996). This all too often placed enormous pressure on children to win, for example in tennis, as this is their naïve perception of improvement and success. Porter (1996) suggested an intermediate phase of goal setting in which performance goals, over which the individual has control, becomes the focus of the child's attention. As a result the young performer began to value the quality of his performance rather than solely the result. This allowed players to lose and still feel good about themselves, by controlling the things they had control over. Winning need not mean coming first but redirecting emphasis towards achievement goals, for example a personal best, playing a particular stroke or marking an opponent well, made every child a winner (Rowley, 1993). Goal setting will be an important ingredient to investigate in the CHS study

because there are many examples in Singapore sport where athletes, although training indefinitely at low levels of engagement, appear to be coach dependent.

4.5 The Management and Culture of Innovation

This section sets out to explore the management features underpinning an innovation, identify the key players and the characteristics that were necessary for successful implementation. The Asian setting created a need to review the role of culture as defined in the literature.

4.5.1 Management

Johnson and Scholes (1989) defined two different models of management from a corporate perspective, which can be readily applied to the school environment:

1. where the dominant strategy is conservative, safe and focused on traditional solutions; and
2. where the management is more concerned with innovation and breaking new ground.

The beliefs underpinning these structures were also very different, with the more stable, conservative model having as its priority the securing, maintenance and improvement of its niche within the market, whereas the more volatile, innovative model had a greater potential but an unproven record. There are therefore greater risks attached to innovative practice, which may result in greater pressure and tension in securing positive development. The educational system in Singapore can be described as more closely aligned with the conservative model.

4.5.2 The Influence of Culture

For the successful interpretation of any phenomenon a basic knowledge of the encompassing culture and its influence underpins a complete understanding, particularly in a multicultural Asian setting. The term culture is regularly used as a synonym for the climate,

environment, or circumstances in which an event occurs, often lacking succinct detail, whilst simultaneously representing a complex web of meanings. Rees (1992) had similar opinions to Sparkes (1991:10) who described culture, as "a tool kit of symbols, stories, rituals and world views which people may use in numerous configurations to solve different kinds of problems." Physical culture, a synonym for sport, was an integral element of society (Coakley, 1986; Karch, 1995) and Hargreaves (1986) described it as a primary constituent of the power web. Physical culture, made up of sport, physical recreation and exercise (Kirk, 1996) is currently fashioned by the outcome of the latest socio-economic conditions and has witnessed massive shifts recently. However, it has always had as its *raison d'être* the perfection of physical efficiency and, in the broadest sense, the preservation and strengthening of health and fitness. From a school perspective Evans and Davies (1988:2) saw physical education as:

a social construct, a selection from culture, which contains explicit and implicit values about appropriate missions, goals and objectives.....Values, assumptions and definitions held by individuals both within the profession and outside it influence, guide, facilitate and constrain the work of teachers and shape their and pupils' identities and practices.

Physical culture and sport were now widely accepted parts of an all-round formation of personality (Erbach, 1969), were more highly valued and were practised by growing numbers of people. Sage (1988) commented that organised sports had attained overwhelming status in the U.S.A. as a popular core cultural activity and with "5.5 million schoolchildren participating in inter-scholastic sport" alone (Houlihan, 1997:253), youth sport programmes represented the largest group of individuals (Osternig, 1994). Nevertheless, Osternig (1994:11) pointed out that "the recent tremendous growth of children's participation in organised sport has.....outpaced our efforts to clearly understand the consequences of intense physical activity on the developing young adult." The importance of sport therefore, as a "sub-category of physical activity" (Armstrong and Welsman, 1997:100) had already achieved the status of a "social institution" (Horton, 1993:3). Although, in an Asian setting, the meaning of physical culture or 'sport and

physical education' is developing, it is more tenuous and perhaps geographically, more diverse.

4.5.3 Educational Culture

The beliefs, standards and values that are held by the management give rise to a 'culture' - the dominant mode for corporate behaviour, for making and taking decisions that are evident throughout the organisation. In educational terms 'culture' refers to "school effectiveness" (Ubben & Hughes, 1987:17) where administrators, staff and students are encouraged to develop robust 'cultures' as a means of establishing excellence; one of the goals of the SCP. The 'culture' of an organisation or system therefore produces a recipe for the development of a product, such as education, that is based on previous knowledge and experience. However, systems are incapable of making decisions by themselves; decisions are made by persons, who are party to the prevailing or dominant culture. Sparkes (1991:8) suggested that it was the cultural context of the school, which provided the possibilities and set the limitations for this process of change. He added that teachers were not passive in this process but were "active in defining and redefining their circumstances within it."

Education is a process of enhancement, inclusion and participation that passes on cultural values and identifies meaning for them through the medium of social interaction. As the role of sport develops within school programmes so does its power for the good transmission of values and, through its rituals, becomes an integrated part of the school culture, alongside streaming, grading and examinations (Rees, 1992). The school physical education programme represents a sub-culture of the education setting with its own values and practices (Evans, Penney and Davies, 1996) but as part of the educational system, both curricular and extra-curricular components must have positive educational value (Wiren, 1994).

Thus the values and practices of sport produce a cultural socialisation. This refers to the modification of an individual's behaviour to conform to the expectations of a group (Gallahue and Ozmun, 1995). Sage (1986:431) defined cultural socialisation as "the

process by which persons learn the skills, attitudes, values and behaviours that enable them to participate as members of the society in which they live". Almond (1996:190) referred to these elements as "cultural practices of significance" identifying them as a significant part of human heritage and cultural life. Therefore as sport takes on a more central role in the life of the 'SCP', its culture, rituals and practices will attract more meaning, have greater social significance and gradually, but continuously, influence the wider school culture. Once sport becomes accepted and the innovation has been established the process becomes legitimised, internally at least.

Ethnicity, race and religion, all relevant to the study, also influence the socialisation process by virtue of the opportunities that certain groups can provide for their members and by the prevailing behaviours, values and norms that are found within specific sub-cultures (McPherson and Brown, 1988). Snyder and Sprytzer (1989) add that the expected behaviour associated with one's gender is learned as a part of the culture, and thus it feels appropriate and normal, as is undoubtedly the case for race, language and religion.

4.5.4 Innovation or Change

No major curriculum innovation was reported by 38% of Principals in a study of 58 effective schools in Singapore (Ho, 1993) and neither sport nor physical education was one of the changes highlighted. When considering the SCP as "new or original practice" one cannot automatically assume that genuine change actually takes place and it should be viewed as a process and not as an end product (Kirk, 1988:83). Sparkes (1991:1) distinguished between "real and superficial" change and suggested that many modifications are superficial, where essentially little has altered, but, nevertheless, the innovation gains legitimacy. To emphasise the point Sparkes (1988:2) cited Ruddock (1986:6), who said "all too often the new content is conveyed in the baggage of traditional pedagogy." This situation may simply refer to a style of problem solving rather than an innovation per se. The centrality of the innovator, in the case of the SCP the Principal, playing an active role was emphasised as important in the process of

effective change. Through an understanding of the critical balance between the ability to create conditions and the constraints that restrict options, the cultural perspective recognised that conditions can be changed, when the influence of key personnel and the need for change was powerful enough.

Sparkes (1991:7) discussed the role of the "ecological" perspective, which focused on change in the school environment rather than on the personalities who were involved in the process. This approach has been closely connected with studies investigating the working conditions, in which these innovations are implemented and thus has a particular relevance for this study. The significance of a principal's philosophy, influence and understanding of management has been found to be a key factor in the development and maintenance of 'excellent' schools [see: Beare et al. 1989; Block, 1983; Bloomberg & Greenfield, 1986] as well as in the "management of change" (Sparkes, 1991:7).

4.6 Sport and Excellence

This section explores the notion of excellence in a sporting context and reflects on excellence as a constituent policy of a national ideology, relating this to the world of sport. It is well known that for some considerable time other nations have addressed sports excellence and a search of their findings will be useful for comparing the initiative and examining its success.

4.6.1 Excellence as an Aspect of National Ideology

The notion of excellence pervades the life of every Singaporean as the concept has been adopted to service the country's development, for not only the present but more importantly, the future. As such, excellence has taken on the shape of an ideology - a system of ideas, beliefs, values about social reality (Tinning, 1990), a form of consciousness, which permeates common sense assumptions (Gibson, 1986) and something that was not merely present inside peoples' heads but was lived through in various everyday practices (Kirk, 1988). Excellence in sport, equally, must have

beginnings and must be evaluated against relative standards at source, within the school, within the education system, within society before comparisons are made with alternative models or systems.

In Ho's (1993) study, there were two incidental references to sport in the whole document and none about physical education whatsoever, highlighting the insignificance of this domain in the educational culture. For Principals, the most important facilities in the school were identified as libraries, computer labs and audio-visual resources and one of the reasons for the outstanding success of the educational system was attributed to the dedication, motivation and conscientiousness of its staff.

4.6.2 International Schemes for Sports Excellence

Sport has become so powerful as an international status symbol that schemes for sports excellence, on which there is substantial commentary, [see: Australian Sports Commission, 1993; Calhoun, 1987; Fisher, 1996; Hardman, 1992; The Sports Council, 1993; et al.] have been institutionalised to achieve this goal. Karch (1995) stated that sport was so central to the current global picture that diplomatic relations were often initiated and developed on sports fields or golf courses around the world. Medal winning sport also supported powerful national ideologies created through successful and sophisticated systems of training and development. Many countries, particularly the former eastern bloc, had recognised the importance of identifying talent early and developed sophisticated systems, networks and Centres of Excellence for the specialised training of young children. However, after World War II, these 'sports schools' became infamous for the excessive behaviour of their sport coaches, with their administrators and sport scientists using draconian practices to promote political ideologies (Horton, 1993). It was difficult to forge social change, when it is claimed that, even now, parents are sending sons and daughters to while away their childhood in dehumanising sweat factories, euphemistically called "national sports institutes" (Booth, 1996:15).

The literature suggests that most of these elite sports institutions focused on young children and became part of the educational structure in their respective countries. Even in countries where these centres did not exist, education was still identified as a key part of the process from foundation to excellence (Sports Council, 1993). This process linked in well with the thrust of the National Curriculum for Physical Education in England and Wales. These Centres of Excellence⁵⁷ have made a plethora of sports⁵⁸ accessible to everyone irrespective of income. This is because there was political advantage to be gained from significant success in the international arena (Treadwell, 1987). In China, however, sport schools reflected more a picture of mass culture than one of competitive mastery (Calhoun, 1987) but this picture may have changed considerably in the last ten years or so, as China has become more capitalist.

The rationale for sport schools is embodied in the provision of opportunity to combine sport and education in one setting; a setting which could and should make allowances for the pursuit of both goals in a more balanced manner.

Hardman, 1992:39.

It was through this rationale that the Principal of CHS was influenced to embark on the SCP. Raine (1987) pointed out that sports excellence did not come cheap and in spite of lots of money being invested in schemes, such as the Canadian coaching scheme, the West German Track and Field scheme and the Australian Institute of Sport, the results had not been overly successful. The USSR and GDR schemes used a pyramid or filtering system and were perhaps the best examples of talent identification, development and refinement, where the foundation of excellence was physical education in the schools, coupled with mass participation. The GDR had collected data on children over 20 years through a screening process at six, eight and ten years of age and this had provided clear performance norms for the identification of potential champions (Fisher, 1996). Brettschneider (1992) estimated that almost three-quarters (70%) of children in sport schools fell behind and as a result were transferred back into the general school system. This type and scale of attrition is relevant for comparison within this study.

⁵⁷ Centres of Sporting Excellence are found everywhere in the international sporting world, including Australia, Canada, Czechoslovakia, France, Holland and Sweden, to name but a few.

⁵⁸ Featured sports include: gymnastics, swimming, soccer, golf and athletics and many more.

Horton (1993) stated that the Japanese exhibited an intense level of extra-curricular sporting involvement and rivalry in their high school programmes without detrimental evidence on their school achievement, indicating that there was little need to drop sport from the curriculum. Treadwell (1987) noted that up to 1987 Britain had no centralised approach to sporting excellence through educational institutions other than through the independent school system, which was private and fee paying. Two such schools, Kelly College and Millfield were identified by Fisher (1996) as examples, which proved convincingly that pupils can excel in sport as well as scholarship (Martin, 1994), whilst retaining a balanced lifestyle and without sacrificing their entitlement to a childhood. Teaching staff were recruited to Millfield, firstly on the basis of their academic qualifications and secondly on the calibre of their coaching accreditation and these were success factors that may be worth investigating in the CHS model.

The TOYA (1992) study indicated that neither childhood nor adolescence need necessarily be sacrificed as a result of involvement in elite sport, although the problem could emerge if not properly managed. Another finding from TOYA was that 'burn-out' did exist but was not considered to be of much significance. Brettschneider (1992) highlighted the value of a range of sporting experiences in a youngster's lifestyle, something that appeared to be lacking at this stage in the SCP structure.

In Britain, the current exceptions to the educational models were the Centres of Excellence for soccer organised by almost every football league club (Pickerin, 1994). Spearheading this initiative was the Football Association (FA) School of Excellence at Lilleshall for the best young soccer players in the country. Pickerin (1994) stated that, in a similar way to other international schemes, the FA had learned a lot about the selection and identification of young players and now used different criteria for selecting and training the stars of tomorrow. One of the FA's main concerns had been the excessive amount of competition faced by young footballers, which accounted for an annual loss of about 10% of the best talent in the country. This meant that young hopefuls might be playing as much as 180 competitive matches a season with the inevitable spate of overuse injuries. To alleviate this problem the FA licensed these young players and contracted

not only them but also the clubs they played for, to a maximum of 60 competitive games a season. In the USA, Klug (1994) stated that rules, introduced in softball, limited the quantity of pitching in youth games, but the problems actually arose during practice. Klug (1994) added that:

the physical demands of high level competition can expose children to a greater risk of injuries that can have lifelong consequences. These physiological observations may represent only one concern linked to the explosion in popularity of organised children's sports, as the manifestations of repetitive stress and the anxiety of competition are only beginning to get attention.

p. 27-28.

From this perspective the study will examine the selection procedures for the SCP and will investigate the competitive exposure of the players as well as the levels and types of injuries experienced.

The National Coaching Foundation (NCF), concerned about the lack of provision for developing talent, designed the 'Champion Coaching' scheme, which was aimed at children, aged 11-14, who were not receiving coaching at a performance or excellence level. Fisher (1996) stated that it proved to be very popular with the numbers of children engaged in the programme rising from 6,000 in 1991 to 150,000 in 1994 in 76 different sports involving over 4,000 coaches. Through a recognition of the different skills of physical education teachers and coaches, the new development structure offered an integrated school and club programme (Gummerson, 1992), something similar to the CHS model. In this structure the school would facilitate the introduction to various sports and teach basic skills and co-ordination and the clubs would offer the opportunity for specialisation. Together, an integration of the skills and expertise of teachers and coaches provided the best teaching and learning environment for all interested individuals and produced a mutually beneficial relationship between sport and physical education (Gummerson, 1992). The study will examine this liaison in the Singapore context through the school's relationship with the NSAs.

Thompson's (1993) study of Golf Schools in Sweden found that students' academic attainment was initially affected by their immersion in golf, however minor adjustments were facilitated that supported the young golfers and the balance between education and high performance sport was protected. Thompson also suggested that the character and the commitment of the 'director', the key administrator, was extremely important for the success of the programme and the well being of the athletes. Thus indicating a need to carefully interpret the involvement of the Principal at CHS in the evaluation of the SCP.

Campbell (1992) stated that talent development depended on competitive structures, a willingness to train, recovery capacity, training facilities and effective coaching. In the knowledge that sport had made a strong commitment to schoolchildren the British Council of Physical Education, the NCF and the Sports Council had combined to improve what was available. As in Singapore, the British government's attitude to sport in schools has changed in recent years and they too are concerned about winners and medals. In conjunction with the national governing bodies they: a) identified children as a target group, b) produced a valuable teaching resource for primary schools through Read and Edwards (1992) and c) included children's growth and development material in the certification and accreditation of coaches (Thorpe, 1996). This content, according to Lee (1993), was based on the American Coach Effectiveness Programme.

4.6.3 The Influence of Sport on Physical Education

There was a professional obligation, according to Karch (1995) to ensure that today's societies derived the benefits from physical activities that have been known for thousands of years. In Asia, the content of physical education had been developed based largely on fighting skills, military training, ritual ceremony and on the combat spirit of soldiers. Karch (1995) stated that ancient principles of education, based on Buddhism and Confucianism, were taught and a philosophy provided, which attempted to improve morality, personality and virtues such as honesty, respect, courage and righteousness. The social awareness of the values of sport, he thought, came from the transition towards democracy in the 1960s.

Physical education, on most continents, was perceived as marginal to the main objective of schooling and to sport in the culture generally (Crum, 1993). Nevertheless, traditional expectations were that physical education would provide children with a foundation of basic skills, understandings and attitudes to engage in lifetime sports from which community and private sector sport activities, leisure and fitness programmes would develop (Corbett, 1995). Sport, as a significant component of our world culture and the cornerstone of physical education, occupied a critical role in determining the health and vitality of every nation (Corbett, 1995). However, sport's competitive nature served as a dysfunctional feature for many physical educators in many programmes (Horton, 1993²; Orlick, 1978; Thorpe and Bunker, 1983).

As an invented tradition of the 19th Century, sport built 'character' through the ritual of compulsory games (Rees, 1992). Middle class values were taught (Corbett, 1995) developed (Duda, 1989) and considered sacred (Rees, 1992). Sport was used to channel the energy and enthusiasm of young people into the culture of the school often at the expense of educational values. Rees (1992) suggested that character development in America was demonstrated through winning, as this represented a form of moral superiority. Coakley (1986) saw the functionalist perspective of the Olympic Games adding to this 'character development' through amateurism, whilst promoting a sense of nationalism (Rees, 1992). Slogans like 'winners never quit, quitters never win' emphasised the sport-value systems that were used in the moulding of young North American minds.

As a result of this ideology qualities like hard work and dedication became the responsibility of the physical education professionals within the curriculum and were enhanced through inter-scholastic sport, where victory gave the school an identity, a moral superiority, which was shared by all members of the school. Sport, therefore, became important in peer group formation, as values of high status and identity were transmitted to the players through success (Rees, 1992). These values, he added, were also used as a means of sustaining loyalty to the institution and consequently sport became justified as a code for harnessing school unity with the athletes portrayed as

moral heroes. Rees (1992) added that the respectability of school sport was violated however, when the ends began to justify the means and the 'winning is all' mentality altered the rituals to fit the cause, by inventing new traditions.

Recently, the assumption about school sport developing personality characteristics has been challenged (Duda, 1989; McKay, 1991; Stevenson, 1975, 1985) on the grounds that it did not, but rather sport selected those who already displayed those characteristics for continued participation (Corbett, 1995; Osternig, 1994). On the contrary, it has been found that when elite athletes, particularly males, are involved at intense levels of competitive sport, there is a likelihood of lower levels of sportsmanship, altruism, ethical maturity, as well as higher levels of aggression, when compared to their non-athletic peers (Duda, 1989; Fraleigh, 1995; Horton, 1993²). Sportsmanship and aggression present topics for further investigation in the study to ascertain whether there is evidence of this occurring, whether it is a requirement of the SCP and how it is managed.

Sport, as an institutionalised form (Roberts, 1984) of higher ludic activity (Corbett, 1995; Crum, 1993), philosophically speaking, had close affinities with play (Huizinga, 1949), which, in its absolute form, supported the development of culture in which human excellences were displayed (Kretchmar, 1992).

If sport is a higher form of play and if good sport is important to the health and vitality of the culture, then sport should be the subject matter of physical education. The development of good sports persons and the development of a better sports culture should be central to the mission of physical education.

Siedentop, Mand & Taggart, 1986:188-189.

However, sport was generally perceived as being performance related (Bailey, 1992) with an emphasis on achievement (Sparkes, 1988; Tinning, 1990) whereas physical education was more of a process orientation, "grounded in the Aristotelian notion of harmonious balance" thought Hardman (1995:5) with the consideration focused on the development of the child. Physical education should offer every pupil the opportunity to develop a broad base of motor skills on which to build future specialisation, said Gummerson (1992). Sport was highly valued by children, reported Roberts and Treasure (1993), and

according to the Youth Sport Trust (1994) played a vital role in the psycho-social development and education of children. As a result, there had been a deluge of structured age-group competitions (Lee, 1993; Roberts, 1984), so much so that there was a risk that sport, and even one particular sport could dominate the curriculum (Thorpe, 1996), which Hardman (1995) said would endanger the status and essence of physical education.

In North America, physical education was not even compulsory in many states. Neither was it standardised, in such a way that all children participated in physical education programmes in the high school (Hardman, 1995). In spite of the fact that performance sport existed at all levels (Campbell, 1992), the school curriculum was still the only opportunity where children were guaranteed a physical education, with extra-curricular provision being the pillar around which other initiatives revolved (Thorpe, 1996). Sport activities could promote the educational objectives of physical education (Corbett, 1995) to espouse a more co-operative approach (Nixon and Jewett, 1980) of an 'equalitarian' ideology (Horton, 1993), although this did not appear to be the case in many programmes.

4.7 Physical Education

The world of Physical Education has recently appeared to be in crisis (Evans, 1986; Evans and Davis, 1996; Kirk, 1996). Alternative solutions to the current problems that beset the discipline have to be found and innovation and change are seen to be necessary.

4.7.1 The Status of Physical Education

The professional domain of physical education in its many forms was undeniably complex. Horton (1993) reflected that it was not valued in the curriculum as highly as academic studies by either the profession or the authorities. As competition for curriculum time increased physical education appeared to Hardman (1995) to be a victim and consequently "continuously undermined...and undervalued as compared to other curriculum areas considered to be of a more academic nature" (Almond and McGeorge, 1998:8), particularly in the primary school sector. Almond et al. (1998) stated that this

occurred in spite of the evidence, which suggested that academic performance could actually be improved by increased physical education, with this improvement persisting into adult life.

Physical education also became somewhat unstable as it became marginalised by pressure groups with an interest in sport and fitness. The self-reproducing failure of physical education (Crum, 1993; Sparkes et al., 1991) was, and still is, compounded by the fact that there was no single, international delivery system for the subject, as the 'politico-ideological, socio-cultural, economic values and ecological' settings were so completely different (Hardman, 1992:5). At a time when sport and fitness appeared to be more popular than ever and billions of dollars were being spent on international sport, the apparent 'malaise' of physical education was both annoying and disturbing to Crum (1993) and a serious cause for concern (Hardman, 1992; Kirk, 1996). The Australian Sport Education project findings supported the belief that it may have been dysfunctional programme structures that caused the decline in physical education, rather than deficiencies in teaching skills (Alexander, Taggart and Thorpe, 1996; Locke, 1992). When teachers and coaches focused too much on skills (*the reductionist approach*), they were often guilty of removing the enjoyment of participation (Martens, 1996), which led to a lack of creativity and spontaneity in physical education in Britain (Evans and Davies, 1996).

Smith (1991) suggested that the muscular moralists of the 50s and 60s were responsible for impeding the progress of physical education and sport by neglecting to conduct research that would have enhanced athletic performance and were simultaneously failing to get people fit. The last 20 years, in contrast, have seen a proliferation of 'scientization' where the sub-disciplines of exercise-physiology, sport-psychology and bio-mechanics have made significant contributions to sporting excellence and this had unequivocally redirected the focus within physical education; some would argue, detrimentally.

It was therefore not surprising that physical education was perceived to have been in crisis (Evans, 1986; Evans, Penney and Davies, 1996; Kirk, 1996). It attracted criticism

because the majority of lessons failed to achieve their educational objectives (Locke, 1992) and physical education programmes, characterised by the smorgasbord curriculum (Tinning and Fitzclarence, 1992) failed to achieve professional standards (Martens, 1996) or much in the way of success and quality. Alexander (1996) thought that the dominant model of physical education for teachers in school did not relate very well to what these teachers had learnt at university. Physical education practices had the effect of dampening enthusiasm through a range of negative experiences, which had turned pupils off, rather than on and was identified more through a lack of excellence (Knoppers, 1988; Martens, 1996; Seefeldt, 1988). Physical Education had become boring and irrelevant to many that were living in a post-modern youth culture outside of school and who, ironically, valued physical activity as part of their lifestyle (Tinning and Fitzclarence, 1992). Kirk (1996) suggested that physical education had failed to reproduce the excitement of modern 'communities of practice' like bungy jumping, sky diving and white water rafting that were prevalent and popular in a modern physical culture.

Postmodernism according to Henry Giroux (1990) is an intellectual position, a form of cultural criticism and a response to an emerging set of social, cultural and economic conditions that characterise an age of global capitalism and individualism.

Tinning and Fitzclarence, 1992:297.

The continued decline in participation in the post school years suggested that physical education was in fact not educating people to stay fit for life, according to Gilroy (1993). Karch (1995) painted a discouraging picture of a modern less-active youth who had poor self-image, inadequate nutrition, high drop out rates and had increased their levels of smoking, violence and crime. Browne (1992) found also that the main reason Australian students did not elect to take physical education classes was because it was not relevant to their career plans: a similar reason explains why sport takes a back-seat in Singapore. Internationally millions of children had been adversely socialised as a consequence of physical education and sport experiences failing to deliver relevant needs for their clients (Horton, 1993; Orlick and Boterill, 1975).

McKay (1991) stated that Australian physical education professionals were guilty of legitimising an ideology of technocratic physical education, which reduced content knowledge and personal development to the level of technical proficiency without addressing human goals and interests, like spontaneity, imagination and critical reflection. It discouraged personal initiative, making the learners passive recipients of abstract knowledge, failed to educate students or teachers and did not liberate their minds (McKay, 1991): only a change of model could save physical education in secondary school programmes (Locke, 1992). The study will explore the SCP and NSC pupils' opinions to gauge the status of the affective domain for sport and physical education.

In the knowledge that discipline and self respect could be realised through a meaningful involvement in sport and physical activity, community programmes, in the United States and elsewhere, had been organised to keep at-risk youths out of trouble and to teach them educational and socially acceptable ways of using their time and talent (Karch, 1995). Fox (1996), nevertheless, identified physical education programmes in particular, as an important agency in the promotion of physical activity and the prevention of obesity to counter or offset this trend in unhealthy lifestyles (Karch, 1995). Gummerson (1992) identified physical education teachers as the facilitators of learning for all pupils not just the elite and so this study will investigate equity within the SCP structure.

4.7.2 Moral Issues in Physical Education

Teachers, under pressure to win cups and medals from principals and parents alike (Fraleigh, 1991; Whitehead, 1993) had to be careful not to exploit children (Campbell, 1992). Similarly, they must de-emphasise the extrinsic value of competition as it contributed to lower levels of participation in sport beyond school (Fraleigh, 1991; Gilroy, 1993; Whitehead, 1993). Evans (1987) described a "conflict of values" for teachers and coaches, because, at most levels, winning was equated with success and losing as failure. Thompson (1993) added that unethical behaviour was often tolerated from teachers and coaches providing the team won.

Roberts (1984) suggested that players, coaches and teams were measured by their achievements in terms of winning and losing and this was particularly true in American society (Thompson, 1993), leading to a situation where the joy of the moment that sports could bring was waning (Klug, 1994). Donovan (1997) described the role overload and role conflict of teachers as coaches caused by the varying demands of both roles; something that is related directly to the study. Despite attempts to shift the emphasis away from outcome to process in school sport (Evans and Davies, 1996; Wiren, 1994), teachers and coaches, without a clear philosophy, still tried to imitate the prevalent adult or professional "do-or-die" approach by adopting tactics that would likely increase the chances of team success and, by implication, personal achievement (Martens, 1988). Through this rationalisation there was an underlying implication that successful teams must have evolved out of outstanding programmes, for which the teachers were validated as professionals (Hargreaves, 1986), gained prestige as well as status (Gilroy, 1993) and produced the criteria for promotion (Donovan, 1997). This consensus applied pressure on physical education teachers, such as ranking, testing and league tables, which is the case in Singapore, towards the adoption of a questionable and limited criteria of success to give the school a certain marketability in the public eye (Evans, Penney and Davies, 1996) and physical education academic respectability (Hargreaves, 1986). The end result that too few children benefited from the provision and allocation of resources, reinforced a well-established bias towards the elite performer.

4.7.3 Rethinking the Model

Physical education has had a long-term association with fitness and in the late 1980s there was a global realisation that fitness had a strong genetic element (Fox, 1996). In Western culture, this had resulted in the importance of the process of fitness, in school programmes, becoming the means of determining current and future health, whereas in Singapore fitness had more of a product orientation. Just as in sport, children who were perceived as being less fit were labelled incompetent and those who were faster and stronger were identified as successful and rewarded. Ironically this created a negatively charged situation for those who needed fitness most and invariably such children were

turned off and became attracted to alternative pastimes, such as television and computer games, where their fitness was neglected. Physical education could not cater for all physical activity needs of young people but has responded by emphasising exercise, rather than fitness, conducted in a more conducive atmosphere as an important lifestyle behaviour to address the deficit (Fox, 1996).

Competitive team sport was valuable to children, providing that the activity and the level of competition was appropriate to the child's level of ability and maturity. Motivation, self-esteem and work ethic were often given as evidence of the value of participation, however, the reality was that when the pressure for victory rose, the concern for personal development deteriorated (Klug, 1994). Sport could be modified, utilising a child-centred approach, to offer appropriate and productive experiences to the majority of children. Competition was only healthy if the organisational structure, the level of intensity of training, the expectations of coaches, parents and athletes took full cognisance of the individual's physical, psychological, cognitive and social development (Horton, 1993).

Tinning and Fitzclarence (1992) advocated re-thinking physical education for our 'post-modern' youth to make its content more relevant and engaging, taking into consideration the role of education and physical activity in a technological society. Recently, this has led to a re-conceptualisation of the way physical education was being taught, so much so that a number of innovative models have been produced. Models, such as Health Related Fitness (Almond, 1982; Armstrong, 1984; Biddle, 1984, 1986; Corbin et al., 1985), laterly known as Health Related Exercise (Harris, 1997), Games for Understanding (Thorpe and Bunker, 1983), "Aussie Sports" (ACHPER, 1986) and Sport Education (Alexander et al., 1996; Almond, 1997; Siedentop, 1994) have in their own way attempted to match educational aims with a rapidly changing world. These initiatives were essentially designed to complement the physical education programme but were not panaceas. Unfortunately, "Aussie Sports" ended up replacing the physical education programme in primary schools as teachers handed over responsibility for physical activity to an outside agency (Tinning, 1992). However, the emergence of these

initiatives produced optimism for the future of physical education at a time when it was in competition with private and community based fitness and sport programmes (Corbett, 1995).

Fox (1996) concluded that some of the recent initiatives within physical education had been heavily influenced by exercise and medical scientists' concerns about the associated risks of coronary heart disease in young people. In Singapore the Ministry of Education, aware of the role of obesity as a major risk factor in coronary heart disease, implemented a Trim and Fit programme in all schools for students, who were classified⁵⁹ as overweight. Nevertheless, a re-appraisal of the parameters of physical education to advance positive values (Corbett, 1995) through positive sport experiences (Siedentop, 1994) was necessary to prepare and preserve the subject for the 21st century (Hardman, 1995). It is in relation to this trend in restructuring programmes that the SCP will be interpreted and compared.

The levels of disengagement from sport increased, as young people became older, particularly as the crucial period of examinations approached. This was particularly true in the case of Singapore, stated Horton (1993), where there was also a tendency to favour the elite athlete in the school physical education programme. Physical education had to accept that it was in competition with a post-modern youth culture where physical activity was naturally associated with desirable bodies and a lifestyle of consumption and entertainment (Tinning and Fitzclarence, 1992). Physical education, therefore, had to be made relevant to adolescent life outside of school, if it was going to survive (Kirk, 1996). This concern about physical education will be addressed as an important issue in the implementation of the SCP.

⁵⁹ Schoolchildren were measured annually by the Singapore Standard Height for Weight Tables.

4.7.4 Teaching and Coaching

Parents, teachers and coaches must recognise that selecting and participating in sports had often more to do with fitting in or belonging, than with a desire to compete (Gallahue and Ozmun, 1995). The school was an obvious, major socialising influence on the adolescent and the physical education programme had great potential to influence the individual into activity of some kind. The satisfaction from the way in which physical experiences were presented was crucial to future involvement (Fox, 1996; Whitehead, 1993) so that they impacted positively on children's choices. Coaching must be educational and should attempt to develop positive enduring values (Horton, 1993; Lee, 1993) as the coach's influence carried well beyond the playing field. As coaching values tended to be consistent and were easily transmitted to the young athlete who respected the coach as an important role model: athletes thought like the coach and their values were those of the coach. As a result of good coaching and by engaging athletes in their own learning, self-reliance should develop to a point where the athletes were comfortable on their own and the coach became redundant (Connell, 1993; Martens, 1996; Thompson, 1993).

Contrasting with previous research, which suggested that values were universal, Lee (1993) found that athletes had values particular to their sport. He also stated that boys had differing values to girls and that values varied between individual and team sports. The fact that the SCP embraced boys and girls, as well as individual and team sports will present an opportunity to examine these values. Lee (1993) stated that collective attributes, such as conformity and team spirit, were part of the value culture of team sports and that the three most frequently mentioned values from young athletes were winning, enjoyment and sportsmanship. Motives, he suggested, were similar but not identical to values. Good coaching not only increased the performance potential of children, it also provided enjoyment and contributed to their overall development as people.

Whitehead (1993) thought that it should not be assumed that there was a fault in the child or a deficiency in the programme when a young person dropped-out. It should be perceived rather that children 'drop-in' to sport for a period of their lives, for their own personal development, then 'drop-in' (Whitehead, 1993:119) to alternative choices to continue this process on a firmer foundation, carrying with them the fruits of a positive experience. In other words systems, programmes, teachers and coaches had to be more flexible and accommodating towards young people.

4.7.5 Positive Instruction

By making children active rather than passive learners, their participation level will be increased and by developing thinking skills in sport for solving problems, children's ability will be developed as well as their self-confidence. Problem solving is transferable as a lifetime skill because it is no good being teacher-coach dependent when you have to be able to think for yourself as well as each other (Thompson, 1993). Thinking must be an expectation that was encouraged through a process of asking rather than telling and children needed to feel comfortable making choices without fear of derision and so their decision making would improve with practice.

The game ought to be played by the people it was intended for and in a way that was appropriate because "children are not miniature adults" (Bailey and Martin, 1988:105; Osternig, 1994:15). Thompson (1993) stated that children should be encouraged to assist in teaching each other with the older ones helping the younger ones and that they felt more secure when they were praised in public and corrected in private. The best teachers and coaches did not try to direct all the activities but were able to surrender control to the pupil/performer: they were developers of people as lifelong learners. Thus, the study will explore to what extent pupils are able to think for themselves and contribute suggestions as an aspect of the various coaching styles.

Every child cannot be a superstar but everyone can learn to enjoy a sport throughout his/her lifetime. This was a gift that could be bestowed through good coaching with the

goal of making every child a coach in the future, the type of coach you would have wanted to play for (Thompson, 1993). Keeping children involved in sport was important because an essential characteristic for continued participation and excellence was persistence (Roberts, 1984), so coaches needed to emphasise the process (performance) rather than the product (outcome). It was sound coaching practice to maintain the pool of available athletes at all levels, especially at the more senior level and to achieve this the concerns of athletes had to be adjusted towards task involvement. The SCP will be examined to determine whether these factors are implemented in the administrative and coaching design.

4.8 The Research Rationale

The uniqueness of this study in Singapore implies that there was no previous or parallel phenomenon of its kind. In the knowledge that “no single study...will provide all the answers” (Silverman & Ennis, 1996:7) and that “no single paradigm provides more than a partial picture” (Guba, 1985:87), the research methodology adopted for this project will have to respond to its complexity through a multi-dimensional design. The use of multiple criteria from different sources was “one of the core characteristics of valid and useful evaluations” recommended by Posavac and Carey (1997:84) as it reduced the likelihood of a single variable distorting the analysis and better reflected the complete picture. Silverman (1996:40) encouraging inter-disciplinary investigation suggests that “we must have research in a variety of sub-areas and by a variety of approaches to attain a fuller understanding of our field.” Also supporting this aggregate approach, Gerber (1994) asserted that no single qualitative design can clearly explain a social phenomenon, such as a curriculum innovation, and recommended a combination of methods to illuminate the truth. Patton (1978:152) stated that “both implementation evaluation and outcomes evaluation are important elements in a comprehensive evaluation. The inclusion of both elements can be critical; their ordering is situational.” Process evaluation can be considered as developmental, descriptive, continuous, flexible and inductive not only in formal activities and anticipated outcomes but also through the investigation of informal patterns and unanticipated consequences in the context of programme implementation.

Research studies, which have occurred in natural settings with real teachers and students, have been important to the advancement of knowledge in physical education: see Underwood (1988), Sparkes (1986) and Ennis (1994). However, considerable debate has centred on the merits of combining quantitative and qualitative research in a single study. Some believe the methods are so different that multiple paradigms sacrifice the principles of one or the other method. Gage (1989:4) defined this debate as "the paradigm wars" while Locke et al. (1993), as the controversy continued, noted that multiple paradigmatic research was underway and providing valuable information. Silverman (1996:47) saw the "use of a combined qualitative/quantitative model as a significant, positive development in physical education research and recommended that this diversity should continue." Therefore, appropriate quantitative and qualitative criteria, as advocated by Lincoln and Guba (1985) and Caracelli and Greene (1993), will be combined in the inquiry to provide a modern and competent means for interpreting the innovation in a field setting and for producing ethically sound research. In this study the rigour of the scientific paradigm will be used as a tool, not for prediction, but as a back-up to the validity and reliability of the qualitative interpretation to produce a more holistic and more accurate understanding.

A combination of anthropological as well as hypothetico-deductive measures will offer options that will illustrate the model more completely, provide opinions that have not been previously considered and increase the likelihood that the evaluation input will be more comprehensive. From a utilisation perspective neither of these paradigms is intrinsically better but represents an alternative from which the active-reactive evaluator can choose and consequently a variety of methods is justified to investigate a variety of questions (Patton, 1978). It is therefore important to select the most appropriate criteria and to measure them accurately as this is recognised as a hallmark of ethically sound research.

Waring (1995) stated that as a process unfolded over time there was an oscillation between inductive and deductive reasoning in order to verify the consistency of the rationale against the research questions and the accumulated data. Waring (1995) also suggested that a variety of instances, which did not emanate from the original research

question, did not negate that question, but rather added to the variation and depth of understanding. In line with Waring's opinion this study will use the research process as a passage from the phenomenon under investigation (the research problem) through a series of changing conditions over time, which necessitate modified, alternative or novel actions to lead to the desired goal.

Observational techniques will be used "to make sense of their everyday world" (Cohen & Manion, 1985:33) of both SCP and Non-Sports Class (NSC) pupils with the researcher adopting a non-participant status. This will provide part of the database from which the theoretical concepts and constructs will emerge, and which in turn will provide the framework for the specific questions that will be tested empirically.

The projected four-year period of analysis will cover a cohort's secondary school education and is a significant time frame that will allow the programme to develop. This period permits the researcher to empathise and interact more directly with the programme, plan appropriate measurements from both paradigms, the scientific as well as the descriptive (Thomas and Nelson, 1996), as the initiative unfolds and reflect regularly on its goals, procedures and outcomes. Throughout this study the Principal, of his own accord, will be involved in making observations, interpreting academic test results and implementing modifications to the structure. Thus, he becomes a reflective practitioner and action researcher (Sparkes, 1991; Stenhouse, 1975, 1980). Although action research can be very powerful and encourages critical reflection, it can induce bias from those committed to its progress. Therefore, in this study it will not be considered as the ultimate research tool as it can challenge the status quo and the interests of those involved (Sparkes, 1991). However, data from the action research of the Principal was considered alongside the study's findings and did enable him to make informed decisions about the maintenance of the social and academic equilibrium within his school, giving legitimacy to the research process.

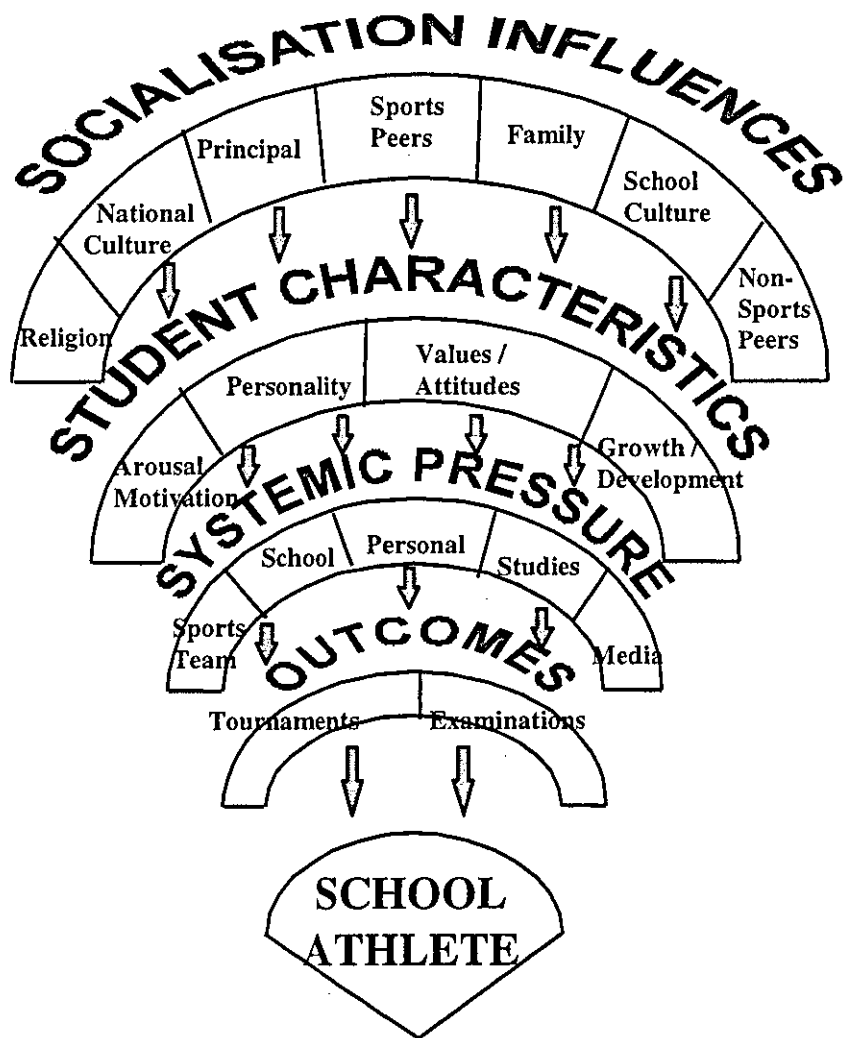
Silverman, (1996:46) stated that interviews, field notes and frequent observation of a wide range of activities "provided a rich description and understanding of a situation

from the perspective of those being studied." Questionnaires and interviews, involving pupils, will be incorporated as a means of gaining triangulation to test the validity of the other instruments (Cohen & Manion, 1985). Additional data will be generated from these sources to identify norms for opinions and values within the school culture and to provide information which will help to understand the perceptions and attitudes of the various actors in the process (Stenhouse, 1980).

4.9 Conclusion

Even if young people should fail to achieve the pinnacle of sporting success after a childhood of dedication providing that they had been influenced by competent and caring teachers and had participated in a positive balanced experience, then their endeavours have not been in vain (Horton, 1993). The study should therefore investigate the all round effects of the SCP, to identify whether in fact this was the case for the sports pupils of CHS. As a consequence of this literature review, Figure 4.2 (overleaf) illustrates more comprehensively the specific components that interact with and apply pressure on the individual sports participant in this Singaporean school.

Figure 4.2: Major Influences on the SCP Athlete



Chapter 5

The Study

The 'Sports Class Programme' at CHS represented the first attempt at a fully integrated curriculum initiative to support sports excellence in Singapore. A necessity therefore arose for a detailed and comprehensive appraisal of the SCP to highlight the significant effects, both positive as well as negative and to make recommendations for improvements. This chapter defines the context from the school's perspective and outlines the research process designed specifically for this study.

5.1 The School

Tyson (1996) saw the school as a social, economic and ethnic reflection of the wider locale, where behavioural trends in the community and in the world outside had been assumed as school issues, which had resulted in schools being burdened with an enormous social responsibility. As part of this responsibility, physical educators perceived the affective domain of student' attitudes and perceptions to be important, as it was directly related to activity outside of class, either during free time or later in life. Tyson (1996:68) suggested that for many it was "the *raison d'être*". In some cases, the *context of the teacher's and student's world was the result of external factors, such as national trends, which was the case in Singapore; in other cases, the factors were locally determined and manipulated, which represented the CHS scenario.* The difficulty that the Principal of CHS faced, was achieving official recognition within the hegemony of national education policy.

Cathedral High School was founded in 1956 by the Chinese-speaking congregations of the Anglican Churches in Singapore and located in a wealthy-middle class area in the Eastern Zone⁶⁰. It was the only school of the Anglican Church that had Chinese as a medium for instruction. This had a profound effect on the character of the school with

⁶⁰ One of 4 areas (districts) demarcated for school sports competitions.

some disciplines, such as physical education, and a number of extra-curricular activities being conducted in the mother tongue.

As one of nine Special Assistance Plan (SAP)⁶¹ schools since 1978, Cathedral High was conferred autonomous⁶² status in 1995. The co-educational school has a population of just over 1,000 boys and girls, boasts hostel facilities for 120 people and, at the time of the study, had students from Malaysia, Indonesia and Hong Kong boarding at the school. Recently, major funding has allowed the school to add extensively to its facilities. Whereas a number of schools in Singapore operate a double session format⁶³, CHS has been a single session school since 1973 and therefore, has been able to provide a more enriching learning programme. The pupils, all of Chinese extraction, represented some of the top 40% of achievers in the Primary School Leaving Examination (PSLE)⁶⁴ and in 1994, were selected, based on the criterion of having scored at least 238 points in the PSLE. Upon entry, the pupils were divided into two streams, Special⁶⁵ and Express.

⁶¹ This plan (SAP) materialised in 1979 out of a concern about the declining enrolment in Chinese medium schools. There was perceived to be a need to preserve a few Chinese medium secondary schools to inculcate traditional values in a Chinese school environment. It was important that these schools were able to attain as high a standard of English as the English medium schools. It was also important to improve the English language proficiency of the non-English medium pupils to enable them to continue into tertiary education and, at the same time, improve their employment prospects. Special Assistance Plan schools are staffed by appropriately experienced teachers and offer excellent facilities for learning as well as a more favourable pupil teacher ratio. Only pupils who are in the top 10% of the Primary School Leaving Examination (PSLE) results may opt for the Special Course and must study two languages (mother tongue and English) at the same level.

⁶² Autonomous schools are government or government-aided schools who are allocated additional funds and greater leeway to execute their mission of providing quality education. They are able to select their own staff and tailor their programs to suit their needs and to stretch the brighter pupils through enrichment programmes. The additional funds also allow the school to hire more support staff, which frees teachers to concentrate on teaching. Autonomous schools function more like independent schools but do not set their own fees. These schools are geographically dispersed for the convenience of pupils living in different parts of the island.

⁶³ Two discrete populations of students attend most government schools each day, one cohort in the am session and another in the p.m. session. The Ministry of Education (MOE) is planning to make all secondary schools single session by 1999.

⁶⁴ In 1998, Anglican accepted pupils for the Special stream with 250-277 PSLE points, and for the Express stream with 245-249 PSLE points.

⁶⁵ The Special stream pupils represent the top 15% from the PSLE and study both Chinese and English as first Languages for the Cambridge Board 'O' Level (Singapore Certificate).

5.1.1 School Philosophy

In his maiden address, the current Principal outlined the school's philosophy, which was quoted in the 1984 Year-Book as: "Our school has always stressed the importance of an all-round education for our students, one which provides for their balanced total development: physical, intellectual, social and moral." The positioning of 'physical' in this statement identified the importance and centrality of sport, fitness and physical activity in the Principal's psyche at that time. Cathedral's current policy, which underpins its purpose, values and direction, is clearly spelt out in the following mission statement, in which the school's objectives set out to:

- cultivate a noble character and teach proper conduct and behaviour;
- impart knowledge and skills to prepare students for a future career;
- provide physical training for good health;
- spread the teachings of Christ and to enrich the spiritual life of the students.

(1996 Yearbook)

These individual goals, outlined by the school, must be interpreted within the wider framework of the MOE that defined four factors for the education service, which would be important as Singapore prepared its pupils for the 21st Century:

1. high academic standards within a structured national curriculum;
2. adaptability and creativity to meet the demands of a fast changing world;
3. a more global outlook to cope with increasing internationalisation of the world economy;
4. a set of shared national values to emphasise the family, the community and consensus building.

Lee Yock Suan, Minister for Education, 1992.

The first objective sets the tone for Singapore schools and any reference to sport is conspicuous by its absence. However, the priority of Cathedral's aims have altered somewhat over a 12 year period, are now more specific and, with the addition of a spiritual goal, reflect more the culture of a mission school. If the placement of objectives is an indication of their importance, a juxta-positioning has occurred: moral and social

considerations may now be taken to be the most important, the intellectual objective remains stable in second and physical development, mentioned, in 1984, as the foremost objective, has been reduced to 'physical training with a purpose' and relegated to a lower level. This description ties in quite closely with the national ideology of 'the physical'.

The school has, over many years, developed a tradition of academic and sporting success. The school's calibre can be judged from an analysis of the academic results from the six years prior to 1994, which showed that an average of 99.1% passed five 'O' Levels or more and 88.8% qualified for Junior College (JC). Schools, in Singapore, are ranked based on these results, as a way of monitoring their progress academically⁶⁶. Ranking, not only produces enormous pressure for teachers and pupils, it also creates a highly competitive academic milieu⁶⁷ and an anti-sport culture.

5.1.2 Cathedral's Sporting History

CHS has a long-standing reputation in sport, particularly in the 'preferred Chinese sports' of badminton, basketball and table tennis. This identity has been evident since 1964, largely because an indoor sports stadium was added to the school facilities that year. During this headship, the school has developed a flourishing ECA programme, which offers pupils enormous variety through sport as well as non-sporting activities. A Straits Times report (22nd March, 1996), titled "Cathedral High shine in sports, studies", indicated that a "specialisation policy was the key to their success". This was concluded from an analysis of the quality of the sports players' academic results in 'O' level examinations and their successful sporting performance in zone and national championships.

⁶⁶ In 1994, the Ministry of Education operated a ranking system based on the Mean Subject Grade (MSG) which was achieved by taking the grades in all subjects of all pupils taking their 'O' levels in a particular school and dividing by the number of subjects taken by 100. This system was subsequently replaced in 1996, by the first language and best five subjects (L1B5), the criteria used for Junior College Admission.

⁶⁷ Schools are also ranked in relation to fitness and obesity.

In 1986, basketball was the most successful sport at CHS winning four zone titles, two national titles as well as two national runner-up positions and having two players selected for the Singapore Combined Schools team. This was the first year that Cathedral had entered the badminton tournaments, winning the girls' 'C' Division⁶⁸ zone title and finishing runner-up in the national championships, however, there were no badminton teams for boys at this point. Players from basketball dominated the school awards with eight Certificates of Commendation compared to two from the badminton teams. Table tennis players, only boys at this time, were unsuccessful in winning any school award and were the weakest sport in terms of their overall achievement.

The following year (1987) there were almost twice as many school awards and three times as many Combined Schools players (six in basketball and one in badminton). Basketball remained as the dominant sport, with three zone titles and three national titles to their credit. Altogether, CHS won six zone and five national titles. By 1989, badminton teams were beginning to dominate the results, taking over the limelight from basketball. An established trend in tournament results continued through to 1994, with occasional successes by individuals in other sports, like swimming and sailing. Boys and girls entered the badminton and table tennis competitions for the first time in 1988 and 1991 respectively. By 1993, a total of 30 school prizes had been awarded for sport, the majority in badminton and the School Yearbook mentioned, for the first time, the award of Zone and National Colours to CHS players.

CHS Yearbooks from 1986-1993 highlighted pupils, who had created a reputation for excellence through being recognised for national honours. Having excelled in school sport, more than 24 had also represented their country, as either Combined Schools players, National Youth players or had received colours for their performances in the National Schools Championships. This recognition became so frequent, it created an

⁶⁸ The pupils in Singapore secondary schools compete in school sports in two age-groups: 'C' Division caters for pupils in Secondary 1 and 2, while 'B' Division caters for those in Secondary 3 and 4.

expectation of excellence from the players and indeed, from the coaches and undoubtedly inspired the Principal to create this special programme for his students.

5.2 The Principal

The key players in any school's administration are the principals. Their philosophy, knowledge and understanding of management, as well as culture, preserves the stability of the process (the status quo), its evaluation and any subsequent alteration of its structure. A principal's leadership is critical to the creation and maintenance of effective organisations in general and effective schools in particular, by motivating students and staff through a supportive environment or 'culture' (Chew, 1997). Principals of exemplary schools in Singapore, not only retained the transactional function of leadership, but also possessed transformational characteristics, with the ability to generate beyond expectations (Gopinathan et al., 1993). Having acted as Vice-Principal for a short period, Mr Tan was appointed Principal in 1984. Mr Tan had been an enthusiastic sportsman in his youth, enjoying a number of different sports and had represented his school in table tennis, an activity that he still pursues. Currently, he is a member of the basketball 'Task Force' that is reviewing the status of the Singapore Basketball Association. He inherited a school with "remarkable achievements" in the academic domain (School Yearbook, 1983) and outlined his mission to "continue to strive for even higher goals and to bring still greater honour to the school." Mr Tan's leadership has given a new direction to the school by focusing on all-round excellence that embraces both, the schools academic achievements, as well as its extra-curricular programme and a focus of this agenda was the sporting ethos of the school. He believed that the school's longstanding achievements and sporting traditions were vital for its future development. After ten years of educational progress, he was fully aware of the increasing threat to sports participation posed by the dominance of tests and examinations and the fact that, as his school became more academically successful, the characteristics of the pupils, thus attracted, were changing. As these curriculum tensions appeared to be at odds with each other, he conducted a major experiment to protect the status of sport in his school. Although not so major in magnitude, the project represented a massive paradigm shift. To maintain the

school's sporting profile and to keep sport relevant and accessible, he ambitiously modified the curriculum and the timetable for his sports students, to help them cope better with the increasing pressures of combining studies and playing sport. Mr Tan was totally committed to the initiative, had absolute control over its policy and through his enthusiasm and expectations for its success, the programme attracted considerable attention. The Principal's personal commitment to sporting development, which involved him 'sticking his neck out' in the academic arena, and the publicity he generated, placed the school under the media spotlight, which succeeded in creating considerable pressure for the players.

5.3 The Research Process

A four-year time frame allowed for many opportunities to work at close-quarters, so that the evaluations would be more comprehensive and would more accurately reflect the programme and its context. An evaluation theory model, utilising both experimental methods alongside a qualitative design, was selected as the most relevant design to examine the SCP. Posavac and Carey (1997:10) stated that "evaluation gathers information to help people improve their effectiveness, to assist administrators to make programme level decisions and to create the conditions for programme results to be examined by the public" and this is what the study set out to achieve. The study examined the initiative's structure, implementation and efficiency, as well as the programmes' outcomes, making recommendations that would further improve the implementation of the programme. (*As well as seeking out positive outcomes, the study attempted, through carefully planned non-reactive measures, to detect any negative side effects that emerged during the investigation.*) Some role conflict could exist between the researcher gathering data and the service providers, as different people held varying opinions about what constituted a successful outcome and, given the cultural and pedagogical diversity, this was a potential issue that was borne in mind.

To gain 'triangulation' (Cohen & Manion, 1985:263), non-participant observations, questionnaires and serial in-depth interviews were conducted with the major stakeholders: the pupils, the teachers/coaches and the Principal. These sources provided detailed information that was derived from close contact with the participants. Experimental analyses of pupils' attitudes, opinions and fitness as well as objective assessments of sports and academic records provided an additional database for assessing this quest for excellence, in what appeared to be the conflicting domains of academic and sporting achievement. Bloor (1997:38) suggested that triangulation had become accepted by sociologists "as an appropriate means of testing validity" and Posavac and Carey (1997) stated that triangulation also strengthened reliability. Part of the investigation, to determine the success and value of the initiative, was to measure the outcomes against the programme's objectives, as outlined by the Principal in an interview conducted in 1994:

1. to help the sports players balance their studies and their sports;
2. to maintain and improve the school traditions in sport;
3. to help the country by developing national players;
4. to gain official recognition for the scheme.

These general aims therefore became part of the criteria upon which the programme was evaluated. Stenhouse (1975) argued that the 'means-end' approach of objectives for curriculum evaluation was limiting and advocated a process model, although he conceded that the former had utility in areas emphasising information and skills. Therefore, it was inappropriate to limit the evaluation findings to a narrow focus on the programmes' objectives alone, as opportunities to identify important, unanticipated outcomes would be overlooked and insufficient information would be generated, on which to act. Therefore, to complement the summative judgements and recommendations, a flow of formative diagnostic data, in the shape of annual evaluations, provided the administration with opportunities to remedy the design and implementation of the programme, whilst retaining its positive features (Hawkrige, 1970; Posavac et al., 1997). Essentially, this incremental design identified and evaluated the influences and impact the initiative had on the life of the school as the programme developed.

If this initiative was successful in maintaining or enhancing levels of academic achievement, whilst achieving higher levels of sporting excellence, then the study's findings could assist in the assessment of the scheme's value, as an 'elective' programme. However, it is important to recognise that programmes, in general, could be valuable even when there were no measurable effects, because the value, in this case, was the SCP happening at all.

Taking all of this justification into consideration, an improvement-focused evaluation model was considered most appropriate for use over a four-year period. Posavac and Carey (1997:27) stated that it best fitted the criteria necessary for effective evaluation "when discrepancies were discovered between what is observed and measured and what was planned and projected." Thus, systematic and incremental measurements, as well as observations, from a single cohort of pupils would provide all of the projected data for analysis.

5.3.1 Research Questions

The fundamental research question was to address how successful the programme had been, by examining the original programme's objectives against the qualitative and quantitative evidence, collected from boys and girls in the sports of badminton, basketball and table tennis, over the four-year period.

The research questions that emerged, as being necessary to evaluate the success of the 'SCP' fell into four main categories:

1. The impact of the programme on the clients: pupils and parents.

The study investigated the worth of the programme for the pupils, by examining their attitudes and opinions towards it. It was also important to evaluate whether there was any gender differentiation, as well as any differentiation among the three selected sports, as a consequence of participation in the programme. The study also investigated, through various responses from the players, the level of parental support for the SCP.

2. The impact of the programme on the curriculum and the school.

This area of investigation concerned the implementation of the SCP model as well as the impact of the innovation on the culture of the school. The study also assessed the capability of the model to deliver educational goals, by comparing the academic outcomes of the 1994 cohort with results achieved before the programme's implementation.

3. The effect of the SCP on school sport, physical education and ECA.

The study examined the extent to which the SCP model influenced the content and provision for the Physical Education and ECA programmes, as well as the impact this had on the teaching and coaching of curricular and extra-curricular activities. Considering the national significance of fitness, the study examined the effect of the training regimen on the pupils' fitness levels and also evaluated the calibre of sporting achievements throughout the study to assess the programme's sporting quality.

4. The administration of the programme: Principal, teachers and coaches.

The study next investigated the perceptions of major stakeholders such as the Principal, coaches and teachers as the programme developed and assessed, through their opinions, the effect of modifications that were made to the programme's structure.

The study's recommendations address ways in which the scheme might be improved to yield better results in sporting and academic attainment for the students, not only within this programme but beyond, towards the nation's goal of international sports excellence. The evaluation anticipated that some unexpected outcomes would surface during the course of the study and these were documented, to add depth and meaning to the analysis.

5.3.2 Approval

The Principal of CHS approached the School of Physical Education in 1993, informing them of his scheme to develop sporting excellence. He requested help in assessing the implementation and progress of his initiative, which was to be known as 'The Sports

Class'. The author of this study volunteered to be an independent consultant for the project, which met with the Principal's approval. It was decided that the author would conduct all research to ensure a high degree of control and consistency. Once consent had been given, all necessary approvals⁶⁹ were sought from the Ministry of Education, so that the research could proceed.

5.3.3 Experimental Design

The improvement-focused evaluation model was chosen as the preferred overview, so the information, drawn from the literature, highlighted the direction of the study and identified appropriate instruments of measurement. Regular observations, questionnaires and interviews with key participants provided a major source for descriptive data. The effect of interviewing three different groups of people (the Principal, the teachers/coaches and the players) involved in the project was accepted as a within-method triangulation (Burgess, 1984). Additionally, an experimental-control group design was used for the analysis of scientific data, as this provided a comparison between the main treatment of the 'SCP' and an equivalent non-treatment group. The experimental-control design compensated for any changes that occurred longitudinally due to subject maturation, history or testing, and also protected against the threat to internal validity. The researcher, however, did not have direct access or opportunity to manipulate the independent variable (the SCP) but rather, from a non-participant stance, observed and measured the programme's effects on the pupils in an attempt to draw cause and effect relationships. The size of the control group was adequate to tease out changes in aerobic fitness that resulted from growth and maturation alone. It has been assumed that this factor covered other elements of human development as well as aerobic fitness. To prevent further threat to validity, a field setting was used for all experimentation, on the assumption that field based studies yielded more valid and reliable data than convenience samples and, as a result, a truer picture was obtained. The inquiry also examined the school's traditions by analysing records for sports, academics and fitness performance to determine the nature of success, prior to the SCP.

⁶⁹ Official approval Ref.: Edun N32-07-005 Vol 35: ESS/94/36 was given on the 17th May 1994 (refer to Appendix 1).

From the beginning, it was assumed that the year-group, selected for the experimental and control groups, was representative of a normal cohort of students, with no special characteristics, other than being first to start the programme. It was also assumed that the rigours of each protocol would encourage the pupils to respond honestly and accurately, although conservatively, to the questions posited.

Formative evaluations were produced by regular appraisal of the programmes' development and were presented to the Principal, as annual reports for any necessary action. These reflections and analyses, representing a continuous spiral (Stenhouse, 1975), reduced, if not eliminated, the halo effect, as they more accurately reflected the programme itself, rather than the researcher's expectation of it. As researcher bias was inevitable and necessary (Horton, 1999) every effort was taken to understand the SCP from a neutral perspective, within the Singapore context, albeit through the eyes of an alien. The annual appraisal allowed the programme's development to be interpreted, through an analysis of the data already processed, with the information benefiting the Principal in his regular programme evaluation.

5.3.4 Subjects

All subjects in the study were of Chinese extraction, equivalent in age and academic ability and there were similar numbers of boys and girls in the two treatment groups. A total of 69 boys and girls were selected for the SCP and a further 74 pupils volunteered to become the control group.

5.3.5 Sampling

As school-based research is problematic, investigators have to use the best sampling technique they can because the selection of a specific situation and sample for a study is a compromise on generalisability that must be made to assure good research. Randomisation, a fundamental of good research design, was not possible in many school settings and so every effort was taken, to ensure that this occurred in the study.

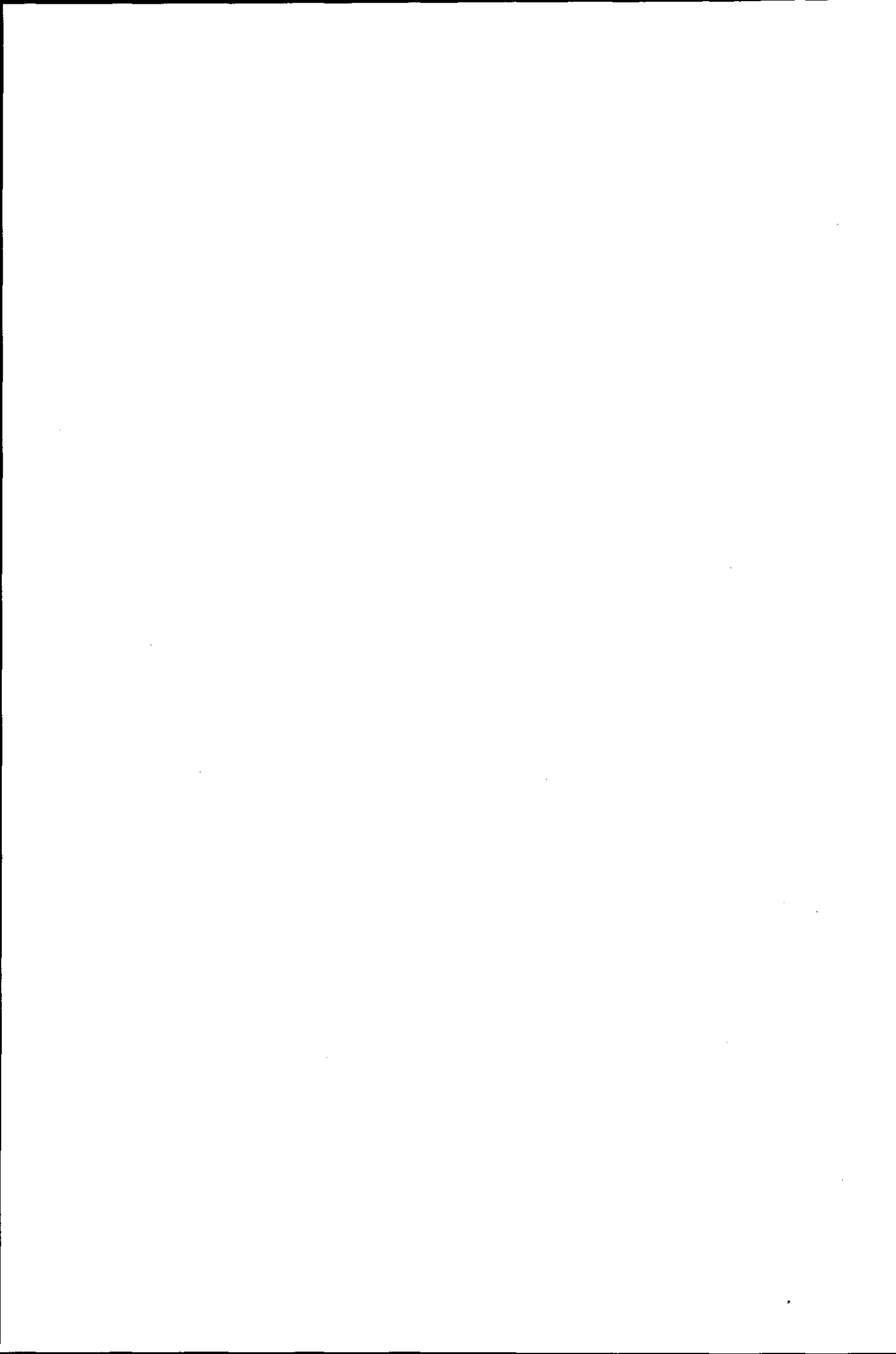
All of the SCP pupils in Secondary 1 became the subjects for the experimental group, which provided for greater external validity, as the subjects represented the whole of the population being generalised to. A potential control group⁷⁰ was negotiated with the Principal and was selected from the two strata of academic ability in the school. As the data collections were conducted during school hours, the Principal did not accept a totally random selection, as it would have disrupted many classes simultaneously and created many difficulties in the allocation of conditions for testing. This situation presented a level of selection bias, because the subjects of the experimental group were pre-selected and the Principal selected the control group from two classes, which he thought best represented a valid cross-section of the normal school population. Although this randomisation procedure represented some threat to internal validity through sampling error, the levels of equivalence achieved were satisfactory, ensuring that the effects of maturation and history were similar across the two groups.

5.3.6 Consent Forms

For ethical compliance, informed consent forms (see Appendix 2) were administered to all potential subjects in the study for parental approval and confidentiality was guaranteed. The whole cohort of SCP students received permission to participate in the study, along with 74 pupils, who were not in the programme (the NSC). The experimental and control groups were similar in four respects:

1. age- all born in 1981;
2. academic status- equal numbers came from special and express streams;
3. gender- similar numbers of boys and girls; and
4. quantity- sufficient numbers in each group allowed scope for experimental mortality without jeopardising sample size.

⁷⁰ In the considered opinion of the principal these pupils were most representative of the non-treatment group and for pragmatic reasons he selected two different classes to be potential subjects (One from each of the academic attainment levels).



5.3.7 Data Collection

The data-collection for each experiment was always conducted on the same morning throughout the study to ensure consistency. Consequently, the Multistage Fitness Test was conducted in the same week of Term 3, for four consecutive years and the same setting, timing, environment and instructions for the two groups reduced data contamination. To prevent further abuse of the experimental data, the results of all subjects, who had left the school, had to repeat or were transferred out of the two groups, were discarded from the longitudinal and pre/post test designs. However, these pupils did provide a valuable source for descriptive data that was current and valid for the post-test designs.

5.3.8 Validity

As there was no single instrument available for examining a complex phenomenon of this kind, a selection of qualitative/quantitative instruments added greater validity to the study. However, only established, reliable tests, which were conducted in accordance with the recommended protocols, assigned by their respective authors, were used to validate the accuracy of the information and support the level of internal consistency. To avoid the inherent problems with nationally-normed field test fitness data, the whole test administration was conducted by the author. This was because, when different examiners collected data at different sites, it was difficult to assure consistency and as such interrater reliability (objectivity) and intrarater reliability (consistency) tended to be poor. A third problem, in comparing generational scores, rested in the test items themselves, as comparisons could be made only among items that were administered in exactly the same manner. Changing the protocol for an assessment item, even slightly, could have resulted in drastically inflated or deflated scores and every effort was taken to ensure that this did not occur.

Therefore, the problems that would have been created by interrater reliability were eliminated, as the author personally supervised every item of research. This would add to

instrument accuracy, as well as the consistency of scores and would secure a measure of objectivity. Care, attention to detail and professionalism in the data-collection also helped to minimise measurement error that would contaminate the results. With the exception of the interviews that were conducted personally and privately, professional assistance was solicited for the data-collection. Colleagues, post-graduate and honours students, who were experienced in research, were approached for assistance, to prevent inaccurate testing procedures. To further strengthen the analysis, all computed data was verified by a post-graduate research assistant, to remove any threat of error in its tabulation.

External validity has no statistical reference and is qualitatively determined by the producer and consumer of research, when using the results of a study in other conditions or settings. Internal and external validity are inversely proportional to each other and it is impossible to control for high levels in each, although it is conceivable to have a reasonable amount of each. As external validity was more transferable and an evaluation approach was unique to the phenomenon, there was potential conflict in generalising from a single study; however, the fusion of instruments attempted to tease out common characteristics that possessed this capability. Multiple treatment interference was a possible consequence of the study's design and could have adversely influenced the results by affecting the pupils' attitudes towards the research, but the variety of measures, within the experimental design, helped to control for this threat.

5.3.9 The Longitudinal Data Calendar

In April 1994, two sites were visited in England, to produce some background knowledge of the administration of sporting excellence in very different educational circumstances. The Football Association (FA) School of Excellence at Lilleshall and Millfield School provided an important focus between two diverse models of excellence: the FA site concerned a single sport sponsored by a national association and Millfield concerned excellence for multiple sports, sponsored by the school itself as a 'Gifted School'. Both of these examples had some relevance with the 'SCP' study, by virtue of their

relationship with the respective national associations and the implementation of a 'gifted' or 'elective' programme in a school setting, which was one of the goals in the SCP.

The sequence of the data-collection was not pre-determined but occurred as a result of the evaluation design, which necessitated regular reviews and assessments of data, observations and information, as the programme evolved. A major data review was conducted in the last quarter of each year, to assess the study's progress and to determine the next research development, guided by an on-going review of literature to identify important characteristics.

Initial observations, through Initial Teacher Training supervision, opened up contacts with staff and coaches and allowed many opportunities to witness the programme in action. The first data-collection concerned the Multistage Fitness Test, just after the commencement of Term 3 (July, 1994). This timing was convenient for the Principal and relatively neutral to both populations, giving neither a perceived advantage over the other, as it fell just prior to the NAPFA test, which was compulsory for all pupils. This timing set a precedent for future research, some of which was based on the original programming.

5.3.10 Observation and Measurement Calendar

As decisions about what to examine and measure unfolded, through the process of formative evaluations, the following calendar could be produced only after the study was complete. The investigation developed through annual evaluations, backed up by a continuous appraisal of the literature; for example, it was not decided to post-test the pupils, using the Children's Attitude To Physical Activity Inventory (CATPA), until the end of year three, when a retest was considered appropriate. Field notes, an example of which can be seen in Appendix 6, were produced on most visits and recorded in diary form to include anything of influence.

5.3.10.1 Year 1

In the first year, tests were conducted separately, but on the same morning, for both groups to establish a database, from which further decisions would be taken. Biographical data was collected via a questionnaire, which contained elements that were being used in a nation-wide survey of children's exercise habits by Schmidt, Walkuski and Stensel (1997) (refer to Appendix 3). Although this data was collected in two separate sittings, the tests were conducted in exactly the same manner and order.

Immediately afterwards, the CATPA inventory set out to examine the experimental and control groups to identify differences in their attitudes about participation in physical activity. The CATPA inventory designed by Simon and Smoll (1974) was modified from the ATPA inventory of Kenyon (1968) which was used in the British Columbia Physical Education Assessment project in 1980 by Carre, Mosher and Schutz. This test was selected because of the high Hoyt reliabilities of .80 and .90 established by Schutz and Smoll (1977) and Schutz, Smoll and Wood (1981) respectively that identified the inventory as reliable for assessing group status and change, but not for individual assessment. However, the main justification came out of the validation for use on Singapore children by Aplin and Saunders (1991), who found reliability values ranging from .72 to .84 and a mean value of .79, indicating that the test was appropriate in this social and geographical context. The inventory was administered following the recommended protocols (Simon and Smoll, 1974).

Immediately prior to the Multistage Fitness Test, post-graduate students from the School of Physical Education took height and weight measurements from all subjects, using Seca Digital Weighing Scales (Model No.708) that had been calibrated beforehand. This data was subsequently converted using the Singapore Ministry of Health's Height for Weight Tables and also converted into Body Mass Index (BMI) scales for health comparisons to be made. This data was also thought to be useful for interpreting the fitness scores.

The fitness (aerobic) of the 143 volunteers in the study was measured by the Multistage Fitness Test, developed from the 20-Metre Shuttle Test (20-MST) of Leger and Lambert in 1982. The test was conducted to assess differences between the experimental and control groups and to identify any trends that would be useful to the SCP coaches. This test was the most appropriate for collecting data from children (Boreham, Paliczka & Nichols, 1990; Mahoney, 1992; Mercier, 1983; Van Mechelin, Hlobil & Kemper, 1986) in a field-setting using a large number of pupils (Hazeldine, 1988) over an extended period. Leger and Lambert (1982) concluded that the 20-MST was a valid and reliable test for individuals or for groups on most gymnasium surfaces and this made it an appropriate instrument for this study. Mercier (1983) reported that the 20-MST was a better predictor of fitness for children than endurance runs because it was an indoor test with no climatic or surface differences and it had a protocol of increasing speed that was much in accordance with the loading pattern of a VO_2 max test ($r=0.71$). Although the study was not measuring VO_2 max, the consistency of the indoor climate and surface was a relevant factor.

The adoption of the instrument was further supported by Van Mechelin (1986), who compared the results of three tests (6 min run, treadmill test and 20-MST) on 12-14 year old children, a similar age to the pupils in this study. Van Mechelin found no significant difference between the 6 minute run and the VO_2 max test and between the VO_2 max test and the 20-MST ($p \leq 0.05$), concluding that the results indicated ($r=0.76$) that the 20-MST was suitable for measuring maximal aerobic power and it was preferred because of these additional reasons, making it relevant for use in the study:

1. the running pace was set by audio signal;
2. the pupils were more motivated to run, due to the stimulating character of the audio signal; and
3. it was more readily administered in physical education lessons.

In a comparison of the 20-MST and the PWC₁₇₀, Boreham et al. (1990)⁷¹ showed that linear regression of PWC₁₇₀ and 20-MST on VO₂max scores (n=41) revealed similarly high powers of prediction for both tests (PWC₁₇₀ vs VO₂max, r=0.84; 20-MSt vs VO₂max, r=0.87), indicating that the Multistage Test might be preferable for use with girls. In conclusion, the 20-MST appeared to be a valid predictor of VO₂max in adolescent schoolchildren and with constraints of time and tester expertise, the Multistage Test was favoured for assessment in this study.

The 1 minute test protocol suggested by Leger and Rouillard in 1983 and Brewer, Ramsbottom and Williams in 1988 was used on all occasions and all the pupils were tested on the same morning, to provide identical conditions. Brewer et al. (1988) recommended a tabulation based on the level (palier) that the child dropped out including the shuttle number, which was expressed as a percentage of the palier. Prior to each test the cassette recorder was checked for reliability and a new tape was prepared and calibrated against abnormality specifically for the test, to ensure that it complied with the defined tolerance. Identical tests were conducted on both groups, for four consecutive years in the school's indoor hall.

The initial data collection had been completed when the results for ECA, NAPFA and 'O' Levels were obtained from the School Yearbook at a later stage in the term. All of these measurements, facts and observations were compiled in a report for the Principal and formed a database for further reflection. It is important to state that during data collection, a reciprocal process was taking place: while an on-going review of the literature was influencing the measurements that were being taken, the observations and reflections, which were occurring simultaneously, were at the same time being related back to the literature.

Finally, interviews were conducted with the Principal, coaches and teachers of the PE department and academic staff, to ascertain their perspectives about the programme's

⁷¹ Boreham tested 48 schoolchildren (boys and girls) mean age 15.5 years.

development and its acceptance within the school. The results of these interviews will be combined with interviews held later in the study and will be catalogued in Chapter 8.

5.3.10.2 Year 2

After a careful review of the established database, it was decided to continue to measure body size, as well as fitness, in exactly the same way as previously. These results would act as annual increments leading to an overall picture of trends for the experimental and control groups (SCP and NSC), genders and sub-groups (badminton, basketball and table tennis).

A questionnaire was designed specifically for each group to explore the pupils' thoughts, and current opinions about the programme and also about their physical activity levels and interests (refer to Appendix 4 and 5). The questionnaires were administered prior to the Multistage Fitness Test that was conducted at exactly the same time as the previous year. Later in the year, prior to the annual report, the results from ECA, NAPFA and 'O' Levels were again examined from the School Yearbook.

5.3.10.3 Year 3

More analysis and reflection followed the second data collection, to gauge the programme's progress and to ascertain the future direction of the study. Two factors, body size and aerobic fitness, had already been established as annual tests and the literature suggested that pupils' values and attitudes were important to identify and measure. Intrinsic and extrinsic motivation, task and ego orientations and reasons for participating in sport were three factors that appeared relevant and important in the review of literature.

The following instruments were selected to examine these three factors in both groups, because of their high levels of internal consistency:

1. To understand the pupils' motivation as a developmental outcome of their social environment and as a developmental influence on their behaviour, the 28 item Sport Motivation Scale (SMS) of Pelletier, Fortier, Vallerand, Tuson, Briere and Blais (1995) was used to measure intrinsic and extrinsic motivation in this sport setting. The SMS was preferred over the 18-item inventory of McAuley, Duncan and Tammen (1989) and that of Weiss, Bredemeier, and Shewchuk (1985), because it addressed different types of motivation including amotivation rather than just the two major constructs. Pelletier found high internal consistency for the inventory with Cronbach alpha values ranging between .63 for 'identification regulation' and .80 for 'intrinsic motivation to know' and 'intrinsic motivation for accomplishment', expressing a mean consistency of .75.

2. If the programme was going to be successful, then future participation had to be a consideration in the final appraisal. As the literature reported that children who had higher levels of task orientation had a greater likelihood to continue to participate in sport and derived more pleasure from participation, the Task and Ego Orientation in Sport Questionnaire (TEOSQ) was used to measure these characteristics. The inventory, designed by Duda (1989), was chosen as it demonstrated acceptably high internal consistency, with Cronbach alpha coefficients of .82 and .89 respectively.

3. To investigate the perceived value and benefits of participation in sport the Purpose of Sport Questionnaire⁷² was selected because high internal consistency was found in seven separate factors, with Cronbach alpha coefficients ranging from .75 to .83.

To add greater depth to the analysis, all 'Sport Class' pupils who had begun the programme in 1994 were interviewed. As a result of the questionnaires in Year 2, when so many pupils responded with 'don't know' or neutral replies, it was decided that a

⁷² This questionnaire was also designed by Duda (1989), used a 5-point Likert scale and was based on the Purposes of Schooling Questionnaire of Nichols et al. (1985) and Thorkildson (1988).

“completely informal interview” format (Cohen and Manion, 1985: 291) was most appropriate. The same “unstructured” format (Cohen and Manion, 1985: 293) for each participant guaranteed the trustworthiness of this procedure. The large numbers meant that half the interviews were conducted towards the end of Year 3 and the remainder in first mid-term break of Year 4. The interview sequence was randomly organised by the Physical Education Department on an appointment basis, however, a majority of team players were interviewed first, as they were most accessible. All of the ‘SCP’ pupils were interviewed, including those who had already been transferred out to other classes. It was hoped that by including the whole of the original cohort, a more complete awareness of the pupils’ perceptions, feelings and concerns would be achieved. Additional interviews with the major school coaches were also conducted to further examine their perceptions of the programme’s development, particularly as some structural changes had been made.

5.3.10.4 Year 4

As previously, an annual report and a review of all the data collected to date allowed reflection and determined what information was deficient and which procedures were still necessary to advance the study.

The first research task completed in 1997 was the conclusion of the players’ interviews. It was found that interviewing half of the pupils in Year 3 and half in Year 4 was a benefit to the study, as it allowed two chronological perspectives to cast light on the programme’s development, giving a cohort effect to the data. Body measurements, along with the Multistage Test, continued in line with previous years, in spite of the fact that the championships were over and the training, for this cohort, had effectively finished. It was thought that there was still some relevance for this measure, as the NAPFA test had still to be completed by both groups.

A CATPA re-test for both groups was considered appropriate at this stage in the study, to identify whether any change in attitude had occurred over the timeframe, as a result of the SCP. This inventory was again applied to both groups and was analysed as a pre-post

test design. Following on from the intrinsic/extrinsic motivation measurements in Year 3, the literature also suggested that sport had a positive influence on self-esteem. The Self-Perception Profile For Adolescents (Harter, 1988) was used to measure 'Self-Esteem' (refer to Appendix 14). Only seven constructs were selected, as Job Competence and Romance appeared to have little relevance in this particular setting. Harter found acceptably high levels of internal consistency with Cronbach Alpha reliability scores ranging from .78 to .92 with a mean rating of .83, which provided a further justification for this application.

Also tied in with the TEOSQ from Year 3 was a need to explore how competitive the SCP pupils had become, in relation to the control group and Webb's (1969) Play-Professional Continuum was used to resolve this problem. As these results would only paint a current picture with no antecedence, it was decided to measure the attitudes of the three subsequent cohorts of SCP pupils. This gave the data a better perspective in an attempt to delineate a trend.

Once more the school Yearbook was used to provide the data on ECA results, NAPFA results as well as the actual 'O' level results for this cohort of pupils. A final round of interviews with the Principal and the coaches, at the end of the four-year study period, was considered necessary to conclude the data collection.

The results of all tests will be synthesised with the descriptive analysis where relevant, in Chapters 6-9, as a means of triangulating and validating the qualitative material that was collected during the observations, interviews, and questionnaires of the various participants. A full tabulation of all experimental research results will be included in the Appendices on a test-by-test basis.

5.4 Statistical Analysis

Some of the findings and substance of the literature review were scientifically investigated within the programme and a statistical analysis was used to interpret the data. This analysis was used as an endorsement to the interview data, to support

triangulation through the various inventories and the non-participant observations, to substantiate the programme's progress.

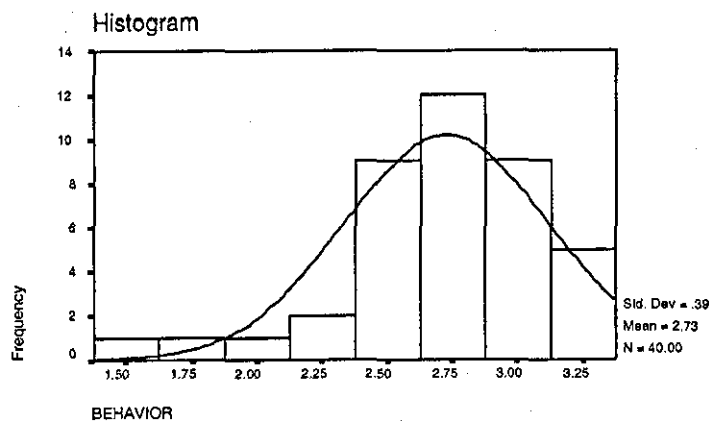
The Statistical Package for the Social Sciences (SPSS 6.1.2) was used to analyse all the Multistage results but this statistical programme was updated to the SPSS 7.5 version for all other analyses. The .05 level of significance (alpha) was considered sufficient for identifying difference, other than by chance, in every test analysis in this study. The type of analysis varied, depending on whether it was a longitudinal, pre-post or post-test design. The Multistage results were analysed through t-tests for independent samples and Analysis of Variance. The t-tests identified differences between the two populations while ANOVA identified differences between the four years. As a post-hoc, the Tukey Highly Significant Difference Test identified where these differences lay.

For the CATPA results multivariate analysis could not be used as the skewness differential indicated abnormal populations. Significant differences in the covariance matrices of the eight dependent variables, identified by the Box Test, meant that the non-parametric, Mann Whitney U Test was selected in preference. Task and Ego results were analysed through t-tests for paired samples to identify differences within groups and t-tests for independent samples to identify differences between groups.

General Linear Model-multivariate analysis was used for the Purpose of Sport Inventory of Duda, Pelletier's Sport Motivation Scale and Harter's Self-Perception Profile. This procedure provides regression analysis of variance for multiple dependent variables by one or more factor variables, which divide the population into groups. The above inventories had seven dependent variables, all of which fell into acceptable limits for normality, except one. In the self-esteem inventory the behaviour variable was outside the limits for normality, as it had an abnormal skewness value of 3.82 and a kurtosis value of 3.54, which lay outside the standard for acceptability (Schwartz, 1992). As can be seen from Figure 5.1, the data is negatively skewed, but when one considers the nature of the population (selective and independent), the age (adolescent) and the culture (Singaporean Chinese), this can be considered to be an acceptable or even normal

distribution. This variable was also one of two sub-scales that Harter had previously revised because of low reliability in previous tests.

Figure 5.1: Histogram Showing Skewness of Behaviour Variable



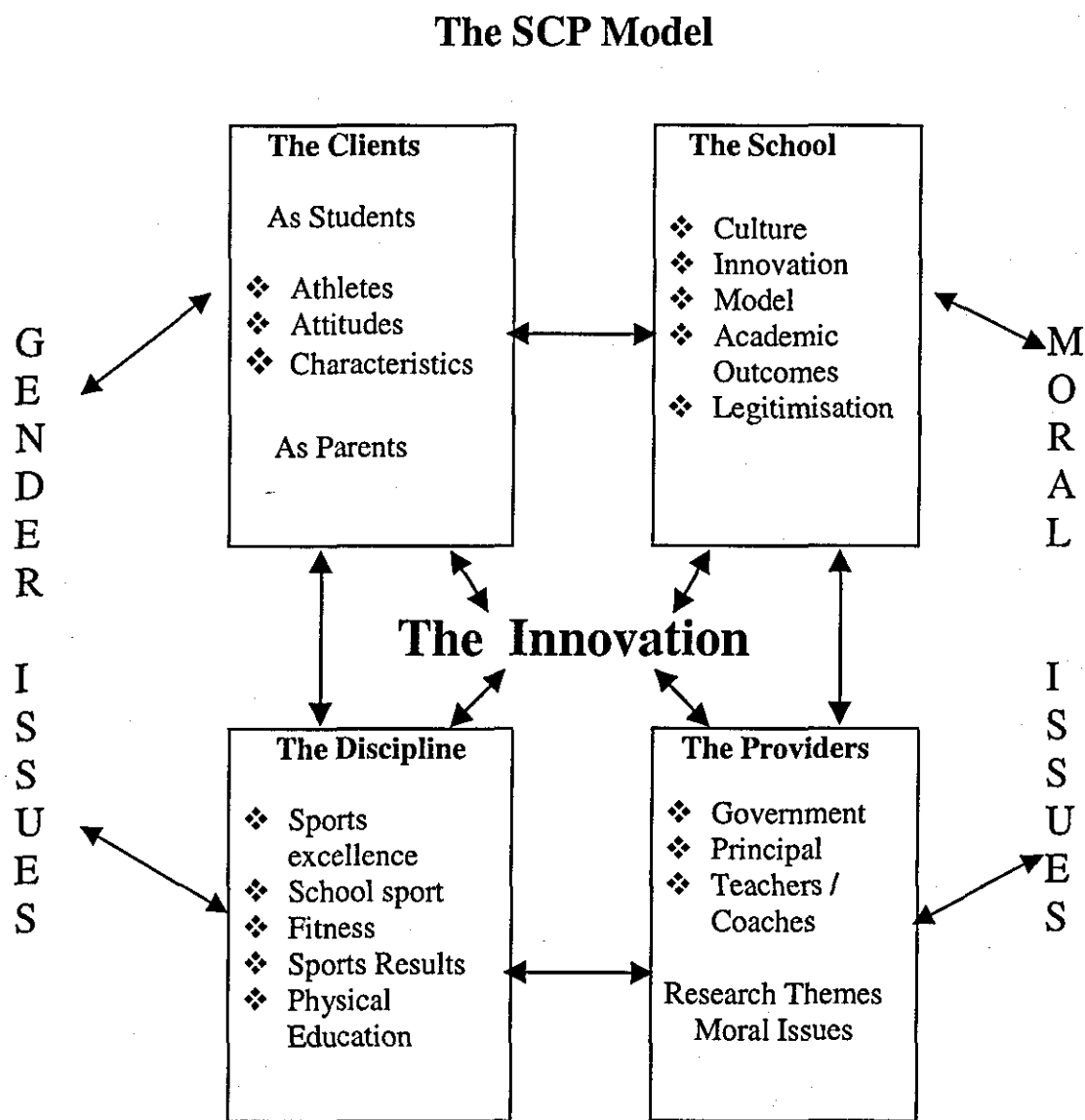
As the data collected for Webb's Play-professional Continuum was ordinal in nature the non-parametric Kruskal-Wallis Test was applied to the cohort data from Year 1, 2, 3 and 4 and a Mann Whitney U was performed on the Year 4 data, to highlight any difference between the two populations. (For a fuller interpretation and tabulation of all scientific data please refer to Appendices 9-15.)

5.5 The Conceptual Framework

The results of the comprehensive analysis will be presented through four themes that emerged as being the most important areas of investigation in the study. A conceptual framework of the analytical model is presented in Figure 5.2 as 'The SCP Model' that will be used to interpret and articulate the development of the four themes, which are:

- ◆ The Clients;
- ◆ The School;
- ◆ The Discipline of Physical Education; and
- ◆ The Providers.

Figure 5.2: The SCP Model



In Figure 5.2 'Gender Issues' and 'Moral Issues' are stressed, as unintended effects that impacted on the programme and surfaced during the implementation. Although the four themes are inextricably intertwined, each will be discussed descriptively in separate chapters and the naturalist paradigm will substantiate the findings as they unfold. Owing to the volume and diversity of inquiry, over the period of study, details of all experimentation will be addressed in the appendices as separate topics.

Part 2

Results and Discussion

Chapter 6

The Clients

This Chapter will review factors, such as sport specialisation and gender issues that are relevant to the young pupils as clients of the SCP and will discuss the multitude of observations and research findings emanating from the longitudinal design. In addition, a number of different psychosocial perspectives, such as friendship, self-esteem and competitiveness that were analysed over the four-year period, will be triangulated to validate the significance of the whole project for the pupils. It is suggested that the content of this chapter is significant, as it attempts to define the full impact of the innovation on the pupils' attitudes and values, while trying to offer an understanding of their psychosocial configuration. The role of the parents, as clients, will be interpreted from data in the pupils' questionnaires, as well as data from the interviews conducted with the players, the coaches and the Principal.

The first attempt to interpret and appreciate the opinions of the CHS pupils came in the second year of the study, when both groups (NSC and SCP) were given separate questionnaires, which sought a better understanding of sport specialisation from two different perspectives. This insight was backed up subsequently by a battery of assessments to measure characteristics such as task and ego orientations, self-esteem and motivation. Private, in-depth interviews were held personally with every pupil that was selected for the SCP in Secondary 1 and this data was analysed both quantitatively as well as qualitatively to define the players' perspective more accurately.

6.1 Outcomes of Sport Specialisation

In terms of sport specialisation, Gummerson (1992:19) defined the 14-16 years age group of the SCP players as a "development of excellence" period, where young people should

select at least one sport for specialisation. In this respect, the SCP model seemed chronologically appropriate, however, a narrow, intensive specialisation over this four-year adolescent period can be considered as a limiting factor in the pupils' overall sporting development. The literature review (see Fisher, 1987; Bailey and Martin, 1988; etc, p.48) suggests that early specialisation does not always produce elite adult performers but, rather, contributes to the wastage of many talented young people. Although early specialisation usually concerns a much younger age group, its implications were therefore not specifically or chronologically relevant to this study. Nevertheless, outcomes from intensive participation, which include the occurrence of burnout, disillusionment and over-use injuries⁷³ (refer to p.48), are similar and warranted investigation.

6.1.1 Over-use Injuries

Over-use injuries are reported to be a negative outcome of both early and intensive specialisation (see: Armstrong and Welsman, 1997; Cahill and Pearl, 1993; Campbell, 1992; Gilroy, 1993; Smoll, Magill and Ash, 1988). However, evidence of such injuries, reported by the SCP players in a Secondary 4 questionnaire, was scant, as none of the reported injuries appeared to be chronic or serious enough to force the individual out of sport, other than temporarily. Less than one in five (18%) pupils was injured frequently and more than three-quarters (78%) reported that they were seldom injured⁷⁴. Additionally, when assessing the programme from an intense (temporal) perspective, there did not appear to be a serious problem associated with injuries having a negative affect on the programme outcomes. It is apparent, however, referring to Table 6.1, that the incidence of injury increased dramatically in the first four months of Secondary 4 (refer to Appendix 21 for a full injury analysis), a period just prior to the final championships. The incidence of injury in Secondary 4 is comparatively high because the duration of the sporting calendar in this year of the programme is relatively short (four and a half months).

⁷³ For a full analysis of injuries refer to Appendix 21.

⁷⁴ The nature of the sports would also play a part in this.

Table 6.1: Incidence of SCP Injuries

Year	No.
Secondary 1	60
Secondary 2	84
Secondary 3	83
Secondary 4	69

The incidence and severity⁷⁵ of reported injuries, however, should not cause much anxiety as they represent slight and infrequent occurrences and are subjectively anecdotal in nature.

6.1.2 Disillusionment

Disillusionment (refer to p.49) was also considered to be a negative consequence of intensive sports specialisation, however, any disillusionment caused by participating in the SCP, was only implied during the players' interviews. This occurred when a few of the players indicated that they had already experienced enough of their specialisation and a third of them stated that they would not continue with their sport after leaving CHS. This figure included more than half the girls, almost three-quarters from basketball, as well as those non-team pupils, who remained in the programme. This quantity indicates a substantial level of disaffection with sport and could possibly reflect a wider social condition, where girls tend to drop out of sport at this stage in their maturation. However, it may also indicate that in the educational culture of Singapore, sport was over and it was now down to the serious business of studies for the SCP players. This feeling may have been created by the pressure pupils had experienced within a programme that offered them vestiges of academic support, in the knowledge that there would be no such assistance available in the future. This disaffection possibly indicates the consequence of pursuing one sport intensely for four years in that it had lost some glamour and also might reflect the disillusionment felt by those, who were still in the programme but had never represented the school. Altogether, almost a quarter of interviewees indicated that

⁷⁵ Only two chronic injuries were reported, one was a hamstring injury and the other was a knee injury.

they had never played for the school during their SCP life (22% girls/26% boys) mostly from the badminton group⁷⁶ (32%). Although there were fewer players from basketball (25%) that had never represented the school, there was only one girl from table tennis that had this unfortunate status.

Evidence supporting this notion of disillusionment was produced in an analysis of the CATPA inventory (refer to Table 6.2. and Appendix 10 for a full CATPA analysis).

Table 6.2: Mean Differences between SCP and NSC in Pre-Post CATPA Tests

Rank	Variable	NSC		SCP	
		Mean	SD	Mean	SD
1	Health Benefit	24.05	1.9876	24.45	1.5090
2	Social Continuity	22.33	3.3447	22.50	2.8682
3	Catharsis	21.71	3.7286	21.61	3.8646
4	Social Growth	20.81	3.0157	21.32	2.6794
5	Health Enjoyment	20.73	3.7114	21.28	3.7616
6	Aesthetic	18.51	4.6215	18.59	3.7530
7	Vertigo	17.98	4.0901	17.26	3.9476
8	Ascetic	14.49	4.0402	15.67	4.9163

Table 6.2 shows better results for the SCP pupils in most variables with the exception of Catharsis and Vertigo indicating a slightly more positive value towards physical activity for the SCP pupils overall. The variable 'Vertigo' (thrill-seeking/excitement), however, is one of two variables with a lower score for the SCP pupils. Although the difference in 'Catharsis' (stress reduction), the other variable, is negligible, the difference in 'excitement' is surprising, but perhaps the allure of competitive sports was not an internalised passion and was becoming a bore, somewhat dulling the players' perceptions.

This disaffection with sport could also be a consequence of the single, but intense specialisation that caused the basketball coach concern. In his final interview⁷⁷, there was

⁷⁶ More boys were affected than girls in the badminton group and in the basketball group.

⁷⁷ Final interviews were conducted with the SCP teachers-in-charge in 1997.

evidence that he considered this factor to be a limiting aspect of the programme design and a restriction on the SCP pupils' all-round sports appreciation. Several basketball players also mentioned that the school prohibited them for playing for outside teams, but ironically, the schools that were winning championships, all had players competing for teams outside of school. This rule, thought to be in the players' best interests as a compromise between studies and play, was, however, not imposed upon badminton players.

6.1.3 Sport Participation

Contrary to the notion of disaffection, almost two-thirds of the pupils⁷⁸ reported that they regularly participated in a sport outside of school, other than their ECA⁷⁹, indicating that school sport did not entirely dominate their lives and that there was some diversity between their social and competitive activities. Badminton girls were the exception, as most of them played badminton only in school and had no other sporting interest outside. If Hemery's (1986) point is to be taken literally, it is important that young people continue to have diversified interests, as many of the world's most talented sportsmen only began to specialise after the age of 16. Producing national talent generally, and in Singapore particularly, is therefore, more complicated than just processing young people through a skills training programme, although this concept appears to be chronologically appropriate in certain sports: two of the three sports⁸⁰ featured in the SCP.

6.1.4 SCP Selection Criteria

Data⁸¹ on selection criteria, accumulated since 1984 by the English Football Association's School of Excellence at Lilleshall, had shown that as a consequence of inaccurate predictions, size had become less of a factor in the School's selection procedures of 15 year-old boys. This was consistent with the literature review (refer to

⁷⁸ Equal numbers of girls and boys.

⁷⁹ This Extra Curricular Activity happened to be their sport specialisation.

⁸⁰ Badminton and table tennis appear to tie in with this perspective, whereas basketball does not.

⁸¹ Information gleaned from an interview with Tony Pickerin, the Director of the School in 1994.

p.68) that revealed doubts about early selection being effective in many sports for future high level achievement and, in Singapore, the CHS coaches also reported experiencing difficulty in this procedure. As there was an urgency and expediency in the selection of the pupils for the SCP, so that the academic classes could be straightened out, the significant impact of this operation to select the most appropriate children was being overlooked.

6.2 Psychosocial Characteristics

The psychosocial effects of young people's sport participation were highlighted in the literature as important factors in the development of sports excellence. By considering the values, attitudes and opinions of the players as outcomes of participation in the SCP, the psychosocial effects help to define the programme's success in the manner it impacts on the pupils

6.2.1 Friendship

The power of peer relationships surfaced in Secondary 2 in the SCP Questionnaire (refer to Appendix 4 for a full report) when more than two-thirds (69%) of the players stated that 'being with friends' was an initial reason for application to join the programme, as it made school-life more enjoyable. This indicates the importance of peer relationships in the selection of subjects or courses for the secondary school and might also demonstrate how little support pupils receive from their parents. Thompson (1993) stated that sport provided one of the few opportunities for children to work together as a team and provided a vehicle for emotional satisfaction and these characteristics turned out to be dominant features in the study's findings. The Principal himself believed that camaraderie singularly provided students with the moral strength to work harder, to excel in their studies and also that this factor was common to every SCP pupil. One non-team basketball girl (interviewee: 40) stated that:

I'd like to say that the sports class builds a very strong sense of friendship, because in a sense you are isolated from other classes. So it sort of builds up friendship. So in the

past, maybe the ECA have been competing to see who gets the most championships, now its like we work with each other and help each other out.

Another interviewee (badminton, boy: 54) described this bonding process differently:

The rest of the pupils in the school said that the sports class is so united because we do not have other friends from outside, that's why we only got each other....but I don't think so, because all of us have the same ambitions. We have a hunger to win. That's why we are so close.

The previous statement implies a perception of an elitist image of the SCP by the NSC pupils and it may have been this exclusivity that helped to create or develop deeper levels of social bonding within the programme.

The literature review contains considerable evidence that being good at sport was an asset for peer acceptance. This was substantiated by Harter's Self-Perception Inventory⁸² (refer to Appendix 14b), when the SCP score ($n=40$, $M=2.915 \pm 0.5921$) was significantly higher for 'social acceptance' than the NSC score ($n=42$, $M=2.666 \pm 0.5295$) at the .05 level.

One of the major social benefits for the pupils was the power of camaraderie that existed amongst the players, who reported⁸³ that the friendships gained were perhaps the most important bonus from participation in the SCP. During their second year in the SCP, all members attended 'Camp Discovery'; an out-of-school programme designed to foster teamwork and leadership attributes. From some of the interview responses, this workshop was singularly responsible for the social bonding that turned out to be the weapon that the pupils developed against the pressure produced by academic accreditation. Social bonding was the major factor, in the Principal's eyes, that enabled the SCP pupils to cope with the pressures placed on them through their sport and their studies. The players' morale and team spirit provided the social glue as well as the determination to succeed, not only in their sport but also in their studies. More boys (70%) than girls (45%) indicated, in their interviews, that morale in the SCP was better

⁸² More detailed information from Harter's inventory will be addressed later in this chapter (6.3.5).

⁸³ This was reported in many of the players interviews, conducted in 1996 and 1997.

than it had been in Secondary 1 and 2 and growing, but a further 23% (girls: 39%) suggested that it was just the same as always. Although perceptions of good morale appeared to be less obvious in the table tennis group (64%) and mainly experienced by the boys, four out of five players gave SCP morale a positive definition. One of the table-tennis girls (interviewee: 22) said:

During Secondary 1, we were all in our own cliques, table-tennis in one group, badminton in another; express and special classes they are different, so there were many different groups. But as we sort of communicated more, then we became closer and so we now have high morale and confidence. All of us are very good friends.

A small number of girls, all table tennis team players, recorded a significant change in attitude towards 'social continuity' during the study⁸⁴. In their coach's opinion (1997), this cohort was special, as they were putting unusual effort into their training, so that the bonding effect was greater and this was further reflected in their performance.

6.2.2 Players Opinions and Attitudes

Questionnaire responses from SCP players (n=67), in Secondary 2, indicated that the enjoyment from sports at primary school was a powerful influence on their decision to join the programme. This, coupled with a personal desire (91%) to improve performance in their chosen activity, was the major reason for wanting to join the SCP. It was interesting that half the players (52%) had 'strong' sporting ambitions, yet only 15%, mainly boys, had ambitions of becoming professional sports-people. Later on, during the players' interviews, the percentage that listed sporting achievement as one of their future objectives had dropped to 8%, almost half, and this was now similar for boys and girls. Given the specialised nature and status of the SCP, it might have been expected that these figures should have been higher, as it is likely that, in the UK for example, most boys of this age, involved in excellence programmes, would dream of becoming professional sportsmen. However, in Singapore there are only a few local sports professionals to act

⁸⁴ Refer to Appendix 10.

as role models and although there are government initiatives to achieve sporting excellence, sport, in the opinion of the author, is still not generally accepted as being truly important.

From their questionnaire responses in Secondary 2, almost half the SCP members had no idea about the programme before coming to CHS and a quarter were quite concerned about joining it. Unfortunately, many members, at this juncture, had no opinion to offer, which could indicate that they hadn't fully considered the implications of playing competitive sport affecting their studies or maybe simply that they could not remember. Additionally, it could perhaps indicate some weakness in the CHS recruitment policy as well as the SCP marketing procedures, because there might well have been inadequate information available, prior to the pupils entering the school.

6.2.2.1 CATPA Results for SCP and NSC Pupils

The consistency in the pre-post test results (1994 & 1997) of the CATPA⁸⁵ inventory give a positive reflection of the SCP, particularly as NSC results deteriorated over the same time frame. Difference in NSC results was found between the two tests, reflecting lower values across the scale ($z=-3.839$, $p<0.001$). NSC pupils reported lower values in three physical activity variables: Health Benefits ($p=0.017$), Health Enjoyment ($p=0.012$) and Ascetic ($p=0.028$), indicating that they perceived lower benefits in health/fitness, they now enjoyed it less and its role as 'being hard work and having to make sacrifices' was appreciated less. In the NSC, overall difference was found for both girls ($z=-2.138$, $p=0.032$) and boys ($z=-3.413$, $p<0.001$). Although no variable was different for girls, the NSC boys accorded Health Enjoyment a lower value in Secondary 4 ($z=-2.067$, $p=0.039$), indicating that physical activity was less enjoyable as they grew older. By comparison, there was no difference in the overall SCP results between the two tests for boys or girls, indicating that values for physical activity in the SCP were retained and no significant deterioration had occurred.

⁸⁵ Full report in Appendix 10.

However, the players, particularly the girls, displayed little enthusiasm before the Multistage Fitness Test and appeared reluctant to participate. Also, during the test, many girls gave up without any visible effort, demonstrating lower levels of arousal than boys. This response was surprising, given that the annual NAPFA test was imminent and the Multistage could have been used as a barometer of their fitness status. This lack of enthusiasm ties in with the players' attitude towards 'ascetic', as defined by CATPA, as this was the lowest ranked variable; the only variable with a negative mean value and one of the variables that showed a significant deterioration between the tests.

The absolute value of a variable in the CATPA test was expressed as a score out of 25: a mean score of 15 and above was therefore considered to be a positive value. In 1994, all scores were in excess of 15, the lowest being 'Ascetic' ($M=15.7284 \pm 4.5360$), but in 1997, the results, although similar, were lower, but 'Ascetic' registered a mean value of 14.358 (± 4.3798), indicating marginally negative connotations for physical activity in the total school sample. Owing to the fact that physical activity was perceived as hard work, it was not worth the necessary sacrifices, as the pupils matured.

When the two CATPA tests were combined, difference between the SCP and NSC was found in only one variable: Ascetic ($p=0.047$), where the SCP pupils ($M=15.67 \pm 4.9163$) not only expressed a positive impression but also perceived greater value in hard work and sacrifice than the NSC pupils ($M=14.49 \pm 4.0402$), whose opinions can be considered to have a negative orientation [refer back to Table 6.2]. There was no difference found between the two groups in 1994, but difference in 'Health Benefits' ($p=0.024$) and 'Ascetic' ($p=0.042$) emerged in 1997. In 1997, the SCP pupils placed a higher value on Health Benefits ($M=24.47 \pm 1.4423$) and Ascetic ($M=15.37 \pm 5.2165$) than the NSC pupils ($M=23.43 \pm 2.5014$ and 13.47 ± 3.2903 respectively). Thus, the SCP model maintained and supported positive attitudes about the benefits of physical activity.

Further analysis of the CATPA results identified a significant but negative change in the attitude of the badminton girls towards 'social continuity' and 'catharsis'. This can probably be attributed to the number of SCP girls that were non-team players but

attended regular training. In the SCP, non-team players received very little attention, which was almost exclusively reserved for those in the team and they no longer found the training ambience inviting, which may also explain why they were critical of their coach during their interviews. Some attention to these needs would have generated a better harmony in the group and would have helped these players cope with the disappointment of not being selected for the school team, adding to their feelings of self-worth.

6.2.3 Task and Ego Orientations

Nicholls (1980) and Vallerand (1987) argued that the very nature of sport evokes ego involvement encouraging inter-personal relationships, however the Task and Ego Inventory found that this was not the SCP case, for boys or for girls (refer to Appendix 11 for a full report). Even when compared with the NSC results (refer to Table 6.3), no significant difference was found.

Although NSC girls recorded marginally lower mean scores for ego and higher mean scores for task orientations than their SCP contemporaries and SCP boys had higher mean scores than their NSC schoolmates in both orientations, both populations displayed similar dispositions for competitive sport.

Table 6.3: Task and Ego Orientation Results for SCP and NSC Pupils

Group		Ego-orientation		Task-orientation	
		Mean	SD	Mean	SD
Total Sample	n=121	3.09	0.76	4.26	0.43
NSC	n=69	3.07	0.71	4.24	0.40
NSC Girls	n=36	3.01	0.73	4.26	0.44
NSC Boys	n=33	3.13	0.69	4.23	0.38
SCP	n=52	3.13	0.84	4.27	0.47
SCP Girls	n=26	3.04	1.02	4.21	0.49
SCP Boys	n=26	3.21	0.62	4.33	0.43

As every group displayed mean difference between Task and Ego orientations, a t-test for paired samples was applied to both variables. The t-test identified significant difference

between the task and ego orientations of the whole CHS population ($t=-14.729$, df 120, $p<0.001$) and as the results in Table 6.4 show, differences existed within the SCP and NSC groups, for girls as well as boys⁸⁶. The results indicated that CHS pupils were more task than ego orientated, which is unusual for 'elite' athletes, but may be indicative that, in fact, they were not elite.

Table 6.4: Differences between Task and Ego Orientations

NSC	n=69	$t = -12.210$, df 68, $p<0.001$
NSC girls	n=36	$t = - 8.793$, df 35, $p<0.001$
NSC boys	n=33	$t = - 8.469$, df 32, $p<0.001$
SCP	n=52	$t = - 8.607$, df 51, $p<0.001$
SCP girls	n=26	$t = - 5.348$, df 26, $p<0.001$
SCP boys	n=26	$t = - 7.210$, df 26, $p<0.001$

General Linear Model (GLM) multivariate analysis indicated that no significant difference existed between the task and ego orientations of the SCP and NSC or even between the girls or boys; neither was there any difference between the girls and boys in the SCP. This indicates that all CHS pupils have a dominant task orientation and suggests that the SCP does not influence this characteristic. Results also suggest that, within the Chinese environment of a Singapore autonomous school, sport does not appear to alter the pupils' normal task orientation. However, as higher task values are important for future participation and enjoyment (Fox, 1996), the results suggest that the players have values appropriate for an ongoing participation in sport. Although interviews indicated that fewer than half (43%) would continue with sport at Junior College (JC), many more boys (62%) than girls (25%), consistent with Whitehead's (1993) judgement, stated that they would participate further and more positive responses came from table tennis players (57%) than any other group. Alternatively, if an ego orientation is necessary for a successful competitive attitude, lower ego scores may indicate that the SCP conditions were not meeting the level of excellence necessary for top-level performance, as the players were overly task oriented.

⁸⁶ Multiple t-tests on the same data may abuse the alpha value and therefore can be unreliable, unless a Bonferroni adjustment is used. As the significance for all groups was $p<0.001$, there is substantial allowance for the values being significant.

It has been shown by many (see: Biddle, 1993; Duda, 1989, 1996; Fox, 1996; Nicholls, 1992) that ego orientation connected self-worth directly with performance and once again this study supports an alternative position. Harter's Self Perception Profile for Adolescents (Appendix 14b) found no meaningful correlation between self-worth and athletic competence for boys or girls in either group. Significant factors from both populations that correlated "modestly" (Cohen and Holliday, 1982: 93) with self-worth are shown in Table 6.5.

Table 6.5: Population Factors Important for Global Self-Worth

Rank	NSC		SCP	
1	Physical Appearance**	.634	Behaviour**	.484
2	Behaviour**	.574	Scholastic Competence**	.418
3	Scholastic Competence**	.544	Physical Appearance**	.404
4	Friendship *	.371		

** sig. at $p=0.01$, *sig. at $p=0.05$ level

In terms of the whole sample, 'athletic competence' correlated significantly with 'social acceptance' only ($p=0.003$; $r=0.326$); although this represents a low correlation, it was true only for the boys, NSC as well as SCP. Sport was obviously a vehicle for boys to make friends and to become more popular, however, girls had no variable that had a meaningful correlation with 'athletic competence'. As a result of the CHS pupils' strong task orientations, there was little evidence of maladaptive achievement striving reported in the interviews, when the players were questioned about honesty and cheating.

Nicholls (1989) suggested that adolescents had the capacity to adopt both task and ego orientations and Fox (1994) found that sportsmen with high orientations in each were more motivated. Overall, a balance was considered to be most beneficial and this is essentially what the results indicated, as the pupils had high task and moderate ego orientations, which located their values about three-quarters of the way up the motivation scale. Generally, it seems that children, who are ego oriented, enjoy sport less, but this was not the SCP case, as 80% of the players reported that sport was equally, or more,

enjoyable than it had been at the very beginning: opinions that supported their task orientation.

In agreement with Duda's (1989) results, there was a consistent relationship between the task and ego orientations of the pupils and the Purpose of Sport Inventory (POS) responses (Appendix 12), that are listed in Table 6.6. All boys' and girls' sports groups placed 'mastery/co-operation' as the most important factor in playing sport, providing a 'physically active lifestyle' was placed second and the role of competitiveness ranked 5th out of the seven variables. This serves to underline a mastery orientation, however, there may be a need for greater competitiveness in the future, if the players are to be more successful in the sporting arena, particularly if the school's goal is to develop talent of a national standard. GLM multivariate analysis of the POS responses found a significant difference ($F=2.549$, $df= 7,111$ [$p=0.018$]) between the opinions of SCP and the NSC pupils.

Table 6.6: Rank Order for "Purpose of Sport" Characteristics

Characteristic	NSC girls	All other groups
Mastery / Co-operation	2*	1
Physically Active Lifestyle	1*	2
Self-esteem	3	3
Good citizen	4	4
Competitiveness	5	5
High Status Career	6	6
Social status / getting ahead	7	7

(1 was accorded the highest status and 7 the lowest status)

Tests of between subject effects found a significant difference in 'competitiveness' ($p<0.001$), 'self-esteem' ($p<0.001$) and 'achieving a high status career' ($p=0.042$). Higher scores (Table 6.7), suggested that SCP players felt that sport made them more competitive, contributed to higher self-esteem and was more of a factor in achieving a high status career.

Table 6.7: Means of Significant Variables in the Purpose of Sport Inventory

	Competitiveness		Self-esteem		High status career	
	Mean	SD	Mean	SD	Mean	SD
NSC	2.8261	.4604	3.4565	.5046	2.5676	.5163
SCP	3.0913	.4781	3.7468	.4168	2.7692	.5405

The SCP players' focus on task demands and personal progress rather than their capacity relative to others, indicates a potential to maintain their motivation at a high level (Roberts, 1984). It was unnecessary, therefore, to make adjustments towards task involvement and away from ego involvement, as this was already successful and the SCP, simultaneously, maintained a pool of available players, which is sound coaching practice (Roberts, 1984). It is difficult to ascertain, however, whether the players' task involvement levels were a direct product of quality adult leadership that provided positively structured sport experiences, as Byrne (1993) has suggested is a successful model. This is because of the mixed signals reported in the interviews about the style and quality of coaching⁸⁷, particularly by girls. As NSC pupils also had task profiles, it is likely to be a wider school phenomenon and not solely a product of the SCP, although it can be stated that the programme was responsible for maintaining this motivational status. A report by the Straits Times (25 April, 1997) suggested that in national competitions some of the CHS players were not sufficiently motivated, because positive motivation was the reason given for Paya Lebar Methodist Girls School's 4-1 triumph over CHS, the favourite, in the national badminton final. This suggestion is supported by players' interview data, conducted well before this final, when the most popular response to the question: Why does CHS lose in national competitions? is shown in Table 6.8 (subsequent reasons can be found in Appendix 7b), where motivation was perceived as a greater problem by girls.

⁸⁷A more detailed description of coaching will be found in Chapter 8

Table 6.8: Main Reason for CHS Losing in National Competitions

Rank	Reason :	Total (%)	Girls (%)	Boys (%)
	Other schools			
1	Have more team spirit, better motivation, more enthusiasm, better attitude and more confidence	21	27	15

6.2.3.1 Winning as an Ego Orientation

There was negligible evidence from the interview data of any unhealthy pre-occupation with winning (an ego orientation) overriding the perception of fair play and sportsmanship. The players' responses to an open-ended question are quantified in Table 6.9 and indicate that although winning was essential, playing well and working towards mastery had greater importance.

Table 6.9: The Most Satisfying Characteristics of Playing My Sport

Rank	Characteristic	Total (%) (n=58)
1	Winning	24
2	Playing well / doing my best	17
3	Improving/mastering skills	12
4	Match play	7
5=	Playing as a team	5
5=	Shooting and scoring	5

Most of those (less than 10%), who considered cheating as a recognised part of the game, only cheated as a responsive action 'hitting back', rather than a causal behaviour 'hitting out'. One of the basketball girls (interviewee: 8) reported that:

It comes from the discipline. For our school players, no matter boys or girls, we are rather gentle on the court. When we see others playing against the rules, we really do lose out, because we don't actually hit people around or anything. We will try to a bit, only because I got hit. Sometimes we get really hurt.....

Evidence, therefore, supports the position that SCP players were intrinsically involved in their sport and so their attitude towards competition can be considered as healthy and one likely to develop their sporting interest further. The pupils' task orientation manifested itself in strong peer friendship and team spirit, which played a powerful role in reducing anxiety, enabling the resultant co-operation to support their academic trials and tribulations. Thus, the players' task orientations represent a positive finding about the status of the SCP, as a programme for developing sporting talent.

6.2.4 Intrinsic and Extrinsic Values

Kretchmar (1992) posited that the internal qualities of justice, honesty and courage were ends in themselves and therefore represented excellences. The SCP players not only recognised these intrinsic qualities but also possessed them. This was confirmed in personal interviews, when almost two-thirds (64%), more girls (76%) than boys (53%) thought that honesty in sport was an internal quality and was their personal responsibility. This was thought most strongly by the table tennis girls (83%). When asked about the role of the school, the SCP and the team in promoting honest practice, two thirds (67%), more girls (72%) than boys (61%), still identified themselves as the source of honesty, with basketball players (79%) favouring this answer most. Conversely, one in seven (14%) from basketball, twice as many boys (19%) as girls (10%), felt that honesty had no intrinsic reward, whatsoever. This highlights some potential differences between team and individual sports and may also indicate that the degree of honesty could be sport specific, being less of a requirement in some than in others. Therefore, honesty, as an excellence, is shown as a personal quality that is present in the majority of players, especially the girls, and is a strong factor in the assessment of the calibre of pupil within the SCP.

Intrinsic values were further highlighted in the interviews, when the SCP pupils nominated, on a four-point scale, how important extrinsic factors⁸⁸ were, when

⁸⁸ Factors such as 1) the results of games, 2) winning trophies, 3) being praised by coach and team-mates were suggested to the players.

participating in sport. Although both genders ranked 'important' as number 1 (refer to Table 6.10) and other previously mentioned responses about winning were relatively equal, there is considerable difference between girls' and boys' results, with boys displaying a stronger extrinsic orientation.

Table 6.10: The Importance of Extrinsic Factors to SCP Pupils (n=63)

Rank	Category	Whole Group (%)	Girls (%)	Boys (%)
1	Important	59	66	52
2	Very important	22	9	35
3	Not important	16	25	6.5
4	Extremely important	3	0	6.5

Nine out of ten SCP girls (91%) were at the lower end of the 'importance' scale compared to only six out of ten SCP boys (59%). Two out of five boys (42%) were at the higher end of the scale compared to only one in ten (9%) girls, indicating the relative value of extrinsic rewards for boys in their competitive sport participation.

The Sport Motivation Scale (SMS) confirmed these findings, as boys were significantly higher than girls in levels of extrinsic motivation. The results in Table 6.11 indicate that the SCP pupils value all sub-scales slightly higher than the NSC and GLM analysis of the

Table 6.11: Sport Motivation Scale Means for SCP (n=52) and NSC (n=69)

Motivation Sub-scales	NSC M	SD	SCP M	SD
Amotivation	3.00	1.24	3.54	1.29
External Regulation	3.03	1.14	3.39	1.16
External Introjection	3.89	1.00	4.24	1.10
External Identification	4.17	1.27	4.72	1.09
Intrinsic Motivation to Know	4.74	1.12	4.90	1.19
Intrinsic Motivation to Experience Stimulation	4.82	1.07	5.11	1.03
Intrinsic Motivation towards Accomplishments	5.26	1.07	5.34	1.07

CHS responses revealed a significant difference ($F=2.536$, $df=7$, 111 [$p=0.019$]) between the two groups. Thus, the scheme was having a direct influence over the intrinsic and extrinsic values of the players and tests of between subject effects found a significant difference in 'amotivation' ($p=0.020$) and 'external means of identification' ($p=0.014$). It is also surprising that SCP pupils valued 'amotivation' more highly than 'external regulation', indicating that sports players perceived a higher level of incompetence and lack of control than NSC pupils, when participating in sport.

In a state of amotivation, athletes cannot identify any good reason why they continue to train and consequently, some may give up practising their sport altogether. However, the opinions of the non-team players, who were confused and disappointed with their role in the SCP, could have influenced this result. SCP pupils also had a higher value ($p=0.014$) for 'external identification' showing that they considered their involvement in sport was an important part of their personal development.

The SCP and NSC were further compared to ascertain if there was a significant difference due to gender. GLM analysis found a significant difference in gender ($F=3.456$, $df=7$, 111 [$p=0.002$]) as well as between SCP and NSC pupils ($F=2.272$, $df=7$, 111 [$p=0.034$]). The NSC boys (M 4.67) were significantly different to the SCP boys (M 5.41) ($F=2.309$, $df=7$, 51 [$p=0.040$]). The tests of between subject effects indicated only that there was a greater need for 'excitement and stimulation' through sport for the SCP boys ($p=0.004$)⁸⁹. A significant difference was again found in the results between NSC and SCP girls ($F=2.467$, $df=7$, 54 [$p=0.028$]). Tests of between subject effects found significant differences in 'amotivation' ($p=0.017$) and 'external identification' ($p=0.012$) with SCP girls having higher values in both variables (refer to Table 6.12). The number of SCP girls that felt superfluous to the programme probably caused the higher 'amotivation' score.

⁸⁹ For boys, the 'intrinsic motivation to know' variable was just outside the acceptable level of significance at $p=0.059$.

Table 6.12: Amotivation and External Identification Means for Girls

Girls	Amotivation		External Identification	
	Mean	SD	Mean	SD
NSC (n=36)	2.9861	1.3640	3.7917	1.2152
SCP (n=26)	3.8077	1.2089	4.5962	1.2085

Finally the total sample was analysed for differences between boys and girls at CHS and GLM analysis found a significant difference ($p=0.002$) between their scores (refer to Table 6.13).

Table 6.13: SMS Mean Values for CHS Boys and Girls.

Motivation Sub-scales	Boys Values		Girls Values	
	Mean	SD	Mean	SD
Amotivation	3.13	1.21	3.33	1.35
External Regulation	3.65	1.04	2.74	1.11
External Introjection	4.28	0.93	3.81	1.12
External Identity	4.70	1.10	4.13	1.27
Intrinsic Stimulation	5.00	1.00	4.89	1.12
Intrinsic Motivation to Know	5.03	1.01	4.60	1.24
Intrinsic Motivation towards Accomplishment	5.46	0.85	5.14	1.23

Differences were significant in four of the seven sub-sets: External Regulation ($p=0.000$), External Identification ($p=0.015$), External Introjection ($p=0.017$) and Intrinsic Motivation to Know ($p=0.023$). Boys gave higher values to all sub-scales with the exception of 'Amotivation', which indicates a stronger association with sport than the girls, with a significantly stronger external focus of influence. This could be because, as Whitehead (1993:115) stated, "boys do more sport than girls" and thus has become more important for them, particularly in Singapore.

6.2.5 Intrinsic versus Extrinsic Values

The three variables representing each of the two main factors⁹⁰ in the SMS inventory were combined to provide a score for each. The scores were then compared using a t-test for paired samples to differentiate between intrinsic and extrinsic motivation⁹¹. The results showed that the SCP as a whole and both girls and boys as separate groups were intrinsically motivated, with similar characteristics found in the NSC pupils (refer to Table 6.14) indicating that all pupils at CHS had similar dispositions. This suggests that the SCP may not produce sufficient extrinsic motivation, a competitive requirement, to make winning more essential, without developing a win-at-all-costs mentality (Porter, 1996) and this may well be considered as a reflection of the macro-sports culture in Singapore.

Table 6.14: Intrinsic versus Extrinsic T-test Results

Group	T-test score
SCP	(t=-8.923, df=51, p<0.001)
SCP Girls	(t=-5.919, df=25, p<0.001)
SCP Boys	(t=-6.639, df=25, p<0.001).
NSC	(t=-10.884, df=68, p<0.001)
NSC Girls	(t=-10.415, df=35, p<0.001)
NSC Boys	(t=-5.970, df=32, p<0.001)

GLM multivariate analysis compared both populations (SCP and NSC) and the results found no difference between the SCP and the NSC intrinsically, but there was a difference between the two groups extrinsically ($F=6.2741$, $df=1$, $p=0.014$). The 'extrinsic' scores for NSC ($M=3.6981 \pm .9316$) and SCP ($M=4.1170 \pm .9236$) indicate that sports players at CHS were more extrinsically oriented than non-sports players, supporting the evidence of the literature review (refer to Fraleigh, 1991; Gilroy, 1993 and Whitehead, 1993). The analysis also found significant difference in extrinsic motivation for gender, as well as the interaction between the NSC and the SCP by gender showing

⁹⁰ The two factors are: 1 intrinsic and 2 extrinsic.

⁹¹ The Bonferroni adjustment was applied to the t-test application so as not to abuse the alpha value.

significance ($F=4.279$, $df 1$, $p=0.041$). When this interaction was investigated, it was found that NSC girls ($M=3.3426 \pm .9017$) were different extrinsically to SCP girls ($M=3.8622 \pm .9712$) [$t=-2.168$, $df=51.544$, $p=0.037$]; conversely, the boys results were found to be significantly different intrinsically ($t=-2.736$, $df=55.067$, $p=0.008$). Judging by the evidence cited in the literature review, it is a little surprising that NSC boys had a lower score for intrinsic motivation ($M=4.9293 \pm .9041$) compared to the sports players' ($M=5.4615 \pm .5832$). It might have been expected that competitive sport would have made the boys more extrinsically rather than intrinsically oriented.

Fraleigh (1991) believed that 'true excellence' belonged in the world of intrinsic values rather than the world of quantifying performance and extrinsic benefits. Contrary to Roberts' (1984) opinion that young people, who survived the sport experience, became more outcome oriented, there was little evidence that this was the case in this study. The results, from both the players' interviews and the SMS results, indicate that the school population in general and the SCP pupils in particular were intrinsically motivated, which represents another factor in support of the players' characteristics for excellence. This could also mean that the players were more fully involved in and concerned with the activity itself, rather than its outcomes and therefore were able to display better performance.

Supporting an intrinsic orientation, almost two thirds of the pupils (65%), more girls (72%) than boys (58%) stated, in their interviews, that the most important feeling, after the game had ended, was to have played well. This was felt most in the table tennis group (79%) and least in the basketball group (58%), probably because table tennis players were more successful in the championships and had higher expectations of doing well. Although the basketball girls produced a bronze medal in the National Championships, they were the team that was least fancied to produce success.

Although the SCP was not identified as the source of honesty in the interviews, the fact that membership did not corrupt their values, indirectly adds weight to the programme's quality. For the notion of inner excellence, Porter (1996) suggested that young players

must value the quality of their performance that enabled them to lose but to feel better about it, essentially through managing the aspects they had control over. In the interviews, two thirds of the girls and four fifths of the boys indicated that they had this capacity and this ties in closely with their task orientation (refer to 6.3.3) and augurs well for their future participation in sport. Rowley (1993) stated that this form of achievement striving made every young player a winner and Wall (1998) added that great players improved because they wanted to, practising continuously to personally drive the process of goal setting. Interviews with the coaches' identified that the quality of perseverance, present in the cohort being studied as well as previous batches of school-team players, was deficient within subsequent SCP cohorts.

Almost all players (95%) reported encouragement to set goals, but the most important person, in this exercise, was the 'self' (75%). Parents and teachers, it was reported, had an equal influence on only 7% of players and other influences like coach, team-mates and friends were seemingly insignificant. This indicates that it was more a feature of their developmental status and schooling than a specific SCP initiative, as a strategy for achievement or for coping with pressure. Almost half the players (48%) had set goals for both sport and studies and there were twice as many boys (65%) as girls (31%) in this category, although relatively equal within each sport. More than a third (37%) of the SCP pupils had set purely study goals, another 5% had set no goals whatsoever, but only two pupils (3%) had set sport goals, which is disappointing.

Duda (1993) and Martens (1996) stressed the importance of goals in the athletic domain being set by the individual and this appeared to be the dominant practice in the study. However, Thorpe (1993) felt that their significance should not be so important that failure would destroy the pupils' self-esteem. Self-determined goal-setting, the style most frequently mentioned in the personal interviews, was believed to lead to enhanced performance relative to imposed goal-setting. The goal-setting process was identified in the players' interviews, but needed a clearer definition and also needed to be more specific for excellence to be achieved, as, in most cases, the players' behavioural goals were vague and confused. Taking Thorpe's (1993) advice, the players' intrinsic

characteristics should be utilised more by the coaches to include a more sport-focused, self-directed training programme. Thorpe (1993) also stated that goal setting was something that the coach could encourage but was only effective when it was well designed for the individual, plus, over-stressing the importance of goals on children's participation could also detract from the experience and stifle future participation. There was no evidence, from the players' interviews, that coaches set training or performance goals, in fact, it seemed as though the pupils had heard about goal-setting from an alternative source and had constructed a wish list, rather than a carefully constructed strategy. The major problem, the players had to contend with daily, was time management, something that was rather mundane and matter of fact to the Principal (interview, 1997).

6.2.6 Self-esteem

Martens (1996) stated that self-esteem, which is synonymous with self-worth, had positive associations with emotional balance, happiness and personal satisfaction, and Fox (1992) suggested that it enabled the student to perform well academically and physically, which in turn provided the potential for strong leadership. Constructs, such as body image and perceived attractiveness, which were related to physical activity, fitness and health⁹² were emerging in the literature as powerful determinants of self-esteem and this appeared to be the case in this study, with a modest correlation ($r= 0.634$) between the two variables (refer to Table 6.5). However, the players' evaluation of their personal attractiveness, although slightly higher than the NSC pupils, fell below the mean of the scale, indicating a mildly negative perception about this characteristic. Fox (1996) along with Roberts and Treasure (1993) posited that the games and sport of the respective culture offered important opportunities for affiliation, self-esteem enhancement, self-perception, responsibility, conformity and subordination of self to the greater good. With the exception of self-esteem enhancement, this proved to be the case but there was no evidence to suggest that sport enhanced self-esteem, as there was no significant difference between the two populations in this factor. Although the SCP pupils believed

⁹² Health in this case is taken to be athletic competence.

that sport improved self-esteem, as reported in the POS Inventory (refer to Table 6.6), when self-esteem was measured specifically by Harter's Inventory (1988), there was no significant difference found between the two populations.

Responsibility, conformity and subordination of self to the greater good were characteristics common to many effective school programmes and, in the case of an autonomous school with a Chinese culture, might have been expected, with or without sport. The SCP alone, therefore, cannot lay claim to these attributes, although subordination for the sake of the programme was an accepted territory for school sport and was demanded to a very high extent in this programme.

Although self-esteem is a complicated domain, the DES (1989) suggested that the aims of Physical Education should focus on the whole child by fostering it in all children through the acquisition of physical competence and poise. If the way young people perceived themselves had a significant effect on their sport participation, then their self-image was of great importance. The SCP players obviously had much more positive opinions about their athletic ability than the NSC (refer to Table 6.15), however, that did not correlate well with global self-worth, as measured by Harter's inventory. Equally, if there is truth in Lee's (1993) and Thompson's (1993) statement that coaches were a powerful influence in a child's self-perception, then there appears to be some deficiency in the coaches' treatment of the players, indicating a lack of sophistication in their approach. In the opinions of the coaches and academic teachers, self-esteem was obviously most at risk in the players that were unable to make the team, as well as those who were dropped from the programme.

Table 6.15: Difference in Athletic Competence between NSC and SCP

	NSC		SCP	
	Mean	SD	Mean	SD
Athletic Competence (girls)	2.0095	0.6587	2.7579***	0.5601
Athletic Competence (boys)	2.2190	0.6226	2.9333***	0.3651

*** = $p < 0.001$.

The low value placed on physical education, by the NSC pupils, might also have had a negative affect on the self-esteem of the SCP players, as sport was perceived, in the culture at large and in this school in particular, to be less important. The kudos associated with being a school-team player was therefore of a lower significance and as such, their athletic ability was not, in contradiction to their POS responses, an attribute of global self-worth: in other words they did not feel 'elite'. The POS inventory results, referring to sport's role in developing self-esteem, as well as Harter's Self-esteem inventory results, indicate that in this Southeast Asian study, sport was found not to have had any significant effect on this characteristic. Though not generalisable, this result may have nothing to do with the programme structure itself, but could well be influenced by the traditional attitude towards the value of sport in Singapore; nevertheless, there is no evidence that the programme has done anything to change this perception.

6.2.6.1 Differences in Self-esteem Between SCP Boys and Girls

As there was evidence in many of the interview responses that the boys were more positive than the girls, it seemed appropriate to investigate self-esteem within the SCP from this perspective (refer to Table 6.16). With the exception of 'close friendship' and 'social acceptance' Harter's inventory produced higher scores for the boys.

Table 6.16: SCP Scores for Self-esteem

Dependent Variable	SCP Girls (n=19)		SCP Boys (n=21)	
	Mean	SD	Mean	SD
Athletic Competence	2.7579	.5601	2.9333	.3651
Behaviour	2.6737	.4012	2.7714	.3862
Friendship	2.9053	.6646	2.7429	.5870
Physical Appearance	2.2947	.7192	2.5333	.4017
Scholastic Competence	2.4211	.4049	2.6667	.4397
Self-worth	2.4842	.7286	2.7143	.5082
Social Acceptance	3.0842	.6300	2.7619	.5239

A GLM analysis found significant difference in self-esteem between SCP boys and girls ($F=2.325$, $df 7.000$, $p=0.049$) with all variables contributing to the overall result (no single dependent variable was significantly different). As shown in Table 6.16, the SCP boys had higher scores in five of the seven variables, including 'global self-worth', confirming the evidence collected during the personal interviews.

6.2.7 Competitiveness

Webb's Play-Professional Continuum (1969) was used to investigate any differences in the players' attitudes towards playing sport more competitively, as they matured. The SCP sample used for analysis included four independent cohorts, namely Secondary 1, 2, 3 and 4. All pupils were asked to rank three values of sport in relation to:

- 1) the value of playing as well as you are able;
- 2) the value of playing fairly; and
- 3) the value of winning.

As the results travel along the continuum from 1-6, the emphasis changes from play at one end towards competitive participation (professionalism) at the other. A mean result of 3.5 represents the midpoint of this spectrum, thus, results greater than 3.5 would indicate a more competitive approach and lower than 3.5 would indicate a more playful approach.

From the scores in Table 6.17, there is an overall increase in competitiveness from Secondary 1 to 4 for the whole sample, with girls having a different pattern from boys. The girls' scores peaked earlier in Secondary 2, while the boys' scores recorded a peak in Secondary 3. The fluctuation in the girls' scores reflects some inconsistency, whereas there is a more positive trend towards a competitive attitude in the boys. In spite of this trend, all mean scores fell short of the mid-point indicating that, even after four years, the pupils had more of a play disposition than a professional mentality, which was not surprising, given their task and intrinsic orientations.

Table 6.17: SCP Play-Professional Continuum Scores

	Overall		Girls		Boys	
	Mean	SD	Mean	SD	Mean	SD
Sec 1	2.76	1.15	2.94	1.25	2.56	1.03
Sec 2	3.11	1.72	3.36	1.68	2.75	1.77
Sec 3	3.11	1.53	2.90	1.45	3.35	1.62
Sec 4	3.28	1.13	3.26	1.05	3.29	1.23

The gradual change in SCP opinion, however, was not significant when measured by Kruskal-Wallis [χ^2 (3, $N=147$) = 3.3513, $p=0.3406$] and this result was also valid for the SCP boys and girls samples independently, as there was no difference in either of their results. Neither was there any difference between SCP boys and SCP girls, indicating a homogeneous sample, in fact, similar values from four independent cohorts may well support the reliability of this study in representing all athletes that participated in the programme. A significant but low correlation ($p=0.038$; $r=0.347$) was found between SCP opinions in Secondary 3 and Secondary 4, however, this was only 'modestly' true for SCP boys ($p=0.041$; $r=0.50$). The results show that the SCP girls were slightly more competitive in their attitude in Secondary 1 & 2 but the SCP boys became more competitive in Secondary 3 and retained similar opinions in Secondary 4 ($r=0.347$).

The NSC pupils were examined only in Secondary 4 and a Mann-Whitney U analysis found them to be less competitive than their respective SCP counterparts [$z=-2.5408$, $p=0.011$]. NSC pupils ($M=2.57 \pm .1293$) were closer to the play end of the continuum compared to the SCP ($M=3.28 \pm 1.1320$). This was equally true for the boys ($z=-2.1902$, $p=0.0285$) but the girls in the NSC ($M=2.67 \pm 1.1547$) and SCP ($M=3.26 \pm 1.0457$) were not found to be significantly different ($z=-1.3525$, $p=0.1762$). It can therefore be safely stated that the SCP pupils are more competitive in their attitude to sport than the NSC pupils.

The collective attributes of conformity, obedience and team spirit, that Lee (1993) said were part of the value of team sports, were very much in evidence in the study across all three sports. However, only one of these could be described as a team sport and these

attributes were most likely to be features of the wider school community. Lee (ibid) also stated that the values, most frequently mentioned by young people, were winning, enjoyment and sportsmanship and again from interview evidence, this held true for the SCP model. The Play-Professional Continuum results indicate that even by the end of the programme, there was a healthy balance between these three elements. In the interviews, the notion of winning was the most popular response, but three-quarters of the players did not think it was necessary to win to experience satisfaction, indicating there was no great preoccupation with winning. Only two out of five (19%) stated that they had to win and these were mainly basketball players (29%). Winning was important, nevertheless, but only to a limited extent and definitely not to the degree that Porter (1996) said might be expected in North America. Although winning is highly regarded in Singapore and the element of being first holds firm, there can be negative consequences. In 1999, two CHS doubles partners, not in the SCP however, left the National Age-Group Bowling Championships⁹³ before the results were announced, because they had incorrectly assumed that they had been unsuccessful in winning anything. The fact that they turned out to be the Under 17 Champions indicates that there was no intrinsic value, for them, in the competition itself or any sportsmanlike regard for their opponents. Further supporting this notion is evidence from Singapore's macro sports culture that if you were not capable of winning, then you would not be selected for national representation, as there was a perception that losing may tarnish the nation's image. This has been a prevalent Singapore National Olympic Council (SNOC) policy in recent years, although enlightenment is winning through and worthy athletes are now being selected to gain experience in international events. Zarinah Abdullah, the top female badminton player in Singapore, became a victim of this prejudice, at a time when she was ranked 12th in the world, as she was not selected for the SEA Games⁹⁴ on account of her poor performance in previous events (Horton, 1999).

The players responded with a healthy, balanced opinion about the value of winning during their interviews and there was little evidence of violence, cheating or dissent,

⁹³ This success came about as a result of the enrichment programme the Principal began in 1996 for the NSC pupils. The Bowling Championships are held during the March mid-term holiday.

⁹⁴ SEA Games are the South East Asian games.

characteristics that are often associated with this type of 'win-at-all-costs' mentality. Although basketball was an activity that perhaps intrinsically offered greater opportunity to be dishonest, a male team member (interviewee: 19) stated that:

in the game we try to concentrate and do our best, so even if we cheated I don't think its intentional. Under certain circumstances, of course you have to do so. But most of the time...I mean friendship comes first and competition is second, so I have tried to keep a mutual relationship between me and my opponents. I don't really try to hurt them or foul them.

Another male basketball team player (interviewee: 2) responded in a similar vein:

Yes (referring to cheating), that's part of the game, because sometimes the referee just can't see something. I usually don't cheat, but if the opponent is doing some underhand things, and I just play very fair, I will be on the losing side. So its only being fair to myself.

According to Duda (1989) and Fraleigh (1995), levels of sportsmanship and aggression in elite males were influenced by intensive participation in competitive sport. Although there was no evidence of this in the interview data or in the Play-Professional Continuum results, the players might not, in real terms, qualify as 'elite'. However, this result might have been anticipated given Singaporean values, the middle-income background of the pupils and the conservative nature of a mission school.

6.2.8 Anxiety

The psychological damage of being dropped or not selected, plus the feeling of being discarded late on and being denied physical education classes, are matters for serious consideration. In 1997, the Principal further modified the programme by reducing the SCP from two classes to one. It was felt that this would inevitably reduce the level of disaffection at the end of Secondary 3, however, the smaller numbers will create management difficulties. Commenting on this emotional stress, one of the male basketball team-players (interviewee: 19) said:

At first I thought it was just classes for sports players. During our fourth year, I think they are going to separate the players (team) from the non-players and most of us are not very happy with that. We have been together for three years and they just scatter us like that. If we don't have so many friends in other classes, we can't really get along with them. Most of us are not very happy. Most of us, means the players as well as the non-players. Actually we don't really know what is going on. That's a worry for me.

Although stress in sport was not excessive for the majority of adolescents (Martens, 1988), stress and anxiety were important elements of competitive sport for children and were at their peak during adolescence (Roberts and Treasure, 1993). Anxiety traits or stress levels were confirmed by three-quarters of those interviewed, particularly girls, who reported experiencing pressure connected with their studies. This data (refer to Appendix 7b) ties in with the CATPA results (refer to Appendix 10b), which indicated that stress increased incrementally throughout the programme for girls and, therefore, may be another factor influencing the girls' critical perspectives. Many girls (40%) also found their attempts to juggle sport and studies quite stressful, which is not altogether surprising, given the frequency and longevity of practice. The academic pressure was further increased for the 22 players from the special stream, who had to study for an "O" level examination in Chinese Language in Secondary 3. Unfortunately, this additional pressure coincided with a concomitant reduction in academic support, which had been promised as an integral part of the programme design. As one ex-SCP table tennis girl said (interviewee: 39):

When the tournaments come, they (*players*) miss classes, all miss together. Then he (*Principal*) said, its like you can train and you can have make-up lessons together, which is crap, because there are three sports, their training times are all different, so in the past two years, we never had make-up lessons.

In their interviews (see Appendix 7b), the SCP pupils suggested that to avoid teaching these make-up lessons, teachers would rush through the syllabus very quickly to complete it in time. This anxiety increased in the latter part of Secondary 3 and in Secondary 4 as their 'O' level examinations approached. Anxiety can become self-perpetuating, leading to mediocre performance and although three out of five pupils experienced tension, while playing for the school-team, only 7%, mainly boys, reported

severe tension in this domain. This performance-related tension was felt mostly by badminton players, especially the girls, and may be directly related to the coach's ambitions and anxieties being transmitted to his players, but it did not appear to be a major problem with the remainder of this cohort. Anxiety about examinations, however, does cause conflicts between sport and schoolwork in mid-adolescence (Rowley, 1993) but this was normal for CHS and was "under control" (Principal, 1997), as there is a continuous pressure surrounding examinations in the Singapore educational milieu.

If the self-perception of ability was important (Roberts and Treasure, 1993), for an understanding of the child within competitive sport, the programme must address the fact that only half the players (53%) thought that they had achieved any significant progress, a similar number to the SCP survey in 1995. It was important to establish SCP perceptions about the extent of this achievement and almost half (45%) reported that they were making a great deal of progress, but once again boys were significantly more positive than girls. Only a few (8%) admitted that they were not making any progress at all, but it was also significant that only half the cohort reported that the coach was getting the best out of them. Finally, a rather high percentage (46%) mentioned that they were no longer in the team, indicating that the programme was catering for only about half the number that was originally selected.

6.2.9 Drop-outs

In adolescence belonging to a sports' team resembles the affiliation to a 'gang' (Lee, 1993), and consequently SCP players, who were not so capable, established a social identity by continuing to attend practice and played a role in assisting the team. In one sense, they were being taken advantage of, but they were nevertheless benefiting from the friendship and privileges of SCP membership, which was making a positive contribution to their self-esteem. However, those pupils who dropped out for one reason or another and had their affiliation severed, became demoralised, something that was not only witnessed by the staff, but also mentioned in the respective personal interviews.

Drop-outs were a natural consequence of participation in sports excellence schemes that, in many cases, sacrificed childhood in the name of sport. Equally, this issue was a negative consequence of the SCP, according to both staff' and pupil' interviews. As a result of being dropped, the players mentioned that their motivation for school was impaired and their personal morale bruised; something that was also noticed and reported by the coaches. However, the problem was not too serious, as many pupils unquestioningly accepted their role within the programme and almost everyone had academic accreditation as their foremost priority, a strategy some used to reduce the pain of failing in sports. Although the distress was transient, it, nevertheless, made an impact on their overall well-being and was something that was forgiven, if not forgotten. Obviously, the depth of emotion depended on timing, as those who were affected early on almost accepted this inevitability and made the transition to a regular class without much fanfare or cost to their ego. In support of this policy, the majority of players reported that it was acceptable to be asked to leave the SCP when they were falling behind in their sport or their studies. A female basketball player (interviewee: 30) who left the SCP after two years said:

I honestly know that I am not up to the standard...I feel that even though I cannot do well in sports, I still have other places I can excel. Its like, I still can join other contests, among other schools, eg. aural composition, Chinese essays etc.

However, the SCP pupils were more aggrieved, when discarded at the beginning of Secondary 4, almost having completed the programme. As the timing was late, it created some emotional backlash and compromised self-esteem and additionally, created concern about moving to a new class, where they knew hardly anyone. Consequently, pupils felt somewhat bitter about this treatment, having sacrificed so much for the school. A table tennis girl (interviewee: 23) said:

Its my academic results, I did badly. I am not sure which class I will be in next year, but it won't be the sports class. I think its better for me not to be in the sports class, because since my results are so bad, I'd rather buck up. Yes, I feel disappointed because I played table tennis since primary 5, I spent a lot of time training. I even trained during the mid-year holidays and I went for some special training also...with another coach from outside.

Although the language expressed may not convey any bitterness, the tone of the interviews most certainly did. The feeling of low morale was first mentioned in the academic staff interviews in Secondary 1 and concerned those players that were training very hard but were not selected for the team. One badminton girl was so disillusioned with the coach that she dropped in and out of training frequently, whilst still maintaining a presence with the SBA⁹⁵, indicating an overall desire to continue to play her sport. Excerpts from her interview (interviewee: 63) are reported next (responses in italics):

Are you still playing in the school team? *No.* Did you play in the school team in the C division? *Yes...* When did you stop playing in the badminton team? *Secondary 3.* What was the reason for that? *I wasn't in the team.... You must be naturally fit or motivated? Not motivated, because now I only come for training once a week, but I've got to go for a club training outside the school, organised by the SBA.* SPEX2000? *Yes.* You are in that scheme, but you are not playing for the school? *Yes.* Isn't that a little bit topsy-turvy? *I don't know...I think the reason why I wasn't in the team this year was because of my attitude. That's what he said. But I think last year was due to my attendance. So I didn't get in the team these two years.....* Is there a personality clash between you and the coach, do you get along with the coach? *I am not very pleased with the coach...* Do you still enjoy your badminton? *Yes.*

This was a girl for whom extrinsic values were very important. Later on, she was asked about her coach and replied thus:

What would you say was his strength? *His strength was in training us up. He is pretty good at that.* What does he do to get the best out of you? *Makes us practise.* For you personally, does he do anything that really makes you perform well? *No.* Does he do anything that makes you perform badly? *Yes.* Such as? *Shouting and screaming.* Would you say your coach was supportive or critical when you are losing? *Critical.* Is that acceptable? *Acceptable, I mean, he is the coach....* Do you feel encouraged when he is critical or do you feel put off? *Put off.* Do you think your coach prepares you to think on court, as a player? *Yes.* When you play matches does he allow you to play your own game or yell at you from the side-line? *He yells.* How does that make you feel? *Nervous.... Can't bring up my form... because... I mean he was watching me from there and he is yelling, quite embarrassing. So...* How would you expect the coach to behave? *Encouraging, maybe ... when I come off.... after I lose, maybe he will encourage me and comfort me instead of shouting, then ignoring me.*

⁹⁵ SBA: Singapore Badminton Association.

The players that felt most aggrieved were those who found themselves unwanted at the end of their third year as a result of weakness in their studies. As they had joined the programme in good faith with the promise of additional academic support, they believed that when they needed this assistance most, it was not available and they naturally felt let down. This came as a shock, particularly to the girls, when, under these circumstances, they had to affiliate to another class and make new social adaptations in their final year at school. This indicates an SCP deficiency in good management and trust, something that is necessary in the development of young athletes. However, on the positive side, the SCP was flexible enough to allow pupils that had been overlooked, in the initial screening, to drop-in and this happened in accordance with good practice, according to Whitehead (1993). Although only two players, at the time of the interview, had reached saturation point and no longer wished to participate, another third (34%), mainly girls (56%), responded negatively by indicating that they did not intend to continue with sport at JC. From a sports development perspective, this quantity is disappointing, however, this amount does include everyone that was dropped from the programme, as well as the non-team players, but, nevertheless, indicates some level of disaffection with sport, particularly from girls.

6.3 Parental Influence

A major shift in mindset is necessary for Singapore parents to accept sport as a complement to academic accreditation, although there is evidence that this is happening, albeit on a very small scale. An increasing number of parents, over the past few years, have allowed their children to pursue sports through overseas scholarships or to postpone public examinations to achieve glory. Sports like badminton, soccer, swimming, gymnastics and yachting have contributed talented youngsters for overseas development to allow their potential to be maximised. Almost all of these athletes have two things in common: they are educationally bright and their parents are well-educated and middle income. New 'all round criteria' for university entrance, highlighted by the government in 1998, will also reassure parents about the value of pursuing sport as well as studies. Consequently more families will be encouraged to commit themselves to developing

sporting potential and this will further support the shift towards sport becoming an integral part of the child's education. However, the current mind-set in Singapore is unquestionably focused on academic accreditation.

The family's role, particularly that of the parents', was well articulated in the literature review (see: Gilroy, 1993; Gallahue and Ozmun, 1995; Malina, 1988; McPherson and Brown, 1988) and as might have been expected, the players reported little direct family involvement at this stage in their maturation. Given the nature of the Singapore sports culture and the fact that many children have both parents working long hours, it may not be any different at any other age, either. The players' peers, as well as the school, appeared to have taken over as the dominant influence on their sporting participation and this supported McPherson's (1988) observations. However, there were two exceptions to this:

1. Michael, was the star of the basketball team with an ambition to play in the NBA and his parents were ex-national players, who still showed an active interest in their son's development through regular observations, practical advice as well as the occasional 'shoot-around' session.
2. Charles, who was also an accomplished player, represented the Singapore Badminton Association through SPEX2000 and was one of the thirteen pupils below the PSLE points level that was accepted in 1994. Charles' father was a businessman, who would often watch his son play in matches, even overseas.

Michael and Charles were two of the very few, whose parent(s) had ever seen them play sport. It was also surprising that many players reported very little communication between their parents and the school coaches, about sporting development or sporting status. In the case of sport, most of the dialogue that occurred in parent-coach interviews was limited and, as reported by the players, it concerned mainly their academic progress. This communication appeared to be more a result of the coach being the form tutor, rather than a direct interest in the child's sport or the SCP. In 1997, however, the SCP form-tutor reported that some parents had been critical about their children's attainment and the way that they had been treated, with some claiming ignorance about the fact that

their child was even in the programme at all. The Principal did indicate some parental discontent, but he considered it to be of little consequence and not much greater than usual at this stage in their schooling. This indicates that public relations in respect of the SCP were not very good and some parents appeared to be mis-informed about their child's participation in the programme. This area of marketing and management has to be improved, if all parents are to be convinced about the programme's merits and about the sacrifices that are necessary to be a member.

The players' interviews indicated that parents had a negative influence on the amount of their sports' participation and a greater involvement in reducing the level of engagement in favour of academic studies, particularly for girls. This was most probably a reflection of the fact, reported in the SCP Questionnaire, that one third of parents did not participate in any form of physical activity themselves. Williamson (1996) inferred that this level of parental involvement produced a less than supportive role and it also reflected the low status of sport in the social consciousness. The Singapore Physical Activity Survey (1998) indicated that only 14% of adults exercised regularly three times a week and 34% once a week, so the number of CHS parents that did exercise appeared to represent a positive influence in the child's participation. A major difference, reported in the Secondary 2 questionnaires, between the parents of SCP and NSC pupils, emerged in that both SCP parents were more currently involved in physical activity (45%) than NSC parents (29%).

Parental participation appeared, in the literature, to be an influence on their children's sport selection and once again the CHS data seemed to correlate with the international picture. There were often provisos, however, that continued sports participation was dependent on players achieving academically and this affected girls (25%) more than boys (16%). Less than half the players (48%), more boys⁹⁶ (55%) than girls (41%), reported regular, positive support from their families, which is disappointing, considering

⁹⁶ Boys also reported receiving more encouragement when either mother or father individually gave support.

that they are involved in a special and demanding project, but not too surprising considering the local culture.

Although girls indicated higher levels of parental participation in physical activity and also higher levels of un-supportive parents, boys reported more positive support from parents. This may reflect vestiges of cultural chauvinism towards the role of women in sport being inferior and supports the survey results, which indicated that in line with Asian values, Singapore parents showed a preference for boys, even in sport. This lack of encouragement supports Fox's (1996) contention that girls were less activity independent and the opinion of Weiss (1993) who believed that continued participation was linked to parental support, which was again lower for girls. In support of this argument, more than twice as many boys (62%) as girls (25%) reported that they would continue with their sport at JC⁹⁷. The data, therefore, supports Fox's contention that girls are socialised less into sport, both culturally as well as through the family, in the Singapore context.

6.4 Gender Issues

Gender was identified as an issue as early as Secondary 2, when differences between boys' and girls' opinions were discovered in the SCP questionnaire. From their responses, boys were more ambitious about sport and more of them entered the programme with greater sporting experience. The results of the SMS conducted in Secondary 3 also supported the assumption that boys enjoyed a stronger association with sport and possessed a stronger external focus of influence. From the pupil interview data (refer to Appendix 7b), where, in the researcher's opinion, the most enlightening information came from, boys (53%) also felt more positive about their sporting progress than girls (44%). Additionally, out of the high percentage of players (94%) that were proud to be in the SCP, there were more boys than girls. As the programme unfolded boys reported, in their interviews, stronger feelings of support for the SCP and felt that it was getting better, whereas girls thought that it was much the same as previously. As far

⁹⁷ Secondary school pupils who qualify attend Junior Colleges after their 'O' Levels.

back as Secondary 2, boys ranked the quality of coaching much higher, but, at this time, girls were much less opinionated; something that had changed dramatically, by the time of the personal interviews.

Subsequent data from different domains also identified differences between boys and girls, which is consistent with Whitehead's (1993) suggestion that boys and girls tend to prefer different types of achievement goals. Whitehead (1993:115) suggested that "victory was clearly more important to boys and social approval for girls". Although many girls supported the programme, there was a substantial difference in their opinions from the boys about different aspects of the programme, suggesting that more consideration should be given to their welfare. However, the way that girls are socialised into sport may be at the crux of the problem, as boys entered the programme at a higher performance level⁹⁸ and perhaps had a better idea of the requirements for competitive sport. From a performance perspective, more SCP girls saw themselves as underachievers and fewer girls had the opportunity to represent the school or played regularly. By the end, more girls were enjoying sport less than previously, in contrast to a larger number of boys, who were intending to continue with sport at JC. More SCP girls reported feeling anxious and more of them struggled to juggle studies and sport, however, this could have been because they were more apprehensive about their studies and their perception could well be associated with their total reaction of being sporty, which is a function of the former. Two major points stand out in magnitude between the two genders:

- 1) twice as many boys would join the SCP all over again, given what they now knew;
- 2) more than twice as many boys would recommend the programme to other schools.

The interview data unquestionably indicates that the programme has been more beneficial for the boys and a greater understanding of adolescent female needs would appear to be necessary in the future. The welfare deficiency that was reported by SCP girls further supports the concept of 'teachers as coaches', advocated by Pickerin (1994) and practised

⁹⁸ This opinion was shared by all the coaches interviewed.

at Millfield, as these professionals could deliver, not only a greater commitment to their charges, but also a greater understanding of their needs. The sports literature labours the point about not treating children as mini-adults, but in this study the message clearly indicates that girls need different treatment from what they were receiving. However, one of the positive findings that emerged favouring the girls, was the fact that they reported greater honesty, when playing sport and more perceived honesty as an intrinsic quality; in other words their honesty was genuine and not imposed by others. Thus, the scheme has merit in the fight against cheating and corruption, as these qualities are excellences that will have value for the players in the future.

The girls' interview opinions were much more critical about the programme and their coaches and these will be discussed in Chapter 9. The coaches, as well as the Principal, who were males, were asked in their final interview about this gender discrepancy and all of them reported that there was no bias whatsoever, in favour of boys or against girls in the programme's operation. This way of thinking could point to a discrepancy in male perceptions, as the coaches' appeared to instruct the girls using different methods that were at odds with the players. The girls were more distressed by the programme's continual changes and they perceived that they were subjected to greater criticism, but the irony was that they achieved more success in the national championships. It is evident from the interview data that a serious revision of the SCP girls' treatment has to be considered.

Reflecting aspects of cultural chauvinism, the girls' badminton coach suggested that it was easier coaching girls in badminton, because "they were more obedient" and as there was less external competition, it was "easier to groom them into good players and create successful teams." Judging from the girls' interview data, he might have misjudged their obedience and compliance, as some described him as autocratic, critical, displaying favouritism and preaching "Chinese moral values". This indicates, along with the responses of the other coaches and the Principal, that there was a general misunderstanding about girls' welfare.

Whitehead (1993) suggested that boys placed a higher emphasis on competition, but there was no evidence of this, if Webb's continuum was an appropriate indicator of this value (see Table 6.16). According to the analysis of results (Kruskal-Wallis) from Webb's Play-Professional Continuum, the change in SCP opinion over four years was not significant [$\chi^2(3, N=147) = 3.3513, p=0.3406$]; similarly for the boys and girls samples measured independently, and neither was there difference between SCP boys and SCP girls. This conclusion was corroborated in the players' interviews where winning was the top priority for boys and girls in equal proportions.

From the interview data, there was no evidence that individual and team athletes had values particular to their sport, although two of the sports could be considered quite similar. However, there was some difference in perceptions, particularly in relation to the coaches, where girls were much more critical and boys were much more supportive. Generally, however, the pupils were very tolerant, very loyal and quite reserved, something, that might have been expected in an autonomous SAP school.

In a 'Women in Sport' Conference held in Singapore, Kunalan (1999), a Singaporean, presented survey findings from a poll conducted with 754 Singapore teachers. He concluded that teachers exhibited a negative bias in the way that they viewed women's participation in sport. He suggested that this might reflect elements of a cultural bias against women and recommended that the old-fashioned mindset needed to be adjusted. This indicates that the residual chauvinism highlighted in Chapter 2 still exists and strongly corroborates this study's findings in relation to the perception and treatment of females in sport. The SCP can have a positive effect on all this patriarchy, if greater attention is paid to the welfare of females. Data from this study has shown the SCP girls appeared to receive different treatment, with the aforementioned results. This is not so much a question of equality but one of looking more carefully into the needs of young women. As the study may represent a microcosm of the sports culture in general and given the findings of the Women in Sport conference, gender may well be an issue that needs greater consideration in the Singapore Coaching Accreditation Scheme.

Chapter 7

The School

This chapter describes the implementation of the SCP model as a curriculum innovation. After a brief discussion of the educational, political and ethnic influences that impact on the initiative, a description of the process and outcomes of the implementation highlights the potential for generalisability and the case for legitimisation.

7.1 Educational, Political and Chinese Culture

In educational terms, Ubben and Hughes (1987:17) suggested that school culture refers to its effectiveness in producing excellences, which, translated into Cathedral's policy, can be interpreted as academic and sporting success in the name of an 'all round education'. The enveloping political climate towards the national importance of sport is changing with greater significance attached to its role of improving Singapore's international status as a developed nation. In support of this notion we can reflect upon Michael Chang's⁹⁹ words, as an a-typical Chinese-American: "I think in Asian households, education is stressed a lot more than athletics. That has changed quite a bit now because parents start to realise....you need to be well-rounded" Straits Times (October,1998).

The government's fiscal support for sport in Singapore is designed to deliver incentives for more citizens to recreate and although this will take time to materialise, sport will eventually become accepted as an integral part of the culture. The role of the Chinese language at CHS was a visible element of the school culture, particularly in relation to sport, as it was an obvious element in the language and behaviour of the coaches. The Chinese language teacher especially, showed what a complex, multifaceted phenomenon culture really is, particularly to an outsider, as he brought moral issues underpinning the Chinese culture from his language classes to his sport; something, however, that was not appreciated by all his students. The sports of badminton, basketball and table tennis, which are mistakenly

⁹⁹ Top ranking international tennis star in Singapore for the 1998 Grand Prix tennis tournament.

assumed to be Chinese in nature¹⁰⁰, perfectly reflect the mission and traditions of Cathedral High School.

The players' perception of their relationship with foreign coaches from China and the reaction of girls to the Chinese language teacher suggest that the ethnic links and bonds are diffuse, awkward and even outdated in terms of the traditional values of another country, namely modern Singapore. The youth of today are different, particularly in the current, affluent climate and the pupils often misconstrue these imposed ethnic values. When characterising her coach, a female badminton player (interviewee: 46) responded thus:

...sometimes he gets temperamental and unreasonable to some extent.....maybe he is a good coach in terms of coaching but.....because he is also a teacher, so probably the subjects he teaches are pretty well versed in Chinese....he likes to preach moral values, that stuff.....I think probably because he is very traditional Chinese.

Horton (1998:39) identified a colonial transmission of culture (British Imperialism) through sport, language and education and this was evident in the SCP model where traditional Chinese values were being promoted as a result of sport being taught in a Chinese medium. This was particularly obvious when the physical education teachers utilised a typically Chinese structure for warming up the pupils prior to fitness training. The warm-up model was callisthenic in nature and conducted in lines¹⁰¹ with prescribed actions that all the pupils have to memorise and recant to Chinese numerals (1-8): yi er san si wu liu qi ba.

7.2 The SCP Innovation

Politicians in Singapore have been awakening to the value of a national identity¹⁰² that can be achieved through sport and have recognised that certain initiatives are necessary

¹⁰⁰ Much of the culture that was promoted as a feature of mainland Chinese nationalism had been adapted from the teaching of the American missionaries-cum physical educators of the YMCA (Horton, 1997: 26).

¹⁰¹ The use of lines is a traditional form of control that is quite typical for Singapore schools.

¹⁰² This is related to a recent paradigm shift that better reflects the status and calibre of a developed nation.

for this to happen. To gain the realisation of national sporting success in the future, the identification and development of talent must be successful during the early school years.

Sparkes (1991) stated that the political and symbolic value of an innovation can be of greater significance than the educational merit and the symbolic value was important as it could set the preconditions for real change in practice. The SCP model represents the first prototype for sports specialisation within Singapore schools. Its implementation is timely given the political support for sport in general and its significance lies in the fact that the curriculum ice has been broken and sports can now be taken more seriously in schools. Administratively this innovation can be considered as both top-down in terms of the Principal's instigating role as the change-agent in relation to the school and bottom-up when the role of the school is considered within the autocracy of the Ministry of Education. As 'real change' (Sparkes, 1991:2) involves transformations in the ways that people think and feel, this innovation represented a form of ecological pragmatism and thus could be more appropriately described as superficial. Essentially because, in the SCP model, the teachers were not required to rethink their practice or ideas, but were sanctioned to focus purely on the role of preparing teams for competition¹⁰³, the programme can be viewed as a 'managerial' rather than an 'educational' innovation. One advantage for the school was the fact that this change was not externally imposed through some technological perspective of external 'experts' as described by Sparkes (1991:4) but rather it was internally imposed because of the deeply held beliefs of the Principal. Mr Tan regarded the value of sport as an important aspect of an "all-round education" and he perceived the need for a sport model to achieve this goal. All players involved directly in the programme had much to gain from its implementation as the needs and desires of the players and coaches appeared to be well supported by the CHS administration. The main burden of the implementation, as has been shown, was ensuring the long-term co-operation of the academic staff to continue their loyal support through remedial and academic support.

¹⁰³ Through this process, the purpose of producing teams within the curriculum became legitimised to the detriment of teaching a physical education programme.

Innovations are rarely neutral and as Sparkes (1991:20) suggested there were "winners, losers and those on the sidelines." For the leaders, as crucial players in the process, the change represented a real change to their ecology: for some this was positive whilst others were negatively affected. The key player was the Principal, however the physical education teachers and coaches played a major part, whilst academic teachers in the school were on the sidelines of the programme. Some of the academic staff were spiritually behind the initiative, others had reservations about it whilst there were those who were luke-warm or even negative in their response. In 1994, Mrs Chua¹⁰⁴, a subject teacher who did not teach the SCP pupils during the first year of implementation said that:

some of the staff feel that the students are being pushed a bit too much, especially those students who are weak. If the students are very capable then there does not seem to be any problem. I also think that some of the staff feel that they receive too many privileges, particularly when it comes to exams. Their exams are postponed and we have to set a different paper altogether, just for the sports classes. It is a lot of work setting a new paper and marking this paper having finished the others, just for some 20 or so students.

She went on to suggest that while the SCP was creating an awareness of the school, there was a fear that it would attract an unruly element: itself, a cultural indictment of sports people. This was because some of the pupils, that the Principal had accepted for the SCP, did not have enough PSLE points to enter the school legitimately [a genuine fear held by some staff was that these SCP students would negatively impact on the school's reputation]. The fact that these pupils, who some staff believed should not even be in the school, were getting so many 'privileges', seemed more than a little unfair to Mrs Chua. If her opinion is representative of the staff, it would appear that the academic subject teachers at CHS have missed the whole point of the programme.

Sparkes (1991:21) mentioned the loss, anxiety and struggle of participants in an innovation and the SCP did create tensions in the school for staff and pupils alike. Some of this tension generated positive feelings and actions and some of it created a sense of

¹⁰⁴ Mrs Chua is not the teacher's real name.

antipathy amongst teachers who frequently excluded the sports players from some of the inter-class activities and competitions. Neither were the SCP pupils blameless in this process, as they often showed reluctance to participate in some of these activities, which led to certain staff not even bothering to offer them the opportunity to do so. Initially NSC pupils were also sidelined by the apparent inequity of the programme design and appeared to be jealous of the publicity and privileges bestowed on their 'arrogant and pompous' peers. This was a popular description of the SCP players, extracted from the NSC questionnaire conducted in Secondary 2 and from the players interviews in Secondary 3 and 4 and it identifies a mis-management in the promotion of the programme within the school.

In ecological terms, the innovation was supporting the continuity of a school tradition and values that had been held important by the Principal and by the school since its inception. The physical education staff/coaches who had everything to gain from the programme, in terms of doing professionally what they wanted to do most, were quite obviously extremely supportive of this initiative. The SCP began to dominate their working lives and physical education, paradoxically, for which they also had accountability, became marginalised and less important. Elite sport became the champion and physical education was relegated as a low priority in the day-to-day lives of the staff.

In the context of a meaningful sport culture, Sparkes (1991:24) discussed two conflicting perspectives the 'sporting' and the 'idealist'. The former was élitist, traditional, meritocratic, subject-centred and concerned with the maintenance of standards and outcomes. The latter was more egalitarian, child-centred, progressive and concerned with personal and social development and judged on educational criteria. The SCP experiment was, from observation, firmly in the former camp, as it tended to utilise an elitist strategy, which relied on the visible and public display of sporting excellence via the production of successful teams. Sparkes (ibid) also stated that, even within the same department, the innovation would mean different things to different people but by the end of the study, there was only one member of physical education staff still active in the

programme. The other SCP coaches came from different departments in the school or from outside agencies, such as the NSAs.

The successful implementation of this innovation, as well as the publicity generated in the press, produced kudos that was important to the Principal, the coaches and the players but which became a sore point for some of the NSC pupils. The status of sport (winning teams) became powerful and important within the school as a result of regular media recognition and this was passed down to the teachers, coaches and the SCP players as extra pressure to succeed. Sport, therefore, became increasingly more important and as a consequence physical education was put on the back burner as it became marginalised in terms of the instrumental aims of the school. There were occurrences, during ITT observations, when pupils in physical education classes were unsupervised and were seen to be playing haphazardly amongst themselves. It was not uncommon to see the girls sitting sheltered in the shade, while the boys were kicking soccer balls or shooting basketballs. One of the trainee teachers on practicum commented that:

The PE Department is rather disorganised, to be honest. There is no scheme of work for the whole school. The policy of giving each class a basket of three basketballs, one football and one volleyball for their lesson speaks for itself. Occasionally the teaching of some field events like javelin and discus was carried out, but not with any regularity. More could be done by the various pe teachers, if only they were not so tied up with their respective school sports teams. Having a proper scheme of work, dividing the equipment and areas among the classes would certainly benefit the teachers by reducing confusion.

The status of physical education at CHS was low and the attendant poor management practices of the department were regularly apparent. A relief teacher had to be employed to cover for the basketball coach, who was busy with administration for the Zone basketball tournament that the school was convening. This person, whose responsibilities included the distribution of equipment and the actual supervision of pupils, turned out to be the previous captain of the school's basketball team. Fortunately, the young man had considerable peer status but lacked any form of appropriate credentials to be responsible for children in a physical education class: conditions that would be unacceptable in some other parts of the world. (This theme will be developed further in Chapter 8.)

Alienation is an accompanying consequence of innovation and in this study it was very apparent: not only with those players who were dropped from the programme but also with the NSC pupils and even some of the academic staff. The NSC pupils felt that they were getting the programme rubbed in their faces not only by the media but also by the Principal, who would regularly praise the SCP players in school assemblies. Although this practice would appear to be quite normal, this negative reaction was further highlighted in the NSC responses to the questionnaire (refer to Appendix 5) conducted in Secondary 2. In this questionnaire, more than half the NSC pupils (54%) reported that the SCP pupils had a more enjoyable programme of sport and physical activity. Additionally, more than a quarter (29%) thought that the SCP benefitted from better tuition and almost three-quarters (72%) thought that the SCP players had access to better facilities and better equipment. A similar amount (75%) also believed that the SCP pupils received more personal attention in sport and physical activity.

Some ostracisation also appeared in the action of the academic staff, who were failing to comply with the practice of not setting tests during tournament periods. This occurrence was reported by the table tennis coach and also by some of the players but became an issue with the basketball coach, as he considered that the tests were interfering with his players' motivation and concentration during important matches. To a limited extent there was a feeling of alienation by the SCP players themselves as evidenced in the interviews, as they felt marginally isolated, as a special population, from the rest of the school. A female basketball player (interviewee: 59) interpreted a fairly common sentiment thus:

The teachers do not particularly like our sports class; because of tournaments we tend to miss the class a lot. Then it will disrupt the class and the teachers don't like it because the lessons are all scheduled and she has to change it. Other classes think that the sports classes are having a lot of privileges, but we aren't at all. We miss a lot and they think that the school seems to be very biased on our side. So they don't like us.

Both populations of SCP and NSC pupils experienced gains and losses as a result of the programme's implementation, however, the animosity that was created by introducing the

SCP had a negative influence on the perceptions of the NSC pupils. Some teachers were also becoming more recalcitrant and disenchanted with the reality of the innovation, as it created an additional burden for them. Over the four-year period of the study, the programme's familiarity had bred some contempt, to the point where teachers were failing to support the SCP pupils in their tests and were not delivering remedial assistance and support as originally promised. This fact was corroborated in interviews by the coaches of all three sports, as well as by some of the players. These factors altogether, represent constraints that affect the overall success of the innovation.

In Singapore, political kudos from sport is to be attained through the policy of attracting foreign talent, a process that was already functional in the corporate sector and had also been established in the sports of badminton, basketball and table tennis and was to be further developed. The Prime Minister in his 1998 National Day Rally speech said that the Republic may change its "immigration criteria to bring in top football talent and make them citizens, then one day we too can get into the finals" (Straits Times, 26th August). As he was referring to the French victory in the World Cup final, this might have perhaps been taken as a little tongue in cheek. Nevertheless, the Minister for Communications challenged the soccer fraternity to "dare to dream, to go and shoot for the World Cup Finals" (Straits Times, 8th September, 1998) and soon afterwards announced a campaign to prepare for the World Cup Finals in 2010 (Straits Times, 17th October, 1998). The president of the gymnastics association reflecting the opinion of most of his counterparts was quoted in the same article as saying "other countries are already doing it and if we don't, we'll lose out. I'm in favour of bringing in such talent, but not too many. One of the repercussions is that our own athletes will be displaced by these foreign talents."

This type of policy and consensus could well turn out to be precarious for the future of the SCP initiative. If Singapore imports much of its talent from overseas, there would be little or no motivation on behalf of its citizens to strive for elite sporting excellence or a need for a programme of this kind in schools. If 'thoroughbreds' are to be imported from overseas, some of the NSA's have considerable work to do in order to guarantee the future continuation of these foreign players' services. Nevertheless, evidence of the

influence of this recruitment policy has emerged in the shape of seven Under 14 basketball players from China, who were sponsored by another SAP school. Two of these players were almost two metres in height and dwarfed all the opposition in the schools' competitions, gaining, what Charles (interviewee: 51) described as "cheating", an unfair advantage. The basketball coach was quoted in a subsequent interview as saying: "we (CHS) would have a fighting chance if they didn't have the two Chinese boys" (Straits Times, February 25th, 1999). This evidence indicates the extent to which some schools would go to win the schools' championship and further characterises the nature of sport in Singapore. This foreign talent scenario is a reason why, in the future, the SCP may not be necessary for the production of national homegrown talent.

In spite of the nationalistic rhetoric concerning the importance of sport and the recognition that talent identification begins in the schools, the Ministry of Education has shown no indication of legitimising the programme as yet, in spite of official interest shown by the Minister of Education himself. At a time when there is so much publicity concerning the role of sport in the Singapore culture of the 21st Century, it would seem appropriate to support this scheme as a pilot project. However, a representative from MOE headquarters who was researching for a new project about talent identification requested information about the CHS programme. Sadly, she indicated that she knew nothing about the SCP and this was somewhat surprising, considering the amount of publicity that had been previously generated, as well as an official inspection by the Minister himself that was well documented in the press. A sports professional or someone that was at least conversant with the current status of school sport should have handled this important project.

7.3 Programme Implementation

An innovation has many phases and, as part of its lifecycle, changes have to be implemented to ensure the effectiveness of the design in meeting the original objectives. This process of fine-tuning was continuous over the duration of the study and resulted in three major structural changes to the programme, all of which had an academic bias. The

first modification to programme design occurred at the end of 1994 (Secondary 1), when the sport periods in the timetable were altered from first three in the morning to last three in the session. This change was the result of 1) a combination of the hot humid environment and the resultant fatigue from the early morning training and 2) a consequence of the academic staff commenting on the players' lethargy in class in the late morning periods when apparently they were unable to concentrate.

A remodification occurred after some reflection by Mr Tan, the Principal, about the respective benefits of two timing options. In a conversation during 1996 he indicated that he was entertaining the idea of beginning the SCP in Secondary 2, rather than Secondary 1, to allow more time for selecting the right people and preventing the frenzied selection process. The Principal thought that one year would be more than enough time to be able to identify the best players for the programme. An outcome of the current selection process was that not all of the pupils made the grade as team players and consequently had to join regular classes at the end of Secondary 3 or before, resulting in considerable emotional stress, particularly amongst the girls. As this change was to occur in 1997, interviewees in the first batch were asked for their opinion about the idea in the latter part of 1996. Almost three out of five pupils (57%) thought that commencing the SCP in Secondary 2 would not be a benefit to their training programme. These players felt that they needed time in Secondary 1 to develop basic skills in their respective sports. As it turned out, Mr Tan took another course of action owing to his concern about the emotional turbulence at the end of Secondary 3 and some of the SCP pupils found out that they had been dropped from the programme because they were not team players. The Principal was also influenced by the reaction of parents, when these pupils were withdrawn at such a late stage in their secondary education but, at the same time, Mr Tan was concerned about the school's academic status. He had succumbed to the pressure of ranking.

The most significant modification to the SCP model occurred in January 1997, when the Principal decided to reduce the size of the programme from two classes to one, which effectively put the coaches under additional pressure and placed even more emphasis on

an accurate selection procedure. This change had a major and immediate effect on this particular cohort, as half the pupils were cleared out of the SCP after three years of making sacrifices for the school, since the very inception of the programme. Mr Tan was convinced that there would be no need to take such drastic action again, as he believed only team players would constitute the SCP and as a result the problem would not exist. By only having one class there was no need to disappoint anyone, as everyone in the new SCP structure remained, whether they were team players or otherwise. With the exception of the table tennis coach, the other two coaches had considerable reservations about this development as the SCP structure could now only accommodate team players and this necessitated reductions in the size of their squads. One of the bonus points about the scheme, however, is an open door policy, which allows talent into the programme, even well into their school experience. This flexibility supports the point made by Whitehead (1993:119) that it was just as important to be able to drop into sport at different stages in life as to drop out when anxiety, boredom or burnout was causing trouble.

The selection and identification process for the SCP was restricted to the first few days of Secondary 1 before decisions had to be made and players settled into class. The coaches had trials in the various sports where they looked for pupils, not only with talent but also with potential. This forced the CHS coaches to rush a decision concerning the suitability of students for the programme. This haste is quite unnecessary as the SCP has an open door policy that allows players to be added when they are identified, but, as there had to be enough players for two SCP classes, it was possible to make errors of judgement. This problem was thought to have been reduced by the installation of a one-class policy. However, if the SCP is officially sanctioned, it could be promoted as a special elective for sports, while the children are still at primary school and, as the SCP conducts training during the school vacations, a pre-school camp could be arranged to organise the selection process more carefully.

The reduction of two classes to one, in 1997, had serious implications for both badminton and basketball because these sports organically need large squads to choose from. The

first casualty of this new policy in 1998 was, in fact, the girls' basketball team as there was insufficient interest shown by the fresh intake. The basketball coach was able to take advantage of this situation because, if girls had been selected for basketball in the new SCP design, his boys' squad would have been numerically compromised.

The third change, effected by the Principal, was the removal of sport periods from the timetable of the SCP pupils in Secondary 4, as he felt that the players already had enough sport and that they needed to focus on their academic studies as it was their "O" level year. This measure had two major consequences:

- 1) the number of after-school training sessions were increased by the coaches to compensate for this loss; and
- 2) the players had lost a major status symbol and privilege as they now had to train only during out of school hours.

The table tennis coach said that "losing PE periods in Secondary 3 and 4 this last year was a time-tabling oversight", which he thought would be corrected; clearly he was unaware of the Principal's policy decision. As he was not cognisant of this policy switch, it suggested that, as a form teacher of the SCP, he was not being adequately informed or even consulted about programme changes or alternatively was a little naïve because the other coaches were fully aware of what was going on. This, if true, represented another negative aspect of the SCP programme cohesion, where the coaching staff lacked the unity of a well co-ordinated policy, an obvious weakness in the management of the programme.

Four years after it commenced, the SCP can be seen to be considerably different from the original model. There was only one class instead of two, there were SCP classes only in Secondary 1, 2 and 3 and the sports curriculum was now conducted in the late morning. The SCP coaches were very concerned that they would not have enough players with this new arrangement, especially in badminton and basketball.

7.3.1 SCP Special Intake

Out of the twelve students accepted in 1994 below the required number of PSLE points, seven eventually graduated for Junior College, three were retained and two were transferred out to other schools. This policy of bringing in special talent below the school requirement continued until a computing error by the MOE, in December 1997, posted 3,278 normal stream students to the wrong secondary schools (Straits Times, 24 December, 1997). This mistake backfired on the Principal and it indirectly deprived him of the prospective sports pupils that he was intending to bring in to strengthen the SCP. This further endorsed the fact that MOE did not recognise the programme and had overlooked any special arrangements to accommodate the school's needs. Mr Tan indicated how difficult it was becoming to keep the SCP project running in light of the MOE faux-pas over the intake and the resultant lack of consideration. Pupils, who had selected Cathedral in their choice of secondary schools, even though they did not have the required number of PSLE points, were ignored, meaning that the Principal had mainly special stream pupils that a SAP school would normally enlist. This seriously hampered the Principal's plan to maintain and develop a sporting elite at Cathedral, as he was unable to attract pupils with a genuine sporting interest and ability to the school. Attracting talented sporting pupils was made more difficult when the number of PSLE points, necessary for entry to CHS, rose to 250 in 1997, a further rise on the previous year and a big increase on the 1994 level of 238. Additionally in 1997, many of the express stream students that were accepted had very good PSLE points which is a positive sign for academic achievement but alternatively difficult for the school to achieve "value added". As the school becomes more academically selective it would appear that there are fewer pupils interested and available for sport specialisation, which would seem to contradict a global picture, highlighted by Almond and McGeorge (1998), where there was found to be a strong association between sporting success and academic ability.

7.4 Monitoring and Fine-tuning the Model

Out of the 69 pupils, who started the SCP in Secondary 1, 37 remained in the programme in Secondary 4, three were retained in Secondary 3 and three left CHS altogether, as they were demoted to other schools, because their academic grades did not support their retention. From those that remained in the SCP, 30 represented the school team in their final year as well as four pupils from another class, who had been dropped from the programme. This meant that, from those selected for the programme in Secondary 1, exactly half the number of pupils achieved their goal of representing the school in their final year in the programme.

Thompson (1993) noted that the director, in this case the Principal, as a key administrator was extremely important for the success of the programme and the well being of the athletes. The Principal's main role was to take care of the academic dimension of the programme, while he delegated the rest of the administration, pastoral care, training and preparation to the coaches and an administrator. His was a critical role, as he had to prove to the School Board, the Ministry and the parents that the SCP was more successful than the previous system. He knew that if the academic ranking fell, he would lose some of his credibility, given the substantial publicity for the programme. However, the Principal's position may have been too far removed for him to have an accurate and precise insight into the players' welfare other than making objective judgements based on their academic test results. An initial appointment of a programme administrator had not been overly successful, according to one of the coaches, essentially because he was a member of academic staff, who was considered to be outside the programme. Although he was a senior member of staff, who taught the SCP players and oversaw the SCP academic attainment levels, from personal observations, the SCP appeared to be another matter-of-fact responsibility added to his list of duties. The appointment of a programme co-ordinator, in the form of a head coach, with a vested interest in the programme outcomes and players' welfare, would be better for handling the very important management role within the SCP. An appointment of this nature would allow the Principal to make executive but informed decisions based on his own objective criteria

without personally having to audit the programme. The SCP players would then receive better counselling and support when it was necessary, rather than being discarded from the programme because their studies were suffering.

Sparkes (1991:8) suggested that teachers (and in this study the Principal) were not passive in the process of innovation but were "active in defining and redefining their circumstances within it". Two points tie in with this position:

1. the Principal's original objective that the sports players would not be hampered in their studies through the SCP; and
2. how the Principal (1994) reportedly "put his job on the line".

In Secondary 4, non-team players with high grades remained in the SCP, but they did not play in the school team, while there were others who were in the school team, but not in the SCP. One of the girls from the 'special' stream (interviewee: 61), who had been in the badminton programme for four years but had never played in the school team, had this additional comment to add at the end of her interview:

because some of us have better academic results, they put us in this class. Like me, I am not saying that my results are very good, but I think the school are showing off to the other schools that we are getting better results when we are sports students.....and those who are not in the sports class, but are school players, they have been pushed out.....if we mention that we are in the SCP and say that we are not sports players, I think its quite ridiculous.

This comment suggests some inequity in the true academic placement of pupils. Although academic results were important to the programme, she was one of four pupils (2 boys and 2 girls) in the SCP in Secondary 4 that had never represented the school and this represented a tremendous disappointment to all of them. Owing to the fact that the Principal had to carefully balance the academic profile of the school and maintain or improve CHS' ranking status, these non-team players were retained in the programme, because their academic grades were good. Good academic grades also supported one of the original objectives underpinning the programme, but introduced a level of bias. The

SCP had a total of seven players out of 37 in this capacity, that did not represent the school in their final year and this may have been one factor that allowed the Principal to announce that the SCP academic results were better than the other classes. As the SCP had been cut in half by Secondary 4, this also had the effect of removing the academic burden of pupils, who were not keeping up with their studies. This academic phenomenon is unlikely to occur in the future because there is now only one class in the programme and there will be barely sufficient players to service the three sports of the SCP. In response to the major modifications that were made to the programme during the study one girl basketball player (interviewee: 25) said:

In the first year I was very excited about the sports class. But by the second year I felt that actually it's not a very good idea because they are making so many changes. Every year they change. Everytime when we get used to this system, they will change it. It's very difficult for us to adapt to. In terms of friendship, I think yes, I am glad to join the sports class, but other things I think no.

As a consequence of the one-class policy, there were no basketball girls in Secondary 1. Contrary to global trends, the basketball coach said there was insufficient interest from the girls and gave two reasons: 1) primary schools are not promoting basketball for girls and 2) netball is attracting the girls at an earlier age and is being actively promoted in the primary schools. He said that the promotion of netball, as an alternative, accounted for the small number of girls' basketball teams at "C" division level.

The Principal thought that all the changes were necessary for improving the impact the programme was having on the school and also that they were in the best interests of the SCP players. In the final analysis the parents will judge the Principal through the academic success of the school, vis-à-vis the school's ranking, and not by the ECA success of the SCP programme alone.

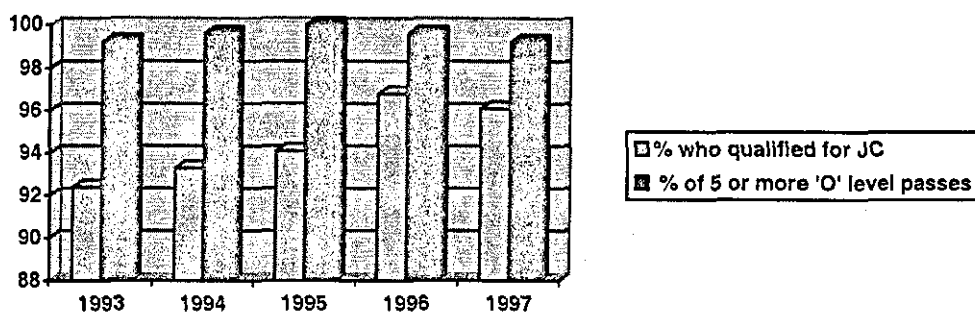
7.5 Academic Outcomes of the SCP

One of the original aims of the study was to examine the school's ranking status over the period of the study to investigate the impact the innovation had on the academic results of

the SCP pupils, when compared to the NSC pupils. As previously stated the school is assessed for ranking in three areas: academic, fitness and obesity, however, this section of the study concentrates on an analysis of CHS' academic results.

At Cathedral High School, between 1994 and 1997, almost every pupil, averaging 99.5% of the total school population, achieved five 'O' Level passes in the annual Cambridge examinations, compared to the national average of 72.2% for the same period and 93% scored high enough to gain admission to a Junior College (JC) (refer to Figure 7.1). In 1997, the percentage dropped slightly to 99.2%, however, this can be accounted for by an increase of more than 100 pupils being entered for the examinations.

Figure 7.1: Academic Results from 1993-1997



In 1995 and 1996, out of the top 50 schools in Singapore, CHS was ranked in 11th position academically but this result slipped to 15th position in 1997. Although the school recorded a maximum 100% in 'O' level passes in 1995, the number of pupils qualifying for Junior College in 1997 was higher than in 1995 by 2 percentage points. The academic standard (refer to Figure 7.1) was therefore maintained at a very high level and the improvement in pupils qualifying for JC also continued to improve over the period of the study, with only a marginal deterioration in 1997.

These results were broken down to compare the academic results of the SCP pupils with the results of the NSC pupils in 1997. As can be seen in Table 7.1 the SCP players

achieved better results than the NSC pupils in all three categories, justifying the academic component in the SCP design. Only one SCP pupil failed to qualify for Junior College but this was not one of the original 13 pupils admitted to the school in 1994 with lower than the prescribed PSLE points, further vindicating the Principal's decision to allow these 'sport' students into the school. As academic attainment was one of the Principal's original goals, the SCP can be seen to be operating with distinction.

Table 7.1: SCP and NSC Academic Results for 1997

	NSC	SCP
5 or more 'O' level passes	99.2%	100%
Junior College admission	95.6%	97.3%
L1R5 (Aggregate)	12.5	11.8

The Principal was quoted as saying, "having been through numerous battles, sports students are generally more disciplined. They tackle exams with more confidence because they have a lot of mental strength" (Straits Times, 15th October, 1998). This was backed up by the fact that 97.3% of the sports students gained admission to Junior Colleges compared to 95.6% of regular students. This fact supports the notion that the sports programme did not adversely affect the academic results of the SCP players but rather improved it, as suggested in Almond and McGeorge's (1998) review of 'Physical Activity and Academic Performance'.

Schools, in Singapore, are also ranked in fitness and, in 1996, CHS improved its status from 15th to 10th of the top 50 schools with 86.3% of pupils passing the annual fitness test (NAPFA Award). In 1997, the CHS pass rate improved to 89.5% and the fitness ranking rose to 7th position. CHS's Fitness Index (FI)¹⁰⁵ score of 85.5 achieved 11th position in 1996, again an improvement on the year before (15th), but in 1997 the school improved its status once more to achieve 8th position, indicating that fitness in the school

¹⁰⁵ The percentage that passes the NAPFA test score is combined with the percentage of pupils within the acceptable height and weight range, taken from the School Health Service tables, to form an index (FI).

was getting better and obesity levels were going down. This fact could possibly be a reflection of the influence of the SCP or the fitness testing that was part of the study's design. This evidence supports the SCP concept to such an extent that the decision to cut back the programme has to be questioned.

7.6 Generalisability of SCP Model

The transferability of the SCP programme design for other schools to follow cannot be determined directly from the data, which was collected from a quasi-independent SAP school milieu in Singapore, as clearly, the school population analysed was far too specific. CHS did not include the essential elements of multi-racial composition that can be found in government schools; the 'madrasah's' or religious schools for Muslims, essentially Malays, do not operate physical education departments and there are no special schools for Indians¹⁰⁶. However, the model can have relevance for other schools in Singapore, especially those that place a lower priority on academic attainment, providing that there is substantial support from the respective principal and his/her staff, in the knowledge that physical activity is linked to academic performance. However, the concept would be more successful if sequenced through the educational system at all three levels of schooling. This would require an introductory stage at the primary level, an intermediate stage at the secondary level and an advanced stage at the tertiary level. This concept would provide young Singaporeans with a sports development programme, which could offer some protection against the academic merit system but would acknowledge the pupils' contribution towards their sport, their school and their country. Pupils, who commit themselves to such a project wholeheartedly, have to know that there will be some continuity and purpose and that some value and appreciation will be attached to their contributions. There ultimately needs to be a "Sports Class System" for the 'sport development' theory to bear fruit and achieve elite standards.

¹⁰⁶ Ex-patriate schools were not considered appropriate for comparison as they operate on a totally different basis for education and for sport.

7.7 Legitimation

The uniqueness of the location is perfectly suited for upgrading the model to 'gifted' programme status, not just because the SCP is established and operational but more, because it ties in with the national goals for SPEX2000 and is perfectly appropriate for accommodating foreign talent. CHS would not only be able to cater for sporting interests and development but would also be able to service educational and cultural needs, particularly as Chinese nationals appear to be the most attractive foreign talent for Singapore sport.

The fourth of the Principal's major goals was to have the programme recognised by the Ministry of Education as an elective programme for the gifted in sport. This legitimisation would enable him to allocate greater funding and staffing to further develop the project and would also release some of the constraints that were impeding the full implementation of the programme. At a time when there is considerable rhetoric about sports excellence and schools have been identified as the source for this talent identification, nothing tangible or official has emerged from the NSA's or the Ministry other than the SCP model and it stands alone without fair or equitable recognition. This effectively relegates the physical domain to the second division, while the linguists, artists and musicians relax unchallenged in the premier. Interestingly, these gifted electives are driven by academic courses leading to 'O' and 'A' level examinations and this is lacking in the subject of physical education and sport in Singapore and therefore represents a weakness in the programme's design and an obvious area for development.

Legitimation would offer additional assistance to the Principal to further promote the initiative by providing extra funding and staffing, but, more importantly, by offering particularly gifted sports students the opportunity to excel. The high level of PSLE points required for entry into the school is effectively preventing a sporting elite from entering the school as it has the effect of attracting students that have a more academic disposition. As an additional purpose of this study is to guide the development of a

recommended model for sports excellence within Singapore schools, recommendations will be made in the concluding chapter.

Chapter 8

The Discipline

This chapter investigates the sport culture in Singapore and evaluates the impact of competitive school sport (ECA) on physical education, while sports related outcomes that are important, particularly in the Singapore context, are examined to add further weight to the success or failure of the SCP. Finally, the style and manner of coaching that is an integral part of a sport specialisation programme is examined from the players' perspective to ascertain the perceived quality of instruction within the programme.

8.1 Sports Excellence

Excellence is essentially identified through the concepts of 'elite' sport and sports excellence. The 'sport schools' of China, it can be argued, that so impressed the Principal (interview: 1997) were designed for the production of national talent. Although this design influenced the Principal initially, as the SCP unfolded, he began to realise that his goal of developing national talent, on a scale that he had previously envisioned possible, was beyond reach. Although he cannot be faulted for this, the notion of developing national talent by grouping sports students together and providing them with vast quantities of special tuition, both in sports and studies, was far too ambitious. This emerged because he had an intake of bright but relatively normal pupils, only some of whom had appropriate sporting potential. Contrary to the global rationale, where sporting participation and studies go hand in hand (see Almond and McGeorge, 1998) sporting excellence was more difficult to achieve in a meritocratic system like Singapore's, where academic accreditation is valued so highly to the detriment of almost everything else. Although the SCP model had the potential to develop specialised talent in three of the core sports, as defined by SPEX2000, it was never intended that the programme would become a national 'sport school', such as those found in Malaysia, Indonesia, China or Australia. However, had the initiative been officially recognised as an elective programme within the educational system, more could have been done in

marketing and promoting the scheme as a serious attempt at sports excellence through an integrated school and club programme. This limitation reflects the top-down nature of legislation in Singapore, where lower-order initiatives may not get the recognition they fully deserve. SPEX2000, along with its provisions, could have tied in more conveniently with the innovation at Cathedral High School, allowing opportunities for the school to take advantage of appropriate and additional expertise, whilst offering sports players greater access and incentives for advancement.

This represented a missed opportunity because the SCP model has the potential to provide an important facility for SPEX2000. The coaching expertise within the NSA's could be harnessed more efficiently if there was a 'laboratory school' for the three core sports, particularly as an adjunct to the policy of importing foreign talent. At the moment, sport policy in schools seems to be confused, as those who are benefiting from sport at school do not appear to need SPEX2000 and vice-versa. During an interview with the Principal, he highlighted some reservations he had with the SPEX2000 programme and lamented about the support available for young sports people in the three selected sports. He implied that SPEX2000 was failing, as the infra-structure to help nurture and support the athletes was lacking and money, in his opinion, appeared to be the main incentive. "What do the athletes do with the money, go shopping?" he quipped. Nothing much had happened, he believed, in the 4 years since it was set up other than sending a few swimmers and athletes to study overseas in cultures and systems where sport is more highly valued. Mr Tan thought that the SPEX2000 scheme was rushed through without sufficient groundwork being done and he believed that a lot more could be done to support the school-athlete by providing a career path for them beyond their playing days through continuing education or coaching. Assistance, it appears, has to be visible to the athletes before they will choose sport in preference to studies or even to defer their studies, safe in the knowledge that provision has been made to support them later on in their development.

The Principal felt that the impetus of SPEX2000 had already been lost and the Singapore sports system had returned to the 'Sport for All' philosophy through the latest policy of

'Healthy Lifestyles', in itself a justification for the foreign talent policy now being pursued by the government. Perhaps the government recognised that international success is not so easy to achieve and that money, on its own, cannot buy Olympic Gold. Neither is it appropriate to dispatch a handful of athletes on overseas scholarships, when the whole of the nation's sporting aspirations rest on their shoulders, as is currently the case, because, in competition, this responsibility often weighs too heavily on their shoulders.

8.2 School Sport

Gilroy (1993) stated that the pressure to participate in sport came from the way that society rewarded sport and competition and currently, in Singapore, participation was being promoted more vehemently in political rhetoric than was actually occurring in reality. As sport begins to attract more media attention in the Republic, its importance and value is being bolstered in the national psyche. In line with the drive to reposition the Singapore economy, as a result of the regional financial crisis, education still lies at the heart of the revival. To produce entrepreneurs, or 'edupreneurs' in modern parlance, endowed with the intellectual capital for the knowledge economy of the 21st Century, Universities in Singapore are adopting new criteria for undergraduates. The selection process for universities is now seeking out students with all-round capabilities, including a student's performance in extra-curricular-activities. This is an important breakthrough for sports-people as there is now some recognition to be gained in academic circles for endeavours on the playing field. The schools' sports system has still to react to this development because the current policy is not adequately addressing the needs of the sporting fraternity in the schools, as there is only one major competition organised for every two years of schooling. Unlike school sport in the UK, Australia and the USA, where matches are contested over extended seasons, schools in Singapore have not been accustomed to organising impromptu or friendly matches between each other or even creating opportunities for reserve level players to experience the feeling of competitive school matches. Owing to the structure of schools' competition in Singapore, the playing

seasons are intense but relatively short, even for the school teams that are successful in graduating to the national championships. This is essentially because of two reasons:

1. the impact of serial examinations on the school calendar; and
2. the disruption on schools by the timing of the competitions during school hours.

The SCP was examined at a time when other schools were also benefiting from external coaching assistance from the NSA's, making any achievements at CHS more difficult. In the quest for a new national identity through sport, coaches were operating in many schools in an attempt to raise performance profiles and, during this period of investigation, sport was attracting more political and media attention and consequently status. This essentially did not benefit the SCP directly, as much as it might have done previously, as Cathedral High School was essentially not receiving any particular advantage from these coaching arrangements over and beyond any other school. In fact some schools were scouting for talent internationally, which made the struggle to be the best even more difficult. One of the top boys in badminton, who also represented the SPEX2000 squad (interviewee: 51), when referring to the schools competition, stated that:

Some of the better players are from Malaysia and Indonesia....So its quite tough...in tournaments its not very pleasant. You feel that this school buys players from other countries to beat us.... Anglo Chinese School¹⁰⁷ have many Malaysian and Indonesian players. In the past three years, they have one Indonesian player who won the individual titles every year. He is very good and can give a very good fight for Singapore's first singles.....That guy is third in his age group. They go back to Indonesia and train. Sometimes, actually its very obvious when they help out with the team-mates also. I think its very unfair. They are making use of other players to bring up their school glory and not their local players.

Players, from the very inception of the SCP, appeared to attend an inordinate amount of 'training' or practice. This meant six periods of sport during curriculum time per week for the Secondary 1 and 2 pupils as well as three after school sessions of about two/three

¹⁰⁷ One of Singapore's top independent schools.

hours duration. The Zone competitions traditionally commence only three weeks into the term and this accounts for the rationale behind the December holiday training sessions being needed for preparation. Although this seemed a heavy load for school level athletes, Wall (1998) indicated that persistence was an essential characteristic for continued participation and individual excellence. However, a foreign athletics supremo, Hans Peter Thumm (Director of Coaching, SAAA), stated that elite Singaporean athletes train for around four hours per day, whilst elite athletes from elsewhere in the world, and of a much higher competitive standing, trained for a maximum of two hours per day (Television Corporation of Singapore, 3rd December, 1996). His conclusion was that there must be a lot of time wasted in training that could be put to far better use and too great an emphasis was being placed on quantity rather than quality. He suggested essentially that not only did training lack intensity or quality but also that athletes needed to train more efficiently. To follow-up this point, the players were asked, in their interview, how intense the training was and their responses indicated that only about a quarter of them trained regularly to any reasonable level of intensity and for those that did, it was sporadic.

8.2.1 Elite performers

When a disproportionate amount of time was spent on the elite performers, 'sportism' is created. Sparkes (1988) suggested that this paradigm was subject-centred rather than child focused, and this clearly relates to the SCP model, as it focused on sport to the detriment of physical education. In Singapore generally, too much importance is placed at the "altar of winning" (Klug, 1994:28) and on the outcome rather than the process. Although 'sportism' was present in the attitudes of the coaches, there was little evidence of it in the attitudes of the players who appeared, from an analysis of their interviews as well as Webb's Play-Professional Continuum results, to have more of a healthy attitude to winning. Almost two thirds (65%) of the players, more girls (72%) than boys (58%), stated that, at the end of a game, the most important feeling was to have played well. This was felt most strongly in the table tennis group (79%) and felt least strongly in the

basketball group (58%). These positive healthy opinions about winning support the notion of excellence put forward in the literature.

8.2.2 Sport Enjoyment

Only one third of the pupils supported Gilroy's (1993) contention that too often youth sport became serious and hard work. For some of the SCP players large quantities of training had still not affected their enjoyment, as four out of five reported in their interviews that they continued to enjoy playing their sport. This rationale may well be indicative of a wider belief that the more time one spends in sport the better one will get, regardless of the quality of training or the calibre of athlete. Nevertheless, from the evidence collected in this study, it can be deduced that the programme offered a healthy climate for competition to the CHS pupils. In the USA, a number of authors reported that young males and females would rather succeed in sport than in the classroom, however, this was definitely not the case in Singapore. Only 6% of the players felt this way, which was more in line with Whitehead's (1986, 1993) picture of the UK, where schoolwork was a consistently higher priority than success in sport, particularly for girls. In Cathedral's case, boys reported a slightly higher compliance with studies than girls.

8.2.3 Singapore Schools' Sport System

One criticism of the Singapore school sports system has been the lack of status attached to sport and the discrepancy between the importance of the uniformed groups¹⁰⁸ compared to the athletic groups. This discrepancy surfaced because the recognition given for their services to the uniformed groups earned more ECA points for Junior College admission, making them more attractive than sports. It was education policy that uniformed groups in schools were given this recognition, as they are considered to have an important role to play in preparing youth for National Service and developing a sense of nationalism.

¹⁰⁸ Uniformed groups like St Johns, National Cadet Corps, scouts, girl guides etc are very popular extra-curricular school interests.

Times are set to change, however, as the latest initiative from the Ministry of Education will revamp the previous Combined Schools¹⁰⁹ system of the early 1980's (Straits Times, 15th February, 1997): this initiative accompanied the ECAC plan to award more points for athletic ECA's. The Assistant Director of ECAC, Mr Ong Lye Huat, was quoted as saying that he had "feedback from schools that talented students are more willing to come forward now." ECAC now requires all sports to field Combined Schools teams and this proposal received positive responses from the National Sporting Associations.

8.3 Coaching

This section reflects specifically on the players' opinions about the coaching characteristics that they experienced in the SCP. Much of the data reported during the players' interviews contains a gender bias with girls perceiving a great deal more negativity in the coaching scheme than boys, who were largely supportive of their learning and training environment.

A number of the players, particularly girls, reported that being subjected to yelling from the sidelines, was a coaching characteristic that many found unacceptable, although this style appeared to have had less effect on the better team-players, who admitted that it helped them to focus better. Two out of five SCP pupils (41%) suggested that their coach yelled at them and this was reported by two thirds of the girls (66%) but only 17% of the boys. As this represents almost four times as many girls as boys and, additionally, the fact that a further 17% stated that the coach yelled out sometimes¹¹⁰, this highlights a distinct difference in coaching styles for girls and boys.

Almost twice as many girls as boys suggested, in response to a question in their interviews about methods of arousal, that the coach was not getting the best out of them (refer to Table 8.1). It is evident that the most frequent answer given (Rank 1) conveys a negative impression of the SCP coaching behaviour.

¹⁰⁹ Combined School Teams included the best players from different schools to play in competitions against other countries, but they also competed in local hockey and soccer leagues.

¹¹⁰ Once again, this was reported by more girls (21%) than boys (13%).

Table 8.1: SCP Perceptions of Coaches Methods of Arousal (n=52)

Rank	Strategy	Total %	Girls %	Boys %
1	He/she doesn't arouse me	23.1	29.6	16
2	Praise and encouragement	13.5	7.4	20
3=(a)	Motivation and illustration	11.5	14.8	8
3=(b)	By playing to our strengths	11.5	7.4	16
5	Pushing hard and personal attention	7.7	7.4	8
6=	By scolding us	5.8	7.4	4
6=	Corrective feedback and not scolding us	5.8	11.1	0
6=	By talking to us when we are off form	5.8	7.4	4
6=	Teaching a variety of things (technical/emotional)	5.8	3.7	8
	Miscellaneous	9.5	3.7	16

Boys reported higher levels of praise and encouragement from their coach, while girls mentioned being scolded in both negative as well as positive terms, which, overall, portrays a negative impression of coaching behaviour from the girls. This can perhaps be explained by the girls' pride or their lack of drive and aggression, which is a common phenomenon in Singapore or an aspect of the chauvinistic coaches' mindset towards girls in general, whereas boys appeared to possess a more competitive spirit.

All of the qualified coaches in the NSA's, a very high proportion of whom are male, have been exposed, during their accreditation¹¹¹, to coaching material based largely on the Canadian system with sections specifically aimed at children (Kunalan, 1998). However, in reference to an issue discussed previously, it seems that there is very little, if any, mention of gender in this accreditation scheme, other than of a physiological nature. Gender is an aspect of programme design that needs to be addressed, if there is to be equity in the way the programme is internalised by the pupils. Thorpe (1993) stated that schools had to be very careful about the credentials and skills of the coaches they permitted into their school programmes because they most probably introduced sporting

¹¹¹ National Coaching Accreditation Programme (NCAP) based on the Canadian coaching syllabus ensures that coaches are exposed to material concerning the young athlete.

and cultural biases that were alien to, not only educational values, but also those of the school. In this regard, the players, during their interviews, mentioned some difficulties with the external coaches. The selection of the NSA coaches was mistakenly and unfortunately beyond the control of the school, although the school is now appointing its own table tennis coaches from outside the Singapore Table Tennis Association, as a consequence of coaching deficiencies. An integrated approach between the school and the community, recommended by Thorpe (*ibid*), was in effect in operation, although there was some discord and differences in standards that needed further investigation and negotiation before the level of co-operation could be considered satisfactory. Two of the coaches' were of the opinion that a member of academic staff would be more committed in his duties to the SCP than an external coach. Owing to the fact that the Principal has not been given any additional autonomy for the SCP initiative, the appointment of full time academic/coaching staff is beyond his current capability. It is also possible that, at present, there may not be enough personnel in Singapore with appropriate teaching and coaching qualifications to upgrade the programme in this way.

For positive instruction to be most effective, Thompson (1993) stated that pupils had to be taught to think for themselves and empowered to make suggestions, which were important as lifetime skills. Owing to the culture of the school, the vast majority of players reported that they were not accustomed to or even comfortable with making suggestions and opportunities to do so were not easily available. Although this may be universal in educational circles, turning this round could be a possible strategy for coaches to improve levels of self-esteem amongst the players. A female badminton non-team player (interviewee: 32) gave this explanation:

We are encouraged to make suggestions, but it depends on who makes the suggestions. If a person with importance, like the captain or president or someone in the badminton family (the team), then probably, the chances of getting their suggestions performed or into practice is higher.

A high percentage, however, particularly basketball players and table tennis boys, stated that they were taught to think for themselves during school matches, which theoretically

represents a positive outcome of the coaching programme. Thomson (1993) added that children should be encouraged to assist in teaching each other to help them better understand the process and purpose of skill development and this behaviour was evident in the study. This was not at all surprising, because, in Singapore, peer coaching is a common cultural practice in educational settings. Either as a natural consequence of their educational socialisation or as an expected role within the programme, there were many occasions where the players would help, not only each other, but also the younger players in the programme. It could be said that part of Thompson's (1993) philosophy to 'make every kid a coach' was materialising.

8.3.1 SCP Pupils' Welfare

Biddle (1993) argued that the interests and needs of young people should take priority over the activity, which should be measured by its contribution to personal development. In this study, only the sporting needs of the team players appeared to be well taken care of, accompanied by an overall concern about the players' academic status. However, some questions need to be asked about the perceptions of basketball and badminton girls, who were non-team players, as there appeared to be some waywardness in their attitude and non-conformity. They also experienced some difficulties with this sport system that were reflected through their perceptions of bias, most probably because there was only one team representing the school and they were not part of it. If sports' coaches were recognised as the most significant socialising influence on girls over 13 years old, as suggested by Higginson (1985), some rethinking, about the coaching system and allocation of teams, is necessary by the Principal, as well as the NSA's. The coaches themselves need to reflect on their culture and practice, as there was a definite negativism expressed by girls about many features of the programme, particularly in connection with coaching styles, especially when these opinions are compared with those of the boys (refer to Table 8.2). The SCP pupils provided all of these descriptors; not one of them was autosuggested during the interview.

Table 8.2: Words Most Frequently Used by SCP Players to Describe their Coach (n=55)

Words used by pupils	%	Girls%	Boys%
Nice and friendly	4	0	8
Biased/has favourites	5	7	4
Sarcastic	2	3	0
Supportive, interested and concerned	31	17	46
Treats everyone equally	9	7	12
Good motivator	7	3	12
Patient and knowledgeable	4	7	0
Critical	29	41	15
Bad tempered	4	7	0
Well balanced	4	7	0
Worst coach ever	2	0	4

It was interesting that girls described their coach using more technical terms and boys in more humanistic terms (refer to Table 8.3), which is almost the antithesis of what might have been expected.

Table 8.3: SCP Players Opinions of Coaches' Strengths (n=57)

Rank	Coaches Strength	%	Girls%	Boys%
1=(a)	Good coach (knowledgeable)	16	18	14
1=(b)	Caring and encouraging	16	4	28
3	Knows how to push hard to build a team	12	14	10
4=(a)	Combination of 1(a) and 3	9	11	7
4=(b)	Systematic teaching	9	11	7
6	Compassion / empathy	7	-	14
7=	A good player	5	11	-
7=	Strict and patient	5	7	3
7=	Good technically	5	7	3
7=	Don't know	5	7	3

More girls indicated that the coach was the source of anxiety, when playing for the school. Girls also perceived that they received less encouragement from their coaches and two out of five reported no encouragement at all and also mentioned being scolded and yelled at much more frequently than boys did, which only succeeded in embarrassing and humiliating them in the process. Indeed, it was one such incident, when a table

tennis girl had just lost a match and was severely reprimanded for it that she lost her temper and shouted back at the coach. The Principal witnessed the incident and, showing a lack of real understanding of sport culture, barred the girl from the programme: however, her peers were outraged at this treatment and also withdrew from the programme in sympathy with their schoolmate. Consequently, they took no further part in the SCP. This incident represented a further example of the power of peer relationships and the strength of bonding that existed within the programme.

In the interviews, there was little direct evidence of pressure being created for the players through the anxiety of the coach, in spite of the fact that s/he was guilty of yelling from the sideline, particularly in badminton. A few of the players felt that yelling served a useful, uplifting purpose, however, because it made them think harder about what they were trying to do. A female basketball non-team player (interviewee: 7) described her feelings thus:

Sometimes it is better if they shout and tell you what you did....It depends on how you are feeling that day. If you are angry that day and they shout at you, then you feel worse, but if you are trying your best, you can't do anything about that. Sometimes we are too lazy, and they shout, then it is for your own good.

8.4 Sport Related Outcomes

8.4.1 Fitness Data

Given the importance of fitness in the national consciousness plus the fact that Singapore schools are ranked in fitness, it seemed appropriate that this should be a major area of investigation, to identify what differences sport made, if any, to the development of this health component.

Osternig (1994) reported that active boys and girls were significantly superior to their sedentary counterparts in strength, suppleness and stamina. The fitness data collected

during the study supports the latter category (refer to Appendix 9¹¹² for a full analysis), as well as indicating that, if motivation to perform the test was also a factor, as Armstrong and Welsman (1997) suggested, these pupils were also more motivated. An analysis of NSC and SCP fitness scores revealed significant differences in every year, as Table 8.4 demonstrates.

Table 8.4: Multistage Fitness Scores of SCP and NSC Pupils

	NSC Mean	SCP Mean	Sig.
Sec 1	5.72 (1.09)	8.31 (1.54)	***
Sec 2	7.14 (1.93)	9.06 (1.62)	***
Sec 3	7.02 (2.10)	8.80 (1.82)	***
Sec 4	6.74 (2.26)	8.32 (2.20)	***

***p<0.001

A longitudinal analysis ($t=-8.72$, $df\ 278.83$, $p\leq 0.001$) also indicated that SCP pupils were fitter than NSC pupils over the duration of the programme. When the SCP results from Secondary 1-4 (refer to Table 8.5) were analysed no difference was found in their overall scores; neither was there any difference found when the SCP boys results from Secondary 1-4 were analysed.

Table 8.5: SCP (Boys & Girls) Multistage Fitness Results

	Boys & Girls		Boys		Girls	
	Mean	SD	Mean	SD	Mean	SD
Sec 1	8.31	1.54	9.42	1.16	7.20	0.97
Sec 2	9.06	1.62	10.03	1.32	7.85	1.05
Sec 3	8.80	1.82	10.14	1.21	7.25	0.97
Sec 4	8.32	2.20	9.99	1.26	6.37	1.23

However, SCP boys were found to be fitter than SCP girls ($F=194.5350$, $df\ 1,149$ [$p\leq 0.001$]). Significant difference was found when the Secondary 2 and Secondary 4 scores of SCP girls were analysed ($F=5.7884$, $df\ 3,69$ [$p=0.0014$]) indicating that SCP

¹¹² This data was presented as a conference presentation at AIESEP, Singapore, December, 1997.

girls were fitter as Secondary 2 pupils than they were in Secondary 4. Significant difference was also found when SCP girls results were compared with NSC girls ($t=-11.61$, $df\ 122.76$, $p\leq 0.001$) as well as between SCP and NSC boys ($t=-7.11$, $df\ 122.83$, $p\leq 0.001$).

In respect of the Secondary 4 results (see Table 8.6) of the Multistage test which had deteriorated somewhat from Secondary 3, Klug (1994:26) stated that "the amount of exercise needed to maintain a certain level of fitness is considerably less than that which is required to achieve that level." He also mentioned that fitness gains achieved during certain types of training were not lost as rapidly as previously thought, even if training temporarily stopped. In this study, it seemed as though fitness, which had peaked in Secondary 2 (1995), was sufficient for the players' needs, judging by their subsequent results in the national championships. Although fitness had deteriorated a little in Secondary 4, this was most likely to be the result of the fact that the training programme had ended some two to three months earlier. The basketball coach was not at all surprised by the fitness scores of this age group and stated, in his interview (1997), that, from his experience of previous cohorts' scores in the NAPFA test, this was to be expected. This period appeared to be a turning point in the players' secondary education, as they began to address the serious job of preparing for their 'O' level examinations.

Equally, the fitness scores for SCP girls in Secondary 4 may have been affected by the change in their BMI ($F=3.3107$, $df\ 3,70$ [$p=0.0252$]) over the four years of the study (refer to Appendix 8). Post hoc analysis found difference between the SCP girls' BMI results in Secondary 4 and their Secondary 1 and 2 results. This difference was largely attributed to the basketball girls, who displayed a tremendous fluctuation in their fitness results that also coincided with a significant increase in their BMI scores in Secondary 4 ($F=9.1344$, $df\ 3,26$ [$p=0.0004$]), resulting in a negative correlation. The "strong inverse linear relationship" ($r = -.6603$, $p\leq 0.001$; Cohen and Holliday, 1982:90) indicated that as fitness went down in value, BMI increased. As no significant difference was found in the boys or the NSC girls' BMI results over the four years of the study, this finding supports current literature, which suggests that adolescent girls are more at risk of gaining

weight, when regular physical activity ceases (Klug, 1994). This result also supports Klug's opinion that physical activity was important in the maintenance and regulation of body weight for girls, particularly at this stage of their chronological and academic development.

It has been suggested that differences within this age group were to be expected but would have diminished by the time they reached late adolescence and evidence would suggest that this was happening. Supporting the evidence accumulated at Lilleshall by the Football Association, Malina (1988) suggested that, in early adolescence, success in team games for boys might not transfer into late adolescence and the case of the basketball captain clearly illustrated this point. As a person who had matured early, he appeared not to have grown taller since the beginning of Secondary 2 and his coach also admitted that his outstanding playing ability as a freshman had not significantly improved over this time frame. This was one of the drawbacks of early selection because team sports tended to select those with the appropriate characteristics, namely size, speed and strength, according to Corbett (1995).

8.4.2 Fitness Testing

Armstrong (1986, 1997) was critical of performance tests of physical fitness as he believed they were primarily dependent on motivational factors, which made them unreliable and evidence of this emerged during the Multistage tests. However, the purpose of the test was never to ascertain absolute VO_2max values, but rather to compare the fitness scores of the two populations, given the same criteria and conditions, including motivation. The fact that motivation appeared to be a problem for both groups may have evened out this variable to some extent.

The use of the Multistage test to measure the aerobic fitness of all the SCP pupils was at odds with the policy of the programme that was essentially aimed at conditioning only team players. Those SCP pupils outside the team were not considered to be really important by the coaches, one of whom was a little peeved that the results of those non-

team players were dragging the results down and, therefore, not a fair reflection of the team players: the true SCP personnel. This reflects a non-equalitarian division and raises a question mark about ethics within the programme structure. In support of the Multistage test, however, the badminton coach suggested, during an interview, that he was interested in using it, as part of his training programme, but in spite of being given a cassette-tape and instructions, the test was apparently never used.

8.4.3 Sports Results

One of the primary objectives of the SCP programme was to maintain and, if possible, improve the school's standing in ECA competitions in each of the three major sports (refer to Table 8.6). After four years of the SCP the Zone championship results in 1997 exceeded the results from any year since 1991, when CHS won all 12 titles: every age group, both genders and all three sports. This feat had never been previously achieved in the history of the school.

Table 8.6: Zone Championship Sports Results from 1991-1997

Game / Division		91	92	93	94	95	96	97
Badminton	B Girls	2	1	1	1	1	2	1
	C Girls	1	1	1	1	1	1	1
	B Boys	2	-	1	1	1	2	1
	C Boys	3	1	1	2	2	1	1
Basketball	B Girls	1	1	1	1	1	1	1
	C Girls	2	1	1	1	1	2	1
	B Boys	1	2	1	1	3	3	1
	C Boys	1	2	1	1	1	1	1
Table tennis	B Girls	-	-	2	2	1	2	1
	C Girls	3	2	3	1	1	1	1
	B Boys	3	2	3	4	4	3	1
	C Boys	3	-	-	3	2	2	1

As can be seen in Table 8.7, it was very much easier for the table tennis teams to win the Zone Championship than it was for the badminton and basketball teams. In the period before 1990 the basketball team had held the prestige of being the premier sport in the

school until 1991, when badminton took over the mantle. By 1996, this status had gone full circle and table tennis was now the school's Number 1 sport, fulfilling the goals of the girls' table tennis coach, mentioned during her interview in 1994.

Table 8.7: Number of Teams in East Zone Competitions

Age-groups	Boys	Girls
Badminton 'B' Division	17	11
Badminton 'C' Division	15	10
Basketball 'B' Division	27	11
Basketball 'C' Division	25	7
Table tennis 'B' Division	10	6
Table tennis 'C' Division	11	6

In the National Championships in 1997 (refer to Table 8.8), nine out of the twelve teams gained honours. The basketball teams were the least successful of the three sports with only two of the four age groups placed in the finals.

Table 8.8: National Championships Results from 1991-1997

Game/Division	91	92	93	94	95	96	97
Badminton	B Girls	1	1	1	1	2	2
	C Girls	1	1	2	1	2	1
	B Boys	4	-	-	½	3	3
	C Boys	-	2	2	-	3	-
Basketball	B Girls	1	4	-	4	-	3
	C Girls	-	-	3	2	1	-
	B Boys	2	-	3	3	-	-
	C Boys	1	3	-	2	1	2
Table tennis	B Girls	Na	Na	-	-	4	2
	C Girls	-	-	4	2	3	1
	B Boys	1	-	-	-	4	2
	C Boys	-	-	-	-	3	1
Points	24	14	15	24	27	19	28

By allocating a scale from 4 points for first (National Champions) to 1 point for fourth and 0 points for no placement, the 1997 results were the best since 1991 with a total of 28

points scored. The previous most successful year had been 1995, when 27 points were achieved: this success was true both academically and recreationally and results from the Multistage test also identified 1995 (Secondary 2) as the best overall year in fitness standards.

As the SCP officially started in 1994, the results can be seen to be not only consistent but also improving, almost without exception. Although results in 1996 deteriorated, all four of Cathedral's badminton teams reached the final in the national championships: an achievement that had never previously occurred in the school's history. Although all of the teams finally finished as runners-up, the media overlooked this achievement and did not accord appropriate recognition for this feat. In 1997, the table tennis teams produced the best results of all three sports by winning two Championship and two Runners-Up Titles, making up half the total points scored by CHS in the Nationals. It was also quite intriguing to note that, in spite of some negativism coming from the girls' interviews, as well as the trend in their fitness results, girls were relatively more successful in the national championships than boys. Although girls scored 16 points overall compared to 12 points scored by the boys, when reflecting on the Multistage fitness data, it is a little surprising that the 'B' girls basketball team turned out to be as successful as they were. It is possible that there is no meaningful correlation between fitness and success for girls in ECA competitions at this level and the girls' results may well indicate that the standard of competition for girls was not as demanding as that for boys. Certainly, there were considerably fewer teams in the girl's Zone competitions (refer to Table 8.7) that made it much easier to train the girls into a successful team, as the badminton coach reported in his final interview (1997).

As suggested previously in Chapter 5, it would be unfair to measure a school's success purely on its examination success and/or competition results alone. An assessment of the SCP is much more complex than simply examining these results, because there are many factors affecting them. To focus only on a comparison of results, such as a significant increase in the number of players at combined school level, might indicate a measure of

the programme's quality, or to use popular Singaporean parlance 'value added', but this would miss other important and meaningful data about the programme.

The Principal believed that sporting success, especially in 1997, was largely dependent on the school's intake rather than the calibre of coaching or the development of potential. He believed that this was obvious from some of the rival schools, which had been more successful in attracting better talent from the primary schools. Coupled with the issue of intake was the fact that more schools were employing foreign coaches and sport was attracting more status and gaining social recognition, which meant that the quality and calibre of sport in the SCP was continually being challenged. This ultimately had the effect of watering down the impact of the progress and results of the SCP, but, equally, it must not be forgotten that the programme was, additionally, also developing the academic talent of these sports players. In terms of the calibre of the intake, however, only three pupils, two basketball boys and one table tennis girl, reported that, by the time of their interviews, they still had ambitions to represent their country, which accounts for a very small percentage of the talent contained within the programme. This figure compared with 50% of the group that had strong sporting ambitions in 1995 and ten pupils, who, at that time, indicated having a serious ambition to become sports professionals.

The English Football Association (Pickerin, 1994) was concerned about the excessive number of competitive matches youngsters were playing in a season, however, in Singapore, the problem is completely different, in that all players in school teams train excessively, yet only play a few competitive matches. Coupled with the fact that you have to be in the team to play and there is only one team for every two years in school, even if you are above average ability for your age, you might still not be able to play in a match for your school. So the Australian and British models, where multiple teams represent the school at different levels, are considerably better.

The number of pupils playing in CHS teams is relatively small, when the size of the school population of over 1200 is considered. There are approximately seven players

used for the badminton team, a similar number for the table tennis team and twelve for the basketball team in each of the genders. As there is only one team for boys and girls in each division and this team represents two years in school, amounting to half of the secondary programme, there is insufficient exposure to competition on a regular basis for many children. This under-provision is something that the ECAC must take a serious look at, but the Principal, on the other hand, believed that it was the responsibility of the Singapore Sports Council to encourage more grassroots participation. Administrators, therefore, are responsible for severely limiting the scope for sports participation through their current organisational structure. If sport is to be taken seriously in Singapore's schools, there needs to be a reconceptualisation of how sport is organised, in order to produce a more competitive and developmental playing environment for all schools. It is to be hoped that, when the majority of schools are single session from the year 2000 onwards, there will be a fresh approach to the organisation and administration of school sport.

In future, CHS must also take some responsibility for developing not only the talent in the alternate years, but must offer all SCP players opportunities to represent the school in some form or another, such as a reserve match against another team in a friendly competition. As is common practice for schools overseas, in the UK and Australia at least, the development of reserve teams at each level would also help to maintain the motivation of the non-team players in training. Very little friendly competition is organised by Singapore schools, as the tradition and culture has been only to play in ECAC organised matches, although there is evidence that this might be changing in some sports. The Netball and Rugby Associations are changing these behaviours through organised school competitions throughout the season, but the initiative has not yet filtered through to the schools taking responsibility for organising their own matches. Singapore schools play matches mainly in the major organised competitions at zone or district level and then only at national level, should they qualify. This would appear to be insufficient for players that train 3-5 times a week all year long and every day during school holidays. School competitions, therefore, need more grade level differentiation, as well as more competitions throughout the season, including more teams from each school in each age

group, if a serious competitive standard is to be achieved. However, to achieve higher standards in youth sport, a major shift in mindset and in organisation will be necessary to overcome the dominant value that sport and physical education cannot survive side by side with tests and examinations.

Another difficulty included in the organisation of school fixtures involves age discrepancies and occurs in the 'B' and 'A' divisions. George Suppiah, ex-teacher and former FIFA referee, suggested that, in reference to soccer (Straits Times, 25th April, 1997), one of the problems with the schools' age group competitions was that they were unfair. This inequity was due to an age discrepancy, where older players from the normal technical stream and the Institute of Technical Education were competing against younger players from the Junior Colleges. He stated that two, even one year's advantage in age, made a huge difference in soccer, putting some schools at a serious disadvantage, and made all the difference between victory and defeat in this sport. The same criticism, levelled by the basketball coach, is also fair in other sports at 'B' group level, where 15 year olds have to compete against 17 year olds in basketball. According to Ong Lye Huat, Deputy Director of ECAC, changes were being reviewed and were in the pipeline as "we are aware of the age differences in the present three-divisional structure" (Straits Times, 25th April, 1997).

In a similar vein, the Principal had appealed to the ECAC in another controversial incident when he considered the schools championship regulations to be unfair. The 'B' division basketball boys from CHS missed out on playing in the final of the 1997 national championships, which was bitterly disappointing for the team and for the basketball coach, as they had won this competition as second year pupils in 1995 and had trained intensively for this event. CHS had high expectations of doing very well, as they had previously beaten both of the teams who appeared in the final in an earlier round robin stage of the championships. However, through a quirk in the tournament organisation, they did not score enough points in a preliminary match and as a result their competitors were allowed to take advantage of this. The basketball coach reported that this happened because of the way the tournament was structured and because the system was open to

abuse, as they had lost only one match but did not score enough points in the preliminary round. Owing to a loophole in the rules of competition, CHS were disqualified by two teams that had colluded into compromising their results to keep them out. This is an example that is endemic of the sports culture in general, where ethics are often compromised, winning is overvalued and the ends justify the means. This incident was a serious disappointment to Cathedral who had trained hard and had been confident of winning the championship.

The fixing of schools' matches to allow certain teams to progress in the tournament is not unusual in local sport and represents further evidence that the coaching accreditation scheme has insignificant influence on the morals and ethics of some of the coaches. There is additional anecdotal evidence of this behaviour within the region, as in a recent international soccer tournament in Vietnam, Indonesia and Thailand played out a "sham" (Straits Times, 1st September, 1998). Even after a half-time warning by the tournament commissioner, the "final five minutes were the height of mockery", with the Indonesians scoring an own goal to lose the match. All of this behaviour was contrived to select better opponents in the semi-finals and was considered as an acceptable opportunity, in the eyes of the respective managers.

8.5 Physical Education

A survey by the Singapore Sports Council, in 1997, indicated that six out of ten Singaporeans select a sport that they were interested in or taught in school and only 30% because of any influence from family or friends. This is an important factor to be considered by physical educationists to ensure that pupils are given, not only a good physical experience, but also are provided with opportunities to taste a variety of sporting options during their life at school.

During the period of the study, there was a dichotomy observed between sport and physical education. Sport was for those who could play well, the elite, and the subject known as physical education was often observed as unsupervised play, conducted with

the Principal's blessing, essentially for cathartic purposes. As one of the non-team basketball players (interviewee: 11) reported:

From what I know from my friends in the ordinary class, during PE they just run around, or maybe they don't even come at all, but sports class we are really serious in our work.

Compared to the very high number of SCP players (96%), who described the coaching as 'good' or better in the Secondary 2 Questionnaire, only one third of NSC pupils thought that physical education was well taught. More than half the NSC pupils (54%) thought that the SCP pupils had a more enjoyable programme of sport and physical activity and more than a quarter thought that the SCP pupils received better tuition. Almost three-quarters of the NSC pupils reported that SCP players were able to use better facilities and better equipment and a similar amount thought that the SCP pupils received more personal attention in sport and physical activity than they themselves did. Physical education did not appear to be matching the expectations of the NSC pupils and it was also possible to infer, from the NSC pupils' responses, that physical education was not very important, as the majority of them did not even respond to the question.

From questionnaire and interview responses, the SCP players perceived that the physical education process was inferior to their programme of sports. They deduced that there was no benefit to be gained from physical education, as they had observed that the NSC pupils were left to their own devices to organise themselves in whatever they wanted to do. The Principal was reported to be happy with this procedure, according to one of the coaches, because the children were under no pressure to participate and this practice was useful, as it helped to reduce their levels of stress. The image and quality of physical education that was not only observed but also reported previously by the SCP members, could have been significantly improved and developed for the benefit of all, had the physical education staff not been so pre-occupied with their teams and their competitions. This would have helped to diffuse any feelings of jealousy by the NSC pupils, as a result of the programme's perceived bias. However, the physical education staff did become more involved in the physical education programme when the annual NAPFA fitness test

had to be conducted for official ranking purposes. During this period, which occurs outside of the tournament season in the second half of the year, the physical education teacher/coaches assume control of the fitness training and testing for the whole school. This may succeed in establishing the importance of fitness within physical education but it also creates the notion that fitness is the *raison d'être* for physical education, a flavour that pervades the school system. This perception is further reinforced by the media, who frequently portray physical education through photographs of school pupils doing sit-ups or push-ups under the supervision of a so-called 'physical training instructor'.

In a 1995 questionnaire response, about the purpose of physical education lessons, almost four out of five NSC pupils (78%) thought that its role was to get them physically fit, only 6% thought differently. This was a disappointing result from a physical education perspective, when fitness was perceived to be the major, if not the only focus of the programme. A relatively large number (29%) agreed strongly with this statement but considering the cultural and political importance of fitness, as referenced in earlier chapters, this is not a surprising outcome, as it has been the dominant value expressed through the importance of ranking within the discipline of physical education.

The concept of physical education in Singapore schools is not just dominated by fitness but also there is an adult competitive sport orientation that values winning as an ethos and consequently, a great deal of attention is focused on the talented sports person. Those pupils, who do not fall into this 'elite' bracket, are subjected to more fitness or large quantities of unstructured play. Unfortunately, schools, which are designated to have poor fitness profiles from the Fitness Ranking exercise, are encouraged by principals to devote much of their curriculum time to improve their fitness status, to the detriment of physical education and the pupils.

As is stated in the literature, physical education is marginalised by elite sport and fitness pressure groups and this proved to be an outcome in this study. A level of marginalisation was evident through the behaviour of the staff, who showed little interest in teaching the subject but preferred to spend their curriculum time working with the

school teams. The fact was that the NSC pupils were losing out in their supervised physical education time and they were also losing out by not having access to the better equipment and facilities, which were reserved for the SCP players and this impacted negatively upon them. As Gummerson (1992) stated, physical education teachers were facilitators of learning for all pupils, not just the elite, and there should be an equitable distribution of resources within the curriculum.

Coaches, rather than teachers, are employed to develop standards in school sport and extra-curricular activities in many Singapore schools. Evans (1987) talked about coaches, as well as teachers, associating winning with success and losing with failure and there was some reluctance on the part of the SCP coaches to relinquish their team of boys or girls for the greater good, as the results would be less predictable. It was difficult to accept that a badminton coach and academic subject teacher would not support the boys when they had no coach, leaving them without any tuition or direction but would rather continue with the girls throughout, to safeguard the school's reputation. This deficiency supported Martens' (1988) point that tactics were adopted that would likely lead to success and by implication personal achievement and also supported the fact that producing teams purely for winning corrupted the flavour of excellence and neglected overall well-being. The badminton coach was very disappointed that this cohort of girls was the first in seven years to lose the school's national title and this appeared to dent his pride as a coach. When winning was pursued to an extreme, and, in this case, there was some evidence that it did, it often resulted in behaviours that destroyed childrens' self-worth and robbed them of any fun in playing. Although there was no evidence of the self-worth being affected in the main sample, the interviews showed some dissatisfaction and disdain for the badminton coach from the non-team players, who indicated that they had not only been marginalised, but the game had become less enjoyable than previously.

Crum's (1993) perception that, on most continents, physical education was marginal to the main purpose of schooling, as well as to sport in the culture generally, was very true for Singapore and particularly in the study, because, essentially from a curriculum perspective, physical education, as such, did not exist. As previously suggested

(Alexander, 1996; Horton, 1993; Orlick, 1978; Thorpe and Bunker, 1983), the competitive nature of sports served as a dysfunctional feature for many physical educators and in this study it was 'elite' sport that became the orientation of the physical education programme and essentially replaced it per se. Although the programme was designed only for the players that were good enough to play in the school team, the 'winning is all' mentality did not appear to be the prevalent doctrine, in spite of the coaches and players wanting to win for the school. In this respect, as Rees (1992) suggested previously, some of the ends were beginning to justify the means. Klug (1994) suggested that pressure for success caused deterioration in personal development and there was some evidence to suggest that this was happening. The importance of the SCP teams caused a deterioration in the physical education provision for NSC pupils, but there were also non-team players in the SCP that were being marginalised. The opportunity to do anything a little different or to diversify, as had been advocated by the coaches and the Principal, never occurred in spite of the fact that it might be in the players' best interests. Although this may be considered as a failure, the SCP was never intended to remodel physical education, but rather, to package school sport by streamlining the process for product outcomes. ECA success would enhance the image of the school and, through association, the image of the Principal and the coaches, however, media publicity, which added to this status, created a lot of extra pressure for the players. Successful and enjoyable experiences in sport were crucial to the future involvement of the SCP players, however this programme occurred in an educational vacuum, as there was no programme extension in the Junior Colleges or in the Polytechnics. This follow-up would have to be an essential requirement, if the fruits of the endeavour were not to be cast on barren ground. The NSA's must implement, through SPEX2000, a programme that will take over from the SCP initiative, without detriment to the players' educational advancement. The time is currently opportune for this to happen, as Singapore's universities are now factoring in other areas of achievement besides 'A' level accreditation and sport has become one of the major prerequisites for admission.

The malaise of physical education was often caused by dysfunctional programme structures, according to Alexander (1996), where programmes failed to reach professional

standards. The study observed that there was insufficient care, time and effort spent on the NSC pupils because of the SCP structure. According to questionnaire findings, this led to non-egalitarian practice, which resulted in physical education becoming boring, unexciting and irrelevant to many of the pupils who valued physical activity as part of their lifestyle. If, as Fox (1996) suggested, the physical education programme was an important agency in the promotion of physical activity to offset the trend in unhealthy lifestyles, the curriculum time was not living up to its accepted or professional function.

Evans' (1987) concern about the difficulty of developing giftedness within a physical education setting was reflected in this study to a certain extent. The SCP created an unbalanced lifestyle for its participants, who had to put in a lot of extra effort for the school and the programme developed an inequity of provision in its attempts to achieve its mission. This represented the moral dilemma that Horton (1993) mentioned in his article on children and elite sport. The imbalance had an implication not only for the coaches but also for the academic teachers, who had to carry the additional burden of academic as well as remedial support. One of the ironies in the study was that the success created by the SCP legitimised the inequity of physical education provision by making the programme much more important for the school, the coaches and the players. The status of physical education was further compromised, as reported by a trainee teacher on attachment to the school, when there was no supervising teacher for physical education. The trainee was allocated classes belonging to a relief teacher that had been laid off as a consequence of the teaching practice and the Head of Department was unable to act as a mentor, as he was co-ordinating the basketball tournament for the East Zone. In effect there was no one to mentor or supervise the student teaching and technically no-one to write a summative report on his behalf. This not only represented a negative feature of physical education in the school, it also highlighted how teachers become compromised through the organisation of sport tournaments during school hours. However, the status of physical education was enhanced, in 1997, through the appointment of a young graduate-specialist to the department. Apart from teaching some science, his main responsibility was to teach physical education and he had no part to play in the SCP. He was, however, given responsibility for one of the enrichment

programmes and charged with the responsibility of developing soccer for the NSC pupils, as a tangible attempt to correct some of the inequity of physical activity provision.

Chapter 9

The Providers

This Chapter considers the implementation and development of the SCP from the perspective of the major education providers:

- The Government;
- The Principal;
- The Teachers/Coaches.

The opinions of the Principal and staff of the SCP will be synthesised, analysed and compared with each other through major research themes (refer to 9.4) to produce a coherent interpretation of their perceptions. Finally, moral issues that have emerged out of the evaluative research process will be discussed in relation to improving the quality of the SCP model.

9.1 Singapore Government

Having sustained its economic growth and maintained its competitive edge for most of the period of study, Singapore was affected by the 'Asian flu'¹¹³ towards the end of 1997. However, the resilient success of the Singapore economy in the prolonged regional crisis reflects the foresight of the government in securing its economic infrastructure against unforeseen assaults.

The Singapore government introspectively used this economic downturn to reposition the nation for the inevitable recovery as a knowledge economy. Education, retaining its vital status, was injected with greater funding and new initiatives, such as National Education, were introduced as a compulsory part of the curriculum, in order that the hard lessons learnt from Singapore's history were revisited. The moral, underpinning this policy, was both to educate young Singaporeans about the sacrifices made by their forebears and the vulnerability of the nation, as well as how national unity in a multicultural society

¹¹³ This refers to the regional financial crisis that commenced in Thailand in 1996/7 and has spread throughout the region crippling economies right left and centre.

enabled the workforce to aspire to new challenges. Social cohesion is once again the rallying call being used by the government to fight the economic battle faced by the country.

The government, through the agency of the Singapore Sports Council (SSC), is still determined to improve the corporate health of the nation, as a major factor in a revitalised economy. In 1997, politicians were unhappy that only 34% of the public exercised once a week, in spite of the millions of dollars spent on media publicity to promote exercise programmes. Consequently, on the 18th October, 1997, the Prime Minister announced that a further \$2.5 million would be set aside over the next five years to encourage the corporate sector to develop their own fitness structures for their workforce. In conjunction with this additional funding, the SSC set a new target for national exercise to have 50% of Singaporeans exercising at least once a week by the year 2005. To promote the role of exercise and activity in citizens' lives further, government Ministers frequently flag off major exercise events for charity, to enhance the political endorsement of healthy lifestyles.

9.1.1 Foreign Talent Policy

The import of sporting talent, as part of the national policy of attracting foreign talent at the executive level, was evidence that SPEX2000 has not been terribly successful or was not performing up to expectations. S. Murali (Straits Times, 6th October, 1998) reported that, owing to disappointing results in 1997-1998, there was to be a "second major revamp" of the SPEX2000 scheme in preparation for the next millennium.

As young players in badminton, basketball and table tennis are being wooed from China by the NSAs as part of this foreign talent process, the Principal believed that a sports specialisation programme was necessary. Mr Tan believed that the SCP concept was relevant and valuable for a significant role in the all-round development of these foreign students owing to the Chinese culture of his school and the hostel facilities that were available. The problem with the present system, he thought, was that foreign students found the academic standards in Singapore too demanding and they just could not afford

to spend the same amount of time on games. The Principal believed that it was unjust to take advantage of foreign students' sporting ability only to represent Singapore and to ignore their overall welfare in the process. Mr Tan stated that if these players were in China or elsewhere they would be supported, as these countries had a scheme for retired players, but there is currently no such scheme in Singapore. The Principal continued by saying:

if we (*Singapore*) are really serious about recruiting foreign talents, including the sports talents, then we must have some scheme like the SCP, otherwise there is no point to bring in these people and then not to look after their studies.

The Principal's statement implied that taking advantage of the foreign players in this way was an abuse of privilege and this can be seen as a criticism of the society and its culture of sport. The Head of Department (HOD) suggested that because of Singapore's foreign talent policy in basketball and table tennis, where foreign players were so much better than locals, there was little or no incentive for Singaporeans to even try to take that sport seriously, in spite of the sports' apparent popularity. Although this represents a negative prospect for aspiring players in these two sports, it does not affect the SCP directly, however, this perception could well influence the players' intentions to continue seriously with their sport after they leave CHS. If this indeed does happen, the Principal's goal of producing national talent will be less likely to materialise.

9.2 The Principal

In an attempt to establish and interpret the Principal's motives for implementing the SCP, he was interviewed annually to discuss the research programme, in order to gain a better insight into the implementation and development of the SCP. Mr Tan strongly valued the role sport played in the history and traditions of the school and clearly advocated sport for the holistic development of his pupils. Concerned about the low image and status of sport in Singapore schools, but motivated by CHS's previous track record, he saw a window of opportunity to create a system that would support athletes in their studies.

The Principal rejected Singapore's traditional, conservative view that studies and sport do not mix and took a calculated risk, in establishing the innovative SCP model.

At a dinner in his honour, in March 1997, the Principal recounted how, in 1994, he had put his job "on the line" by advocating and implementing a special sports' programme for his students. He announced that he would resign if in three years time the scheme was unsuccessful, even if the school maintained its academic standards. Mr Tan reported that as a result of the SCP the school had won all twelve East Zone titles in badminton, basketball and table tennis and also that the athletes' 'O' level results were better as a whole than those of the other pupils in the school. Mr Tan described one of the benefits thus:

The principal difference between these classes and the rest of the school was that the athletes would skip studies altogether whenever there was a major tournament in each sport. The athletes and teachers who were not taking part in the tournament also attended it to support their classmates.

Straits Times, 14th March, 1997.

The key word in this statement is "altogether" as it highlights the Principal's notion of unification in the programme's design, but also his organisational pragmatism for reducing inconvenience to the curriculum. The second sentence also appears as an exaggeration as there was no evidence from the players' or the coaches' interviews that they supported each other in tournaments, owing to the irregular scheduling of these events. However, Mr Ho Leng Woon, the management committee vice-chairman added support for the Principal's judgement by saying:

I was one of them who thought that he was too ambitious. I argued that he should concentrate on moving the school academically. Today, I will be the first to admit that I was wrong. Indeed, the Principal has shown us that sportsmen can not only cope with both their studies and games, but even outdo others.

Emphasising this point, badminton player Julianna Huang was a graduate of the SCP and had the distinction of scoring eight A1's in her 'O' level examinations to become one of the school's top academic students.

9.3 SCP Teachers/Coaches

Formal interviews were also conducted regularly with the coaching staff over the four-year period of the study. Each of the teacher/coaches interviewed, three males and one female, was responsible for either the boys or the girls in their respective sport. At the very inception of the SCP, three coaches were members of the Physical Education Department, including the HOD, and the other was a Chinese language teacher, who was also the form tutor of another SCP cohort. During the course of the study two major changes occurred in the school coaching personnel. The HOD, who was close to retirement, stood down as the girls basketball coach and was replaced by an external coach, while the female teacher-in-charge of table tennis was also replaced by another member of staff, who was another SCP form tutor. As a result of the teachers-in-charge of the three sports being 'Chinese educated'¹¹⁴, their reported use of English was quite limited and Chinese naturally became the language of instruction for the SCP pupils. As all of the coaches had been qualified through this Chinese medium, a transmission of this culture occurred automatically; something that impacted negatively on one or two of the players¹¹⁵. Nevertheless, all SCP coaches had officially recognised coaching qualifications and some had previously been national players or national coaches.

9.4 Research Themes

9.4.1 SCP Implementation

As early as 1994, the girls' table tennis coach suggested that SCP policy was to cater for team players only, so that CHS could perform better in school tournaments. The badminton coach reiterated this point in 1997, confirming the instrumental nature of school policy for the development of sport and the welfare of the students.

¹¹⁴ Older Chinese teachers in Singapore were educated only through the Chinese language.

¹¹⁵ Although all of the SCP players were of Chinese descent, some of the traditional values from China contrast somewhat with the progressive values held by Singaporean youth.

Initial impressions of the SCP, compiled from the coaches' interviews in 1994, were favourable. At the end of the first year of implementation all four teachers unanimously agreed that the SCP had benefited the three sports as well as the athletes' academic progress. The girls' badminton coach as well as the girls' table tennis coach thought that as a result of having been taught by the best teachers and benefiting from a modified timetable, the academic results of the SCP pupils in 1994, were better than other classes. The boys' basketball coach stated that sports results were also better than those of the previous CHS team players. The SCP idea, of having all the players in the same classes, in the opinions of the coaches, substantially reduced disruption to the timetable, particularly during the tournament season; it also allowed the administration to monitor the athletes' studies more closely and to more accurately determine the pupils' remedial needs. The boys basketball coach stated that the additional training had improved the playing performance so much that "the Secondary 1 basketball players had reached a standard in one term that last year's players had taken two terms to achieve."

Three years after implementation, the Principal admitted, "the SCP is now going well" and subsequently, in 1997, added reflectively, "I think it meets our original target to help these students in their studies": implying that the SCP had been successful. In believing that almost two thirds of the players had benefited from the programme, he also stated that all of those pupils', accepted in 1994 below the PSLE requirement, who remained in the programme, had qualified for Junior College. He believed this represented "value-added in their studies", as they technically did not qualify to be at CHS in the first instance. However, the reality was, five SCP players (38%) were either retained for an extra year or transferred out of the school completely, as they were unable to maintain the required academic standard. A further three pupils were transferred to non-sports classes within their year group in the final year of the study.

9.4.2 SCP Structure

From the analysis of the programme's development, the Principal attempted to streamline the selection process for the SCP. He thought that, as it took a full year to determine

those with the ability to represent the school, all first year pupils in the SCP would normally be included in Secondary 2, even in the knowledge that some would not make the team. As he did "not want them to waste time any more" in the SCP, they would be withdrawn by Secondary 3, if they were not of team standard. Clearly, this policy underlines the instrumental nature of the scheme; it is far too product oriented and lacks rudiments of genuine care. In his final interview Mr Tan stated that:

We do not want those pupils, weak in studies, to spend too much time on sport and even in extreme cases where their parents feel that they did not want the student to represent the school, that would be acceptable to the school. The pupils needed to understand that being in the SCP meant they had to be good in both studies and skills. Since they had been told of this requirement all these years, he had to implement the system otherwise all the values cultivated in them from Secondary 1 and 2, wouldn't work.

He, thus, directly suggested that, in the future, there would be a smaller number of SCP pupils in Secondary 3, although he implied that there would be a better ratio of pupils to the school team. This further demonstrates that the Principal subscribes to an instrumentalist, elitist ideology, portraying elements of the dominant macro-perspective, that if you are not up to winning or achieving the team standard, you should find an alternative extra-curricular interest.

In 1996, Mr Tan introduced prizes, specifically for the SCP, to bolster academic attainment and to give the players additional recognition in the annual awards. As a further consequence of his concern for this cohort of SCP pupils, as measured by their test results in Secondary 3, he made another modification to the structure of the programme to strengthen academic attainment. Ironically, this modification removed all SCP sport periods in Secondary 3 and 4 for the very first time, which, in effect, marginalised the domain by substantially reducing the time for sport, when compared to previous years. Mr Tan, obviously lacking confidence in the original programme structure, needed to show that the SCP pupils were as good academically, if not better than their NSC counterparts and thus endorse the value and *raison d'être* of the programme. When the Principal decided to remove the morning training session from the SCP, he believed that the time should be used for their academic studies, rationalising

that the loss of training once a week was not really significant. The Principal stated that his actions were influenced by the fact that sometimes the academic attainment of players, who were transferred out from the SCP, genuinely improved because, based on the preliminary 'O' level results, some of the pupils, who had been withdrawn from the SCP, had done well. This reinforced the principle, even in this sports concept, that there is no escape from the tyranny of academic accreditation. The academic support previously offered to these students was just not having any effect, because it was either insubstantial or was, in fact, not happening (coaches' interviews). This modification highlighted the Principal's anxiety that the most important goal of the programme, to ensure that it would enable the athletes to balance their studies and their sports, may not be achieved. However, by showing positive results from the SCP pupils in academic achievement, the future of the SCP would be secure and Mr Tan confirmed, in his interview, that the programme structure would continue on the same lines as in 1997.

Although the loss of sports periods may not have been significant to the Principal, it could have far-reaching psychological implications for the pupils, because the *raison d'être* for being in the SCP had been removed, along with the level of privilege that came from belonging to the programme. Mr Tan did not believe that this would put extra pressure on the amount of after-school training because "we are only talking about one and a half hours training in the morning" and he did not think that the reduction would significantly affect the training programme; however, he was wrong. The coaches simply increased the number of after-school training sessions by at least 30% to make up for this deficiency.

The table tennis coach believed that the loss of SCP sport periods in Secondary 3 and 4 was an erroneous time-tabling oversight and he also thought that this would be corrected, not realising that it was, in fact, a policy decision. Both the badminton and basketball coaches were very disappointed about the decision to change these sport periods to academic classes, although they acknowledged that the administration had its reasons. Both coaches saw it as a betrayal of the SCP concept and another example of the players losing the benefits granted in Secondary 1. "Our programme has been affected, also the

players themselves found it very depressing” said the badminton coach. The basketball coach felt so strongly that he had already raised the issue with the Principal in his annual appraisal, as he believed that the new structure did not help him at all. This major change made little sense to the coaches, particularly as the NSC pupils still had physical education lessons and it also proved counter-productive for the sports players, who were already under extreme pressure, as it meant that they would have to attend more afternoon-training sessions to compensate for it. The SCP form tutor stated that the players felt let down, as this came at a time when they were losing other privileges and he added, significantly, that they had lost some of the pride previously felt as a SCP pupil. They were no longer able to wear their special sports shirts or training shoes to school, which were valued as important status symbols and privileges.

After several years of analysing sporting results of top school athletes that had transferred to Junior Colleges (JCs), Mr Tan had come to the conclusion that JCs needed a similar initiative to the SCP. He found that sports players would effectively give up their sport and thus the chance of becoming a national representative because the academic priority in JCs placed too much pressure on them. The Principal said that he would now encourage those aspiring players to attend polytechnics, where the pressure is different and the opportunities are still available to play good quality sport, but so far he had been unsuccessful in persuading any individual to do so. This choice indicates the power of Singapore’s meritocratic culture and the importance of the Junior College in the career path of this calibre of student, many of whom are aspiring to attend university. In the SCP players’ interviews, while one in five of the players hadn’t given their future any serious consideration, attending university was specifically mentioned by a similar number of pupils.

In 1997, a structural adjustment was brought in by the Principal to reduce the SCP from two classes to one. This change was intended to ease the emotional turmoil that was created when some pupils were eliminated from the programme going into their final year. However, all three coaches agreed that the original two-class structure was better than the present one. The table tennis coach thought that even if the two-class system

was retained there should be no need to demote the non-team members into ordinary classes as late as Secondary 4, thereby lowering their morale. Badminton and basketball were the sports that would suffer most from this latest modification because these sports required larger squads and there would no longer be enough players to choose from. The badminton coach said that the initial selection process¹¹⁶ created problems because early decisions had to be taken hurriedly and selection mistakes were made before they had a clear picture of the pupils' ability. Once the pupils had been selected, it was a difficult and emotionally troublesome process transferring them out. In its current design, the SCP obviously cannot adequately cater for the players, who are not of team standard and the badminton coach described it thus:

After half a year, we still look out for some good players from the non-sports classes and then at the end of the year, we find that, in my case, I think 30% of the players actually they were not from the Sports Class two years ago when they were in Secondary 1. We join them in, and then we observe their PE lessons, manage to find one or two sports players. We ask them to change their ECA. So if we had two classes, we might be able to keep them, we don't have to search now we have only one....7 players for badminton is not enough to form the team, and also basketball as well I think they got this problem.

He, thus, advocates the notion of a squad system, as many of the best senior athletes are known to come from the pack, particularly in team sports. Both badminton and basketball coaches were doubtful if the success of the SCP would continue, as they thought that the reduction to one class was unbalanced and would not support or develop enough team players in their respective sports. The badminton coach also thought that the quality and enthusiasm of the players was dropping and all three coaches believed that the academic support, which had been provided earlier, was vital. Expressing his concern for the future, the basketball coach said that:

Singapore is about study, this type of system, if you want the students to cope with both at the same time, its very difficult. Sometimes you have to learn how to consult their parents. It's not that easy. Even our own schoolteachers are not very helpful. To me, they didn't show that they were very supportive.So, if we can all work together, hand in hand, then we can achieve success.

¹¹⁶ At the time of the study there was unfortunately no official recruitment exercise.

The basketball coach also had reservations about the SCP model succeeding in any other school owing to "the calibre of our students" and as suggested by the HOD "the belief of our Principal in the value of sports". There was unanimous agreement from these teachers that in the Singapore context "academics must come first", as studies were much more important and therefore had to be closely monitored. Emphasising the dominant mind-set in Singapore, every coach mentioned that it was necessary to hold training sessions during the holidays to further develop their squad in preparation for the Zone Championships that fell shortly after the December recess.

9.4.3 SCP Goals

The Principal stated that the SCP would definitely continue along the same lines as in 1997, however, after four years the programme had only met two of its four main objectives that were supposed to help the students excel in both their studies and their games. As part of the innovation process the Principal indicated, towards the end of the study, that he was reconsidering one of his original objectives, which was "to develop some national talent." Mr Tan stated that a reconceptualisation of the programme's goals was necessary because, since starting the sports specialisation programme, he had received confirmation that it was even more difficult than it had been previously, to produce a national standard, strictly from a school base. He had formerly thought that developing national talent could be achieved through the SCP, but he had found that the production of elite sports people was actually very difficult. He realised that, if these sports pupils were denied a separate or modified curriculum, they just would not have enough time for the skill training that is necessary to meet a national standard. Talking of national levels, he believed that after four years in the programme the players had to reach a specific standard that could be further developed, but most of them, he realised, were still not good enough to be developed into national players, because of the 'limited time for training'. The Principal conveyed a perception, popular in Singapore, that 'quantity' or 'time' is the critical variable for sporting excellence rather than the calibre of the athlete or the coach or indeed the values of the family in supporting such an objective. From a research perspective, the SCP players appeared to have plenty of

training time, so its most likely that the intake lacked the necessary potential to be national players. The Principal had lowered his sights because of this and he was no longer emphasising the development of national talent to the same degree. Although the original goal of developing national level athletes was somewhat nebulous, he knew that without official recognition that allowed him to administer a more flexible curriculum, this aim was very difficult. Mr Tan still hoped to achieve official recognition for the programme however, but, if the players had to study an identical curriculum over the same period as other students, it was impossible to achieve this objective. This highlights a need for future studies of alternative curricula in the UK, Australia or Europe and clearly represents a major paradigm shift in view of his original expectations of the programme's goals (see p.53).

It was a major disappointment for the Principal that he still had not received any official recognition or support for this programme, in spite of the political rhetoric supporting the importance of sport for the nation. This effectively meant that all of the constraints, which Mr Tan had been experiencing, were unresolved and there was nothing more he could do about it. He believed that the SCP should be officially considered similar to an elective in music, art or language, enabling him to modify the existing curriculum to further benefit the sports students. Nevertheless, the Principal was currently comfortable about the role of the SCP in the school curriculum, as he stated that he no longer had to spend too much time monitoring it. However, Mr Tan added:

the only thing that I have to look into is the feeling of the sports students because I know that, as this has become the main programme in the school, everyone is looking at it, so I can understand some of these sport class students are going through a kind of pressure because they have to perform well, in studies as well as in games.

9.4.4 SCP Privileges

The Principal naturally dismissed the suggestion that the reduction of privileges was detrimental to morale, but it was. The SCP pupils had been allowed to wear sports shoes to school from the very beginning, as a special concession, but this was allegedly because

there were no lockers available. This, along with the privilege of wearing a special SCP tee shirt had been adopted by the players as a significant status symbol ever since: a token that resembled the award of school colours. Mr Tan stated that they still enjoyed the privilege of wearing their tee shirts and the issue about wearing sports shoes was resolved as they had been provided with lockers. This was contrary to the opinions of the players and the basketball coach, who stated that they were encouraged not to wear their shirts and inferred that not being able to wear their shoes created a loss of identity. A number of SCP players downplayed the value of their so-called privileges, saying essentially that there was no difference, when compared to the regular pupils and a female basketball player (interviewee:20) explained it thus:

..at the beginning, we thought we would have many privileges, so we would think, yes, we are special. Afterwards, we realised that actually we have the same rules. At first they said we could wear our sports shoes, our sports tee shirt. After we realised that our teachers don't allow us to do it at all. So I don't think there is anything special. Its just that maybe we have more pressure.

This pupil's perception of being a SCP member was now one of stress than of privilege and the interview responses indicated that "studies, homework and exams" were the source of the greatest pressure. This perception of pressure over privilege, however, is not generalisable, but must be considered as a big concern, if this is an outcome of being a SCP player, as it devalues the importance of 'self'.

9.4.5 Sports Results

The basketball coach believed that, in 1994, better championship results had been achieved in basketball, winning all four of the zone titles for the second year running and being placed in all four levels in the national championships. Even in the first year of the programme, the HOD mentioned that it was getting harder to win the Zone Championships, as more schools were using foreign coaches to train their teams. He felt that CHS had the standard of players that were capable of winning, but in the tournaments, there was often a problem with referees. He cited an example when, with four minutes left and 22 points in the lead, the match was lost because of the referees

adding time on. He complained that this sort of incident happened frequently in both age groups and "when matches are lasting two and a half hours and one half is only 20 minutes, you can do very little. We complain but it doesn't do any good." Although this can be interpreted as a case of poor sportsmanship, it indicates some level of malaise and discontent within the administration of schools basketball, something that appears to reflect a bigger problem inside the NSA, according to the HOD. It is often the case, when winning becomes too important, that maladaptive achievement striving occurs (Biddle, 1993) and, in this situation, it appears that partisanship took place, as the administrators themselves had a vested interest in the final results. This scenario could also reflect a consequence of the coaching policy in schools, where some coaches train several schools that are in competition with each other and such consequences may be indicative of the bigotry of the external coaching culture. Smith (1997:19) warned of these dangers when other organisations entered the world of school sport.

All three teacher/coaches were pleased with the programme's success over the four year period of the study and the basketball coach awarded it "75 marks out of 100". Although the table tennis coach thought that the concept had been successful in maintaining a balance between sports and studies, the current SCP form teacher thought that there were a number of sports players for whom studies had become a burden and who had problems balancing both. By 1997, the SCP had produced better results in each sport and helped the majority of players, with only a few exceptions. The three teacher-coaches were rightly proud of the twelve zone titles achieved in 1997, for the very first time in the school's history and table tennis also had excellent results in the national championships, which were the best ever for both boys and girls. The table tennis coach thought that this was the result of one or two particularly outstanding players in each year and he believed that this success would help to attract good players to the school in the future. In a somewhat confused way the table tennis coach thought that the success of the programme might create a "School for Physical Education", not recognising the inherent paradox between the role of physical education and the purpose of sport. However, for many educators in Singapore these terms are interchangeable.

9.4.6 SCP Weaknesses

The SCP, in spite of its obvious successes, had some weaknesses in the eyes of the coaches. To begin with, not one of the coaches was happy about the “kicking out” of SCP players that were not maintaining the necessary standard, particularly when it was as late as the beginning of their final year. The coaches saw this as unfair, as it led to a sense of despair and sadness, as well as loss of self-esteem amongst the pupils affected. But it was necessary for the school to do this, according to the table tennis and basketball coaches, who were in agreement that academic results for all pupils were important for the school’s ranking. The basketball coach suggested that the basketball players, who remained in the SCP in Secondary 4, were not his best players, but “they can study”, accurately describes the educational culture in Singapore. He also acknowledged that there might still be some jealousy from the NSC pupils towards the SCP pupils over perceived inequity, but, in his opinion, the basis for this was unfounded.

Even at the very beginning of the SCP, the boys’ basketball coach thought that it was a disadvantage to only learn one discipline and the Principal agreed that the programme structure was rather limiting for the players. Mr Tan thought it would benefit the players to do other activities during their four years in the school, besides their chosen sports, but, without the official status of an ‘elective’ programme, he did not have the resources to do this. After four years of playing basketball and nothing else, the basketball coach thought that the players had been deprived of a physical education. This imbalance was not good for their overall development and he suggested that, during one term, it should be compulsory for the players to participate in a different sport. The suggestion, to give the SCP players a taste of physical education or other sports, was first mooted by the basketball coach in 1994, but by 1997, still had not materialised! As was mentioned previously, most of the players, having perceived that the physical education programme was inferior to their sports’ programme, deduced that there was no benefit to be gained from an infusion of physical education into the SCP structure and were more than content with the status quo.

9.4.6.1 Integration

As mentioned in his final interview, the Principal's perception of the holistic nature of the programme's concept was different to the reality observed by the researcher and the opinions of the players. Mr Tan was surprised that the SCP was not considered by the players to be an integrated concept, but both players and coaches regarded themselves as quite separate and discreet in their sports. This distinction created some difficulty, when research procedures were being conducted, as there was poor liaison between the coaches, highlighting a flaw in the programme management or a weakness in the transmission of the SCP mission to the coaches. Although the SCP players represented different teams and trained in mutually exclusive areas, the Principal believed that because they were combined for academic subjects, there was integration. However, as a consequence of their examination preparations, even this integration was eroded by Secondary 4, as the SCP pupils were in different classes for different subjects. The Principal, deflecting any personal criticism, further suggested that a possible reason for this perceived lack of integration could be because there was a lack of leadership quality amongst the players in this particular cohort. He believed that the previous batch had a few strong leaders who were able to co-ordinate better, but this year, because there was no strong leader, he said that there was no organisation or co-operation from the pupils themselves to support the other teams. Although strong leadership may have been absent from this cohort, the Principal appears to be apportioning blame to the students rather than accepting that a weakness in the SCP management existed. There was evidence from the players interviews that less than half of the players¹¹⁷ (43%) felt confident to ask questions during training and less than a quarter (23%) had offered any suggestions during their life in the SCP. This low ratio of confidence indicates that the players might well have been lacking in leadership qualities. However, it may also indicate that players were not sufficiently encouraged to use their initiative, which asks a question of the styles adopted by the programme's coaches, if sports development was to be an outcome of sport specialisation.

¹¹⁷ Boys reported higher levels in both questions and suggestions, indicating more confidence and leadership than the girls.

9.4.6.2 Intake

The Principal stated that a perception of his programme, being that of a scheme designed purely to win more medals, was not true. Mr Tan suggested that results for 1996 showed that the SCP did not necessarily help in your sports achievement, because that year there was a very good overall standard of sports in Singapore schools and success "depended a lot on your intake." In stating that a significant number of longstanding champions had been defeated in their respective sports, he cited this example: "This year in table tennis, Bukit View beat Chung Cheng High, which has been the champion for the past eight years. Bukit View came from nowhere." However, the Principal thought that the SCP had created some public awareness not only in the schools, but also in the wider community where people were beginning to realise that it was possible to give help and encouragement to sport without sacrificing academic standards. Mr Tan, referring to this assistance, said:

I do not know what is the extent but I am sure now that more people are aware of this SCP. There are a lot of discussions on it, so I hope that in years to come, I get to really see some other schools start a similar programme.

In reference to this awareness, the Principal had heard of one school that was considering the implementation of a similar programme, but, as yet, it had not materialised. He also believed that the positive media comments about the SCP were attracting more talented pupils than previously, especially in table tennis. This opinion contrasts somewhat with that of the badminton and basketball coaches, although his comment about their ability may not relate directly to their attitude or enthusiasm, which was becoming something of a concern for the coaches. Without the influence of media publicity, these more capable students would previously have joined rival schools, but now considerable competition existed to enrol the best talent and CHS was benefiting. The Principal thought that, in spite of "one or two" complaints about the excessive demands of the SCP schedule, the players' parents had accepted the SCP very well. Mr Tan informed such complainants, some of whom appeared unaware of the fact that their child was even in the programme, that the majority of sports' pupils were doing well in their studies, implying that it was

not the programme that was at fault, as much as the child. However, on the positive side, the Principal said that there were now more parents enquiring about the SCP programme. Some parents, from far afield, were thinking of taking advantage of the hostel, as they knew that there was a good sports programme at CHS that would help their children balance their studies and their games. This parental interest represents a positive development for sport in the national mindset and indicates that the government's attempts, to encourage sports' participation amongst Singapore citizens, are gaining momentum.

The badminton coach indicated that the cohort of girls, featured in this study, was the weakest he had taught in the last few years, being the first to lose the national championship title in seven years. This meant that, for 1997, he would have to increase the ratio of younger players from 3:7 to 5:5 in the 'B' division. He believed that what the younger players lacked in skill they made up for in 'fighting spirit' and this might be enough, he added, to turn the championship around in the school's favour.

When the male table tennis coach was interviewed for the first time in 1996, he suggested that his players¹¹⁸ were very keen to play the game, to play longer hours and to practice more than previously. However, he was a little surprised that the girls' fitness results were better than those of the badminton and basketball girls. His surprise was linked to the fact that most of the training for the table tennis girls involved skill development procedures and essentially overlooked fitness. He thought, however, that their fitness might well be the result of participating in four lengthy practice sessions a week.

9.4.6.3 Dropouts

On the subject of dropouts, the HOD stated that "they did not drop out so much as we exclude them". The coach chose only the best twelve players from Secondary 1 and 2 to represent the school in basketball. The other SCP pupils, who were not selected for the school teams, could stay in the SCP provided that they were academically good enough,

¹¹⁸ He was referring to the cohort being studied.

until Secondary 3, when they had no choice but to join another class. The girls' badminton coach, however, added that, before they finally dropped out, their attitude was tested to see if they were on the right track and to see if they deserved a second chance.

Reinforcing the Principal's opinion, the girls' table tennis coach thought it was better for the weaker players in the SCP to spend less time on sport, drop out of the programme altogether and join another class. This confirmed the principle that the SCP was only for school team players and not for personal, social or even sporting development. By Secondary 3, those pupils, who were still in the SCP but not in the team, were used to train the beginners or used as officials and the boys' basketball coach justified this practice by stating that:

because we recognise that these students are still team players they do not feel rejected or bitter. The only difference is in the tournament period where instead of competing they are involved in officiating work. For some, the pride that they feel from helping the school basketball team is enough to satisfy them.

Although this practice may have helped to reinforce their utility, it does appear as though these pupils are being exploited, particularly if this is perceived to be an inferior role. The players', as well as the coaches', interviews indicated that self-esteem was injured as a consequence of being dropped from the squad and, understandably, more so for Secondary 4 pupils, the badminton coach believed, when the younger Secondary 3 players were selected in front of them.

9.4.7 Coaching

All three coaches, two of whom were form tutors for the SCP, had similar attitudes and goals for each of the different sports. However, the girls' badminton coach appeared to be more competitive in his approach to the sport, but also the most reflective of all the coaches regarding the training programme. The badminton coach was serious about his role and responsibility and was the only coach who specified his goals which were, to win all 4 titles in the school competition, send more players to the SBA programme and

to get players into the national team. As a measure of his professionalism, he indicated that he had kept training records since 1987, producing different programmes for different levels. He recorded his training plans and revised them every few years and believed that he was the only school coach, who kept a record of his coaching, saying, in reference to the foreign coaches, "even the Chinese don't." He showed his concern for the players by asserting that he tried regularly to vary his focus, to build the girls' interest, because, if they lost interest, they would drop out, unfortunately however, he focused predominantly on his team players. The boys' basketball coach, however, also stated that his training schemes were "written down", although they were recorded in Chinese because his English was not very good, but he did not elaborate or offer to present them for verification.

When describing the external coaches, the badminton coach stated that there was no difference between getting a coach for the girls or the boys, but "a teacher was better than a coach." Sometimes it was difficult for the outside coaches to manage the timing of the programme because they had their own commitments, whereas a teacher/coach was a better alternative as s/he offered the school and the players more commitment and loyalty.

9.4.7.1 External and Foreign Coaches

Only the table tennis and badminton coaches had changed their training/coaching methods over the time-frame of the study, influenced mainly by the practices of the external coaches. The table tennis coach stated that he had learned a lot from them as they were of national standard and particularly professional, whereas the badminton coach absorbed only some of their ideas, as others were inappropriate for the standard and culture of his players. The badminton coach also garnered tactics from coaches in other schools and from performances in national tournaments. He said that other schools were also adopting new tournament strategies and he was forced to make changes to stay in front. One of his key strategies, apart from coaching only the girls, was to focus on the doubles, which he believed was more trainable, as there was more strategy involved in

winning and with his experience, doubles play could be more fully developed. The basketball coach was less impressed with the external coaches and thought that they lacked commitment to do anything more than their job. "The coaches from China also have the problem of being outsiders", stated the badminton coach, "they can coach, they have very good court management, but when it comes to discipline, attendance, they have no answer and find it very difficult". Going further he stated that:

They are from China. They have never trained such a low standard of player before. They find it very difficult to coach our pupils because in China when they are appointed as coach, the standard will be about the same standard as the Singapore national standard... So when they give out the training programme, the players will follow. But for our players, they have to train them up from the very beginning. So the pupils find it very boring and very difficult. So that's why sometimes the training programme doesn't meet the students interest level...The students, they found it difficult to communicate with the Chinese coach, because of the language problem, and also they are not at the same level of understanding.

Owing to massive social differences, the table tennis coach, through his counselling role as a SCP form tutor, also acknowledged the difficulty some of the students had communicating with some of the external coaches and believed that this would affect their enthusiasm for the game. However, his opinion differed somewhat with that of the others, as he thought that the table tennis coaches, in terms of skill, were more professional and able to contribute more than he could, owing to his heavy teaching commitments. Neither of the table tennis coaches, who were local Singaporeans, came from the STTA, however. Advocating similar values to Cahill (1993) and Treadwell (1987) both the badminton and basketball coaches thought that the 'teacher as coach' model, as at Millfield, where the majority of coaches are full-time academic staff, was better for the pupils, because it had the players' welfare at heart. Teacher/coaches also displayed greater loyalty, they stated, citing instances where the full-time coaches worked in several schools that were in competition with each other. This not only led to divided loyalties but when the players needed their advice in tournaments they were sidelined or not available. The basketball coach thought that this external factor might have contributed to the problems he faced with his 'B' division girls. Surveys had been conducted annually by the badminton coach, in his capacity as the SCP form teacher, and

these, he stated, identified problems, in the past, between the pupils and the external coaches, particularly the badminton boys and table tennis girls. The badminton boys had five different coaches in four years and there was a substantial period when they had no coach at all. In 1997, the badminton coach was, once again, considering helping the boys, but was afraid that the standard of the girls would drop and this assistance had still not materialised by the end of the study. The problem with the continuity of the badminton coaches appeared to lay at the door of the SBA, who were entirely responsible for providing these coaches and this was something that the school had no control over. Another problem with the external coaches, that was reported in the interviews, had occurred in the previous year, when the Principal created a controversy by sacking most of the fourth year girls' table tennis team for reportedly disgracing the school over a miscommunication and contretemps with an external coach.

On the topic of external/foreign coaches the badminton coach said that:

The coaches from China do have a high standard of training but are unable to motivate the players in the way that a teacher can, who knows them better and who wants to see them fight to do well for the school. As a coach, I have benefited from them and have absorbed some of their methods but they coach the sport rather than the kids.

The Principal had a different opinion to the basketball coach about the quality, integrity and commitment of the external coaches and their impartiality during matches. Although they were not considered as teaching staff, the Principal did not acknowledge any limitation in their role with his school teams. When this is compared with the Millfield model for gifted children, where the emphasis of the school is also academic attainment, there can be little doubt as to the coaching staff's commitment to the school or to the students. It would be beneficial for the Principal at CHS to consider this for the future, as the academic staff at Millfield School are appointed on the basis of firstly: their academic credentials and secondly: their coaching expertise (Martin, 1994). Millfield also provides a vast pool of talent for national honours in a range of sporting activities, something that the CHS model had set out to achieve. Unfortunately, CHS is at present much too

dependent on the NSAs, whose system of coaching provision is much too ad hoc and, with continuous changes of personnel in some areas, is a serious problem.

9.4.8 SCP Issues

9.4.8.1 Academic Support

One of the tenets of the SCP was the academic support offered to the players. After one year of implementation the girls' badminton coach believed that the academic staff, as a whole, were behind the SCP concept, whereas the boys' basketball coach thought that there had been a level of misunderstanding by some subject teachers, as they continued to set tests during tournament periods. This had inconvenienced the SCP players, reported the basketball coach, and consequently the Principal had issued a statement that tests were not to be set during sports periods, to halt this practice.

Over the past three years the basketball coach felt that the SCP sports results were satisfactory but their academic results were down as a result of the clash between their tournaments and the mid-year examinations. This was a point that he had raised in the previous interview and he indicated that his worst fears were being realised. These tests occurred when the players were under a lot of stress from playing in the tournaments and resulted in a lack of concentration that affected their performance in their school tests. Testing continued in spite of the assurance given to the players by the Principal that "during the tournaments they wouldn't get any tests." The basketball coach expressed his frustration by adding that:

those subject teachers, they just don't care, they just carry on. Right now I am trying to fight for it, but I still can't get an answer. So the students suffer during the tournament period. For example, this year for our 'C' boys: tomorrow we are playing in a final, today we have three tests. After the final we have two more tests.

These tests occurred, in spite of the Principal's agreement to monitor this practice more closely and the abuse of the Principal's ruling is indicative of the predominance and

significance of examinations, not only in the school culture, but also in the mindset of Singapore's teachers. This situation highlights Mr Tan's ineffectiveness in dealing with this problem, but may also be recognition of how important the support of the academic staff is for the success of the programme, plus the fact that the Principal does not wish to offend them or to risk losing their goodwill. Nevertheless, it was the results of these tests in Secondary 3 for example that influenced the Principal to remove the sports periods in Secondary 3 and 4.

The badminton coach thought that the SCP concept was working well, mainly because of support from the Principal and the school management, but both he and the basketball coach agreed that it was suffering a little from a lack of support and co-operation from the academic staff. Both members of staff thought that the academic support had tailed off conspicuously. In spite of drawing the Principal's attention to this in 1994, as it was in contravention of the original guidelines, and being given assurances that it would be monitored, the basketball coach was still very unhappy that the academic staff were continuing to conduct tests during the tournament period. The basketball coach gave this example:

my basketball players, today playing semi-final, tomorrow playing final, they still have three tests. Then at night-time they still have to study, what do you expect them to achieve. So the students, the players, sometimes they are not balanced, and they can't cope with both, they have to struggle. That's a weak point..... They can't go all out, when they play their games.

At a time when players were under a lot of pressure in both sport and studies, academic support appeared to have decreased since the beginning of the programme. This contributed in some way to the pupils' difficulties and perhaps indicated that the original motives were not in synchrony with practice. The table tennis coach thought that more remedial help was needed, especially in Secondary 3 and 4, to counteract the added pressure placed on the players by the school. This appeared to be a more favourable option than the one exercised by the Principal that totally removed their sport periods. In Singapore, there appears to be a problem accepting that pupils can do both sport and studies, in spite of Almond and McGeorge's (1998:6) conclusions that they comfortably blend together. Thus, not only will an alternative mindset be necessary to overcome this

lack of flexibility, in both the coaches as well as the players, but also additional consideration can be applied in the timing and volume of tests.

The Principal, however, indicated initially that he had no evidence that the academic teachers were losing their support for the SCP initiative in any way, as reported in the players' and coaches' interviews. In fact, he thought that the Secondary 4 pupils themselves were losing their motivation for the SCP programme instead, although he was not absolutely certain about this. Once again, Mr Tan appeared to be supporting his academic teachers, as the basketball coach had brought the matter of examination test schedules to his attention on a number of occasions and the players' interview responses indicated that their motivation for the SCP was not compromised. However, the Principal conceded that maybe it was time to revitalise the enthusiasm of the academic staff, as he also felt that, after four years, the excitement had deteriorated. The declining impact of an innovation over time is a well-documented phase in the implementation process and is a factor that needs proactive rather than reactive measures. Mr Tan again emphasised that support from the Ministry to upgrade the SCP into an 'elective' programme was essential and would help enormously to create status for sport in schools. The lack of official recognition was another reason why he believed that the staff might think that they were carrying an additional and unnecessary burden. This recalcitrance displayed by the academic teachers is an obvious consequence of them working to support an initiative in which they have no direct empathy or involvement and can see no personal benefit or any tangible recognition coming from the Ministry.

After further reflection of the annual research observations and findings, the Principal accepted that some classroom teachers might not be supporting the programme as much as previously by saying: "it could be true, that after this year, the stamina has just gone down. So maybe it's a good time; we have to encourage the teachers." [This reply was evidence that the longitudinal research design was having some influence on the Principal's reflections and actions in modifying his approach, as well as his policy.] This introspection was further highlighted when an enrichment programme was offered to the NSC pupils in 1996, as a form of atonement for their perceived neglect caused by the

introduction of the SCP. This development positively supported the value of the formative research analysis because the enrichment programme emerged as a result of the comments made by the students in the Secondary 2 NSC Questionnaire, in association with the Principal's visit to several sport schools in Sydney that had created a favourable impression. Philosophically speaking, the enrichment programme for NSC pupils is not an acceptable replacement for a well-structured physical education curriculum, as it is extra-curricular and therefore can hardly be considered to be equalitarian. However, the enrichment programme rectifies, to some extent, the curriculum provision in physical education for the NSC pupils, which was deficient in facilities and resources, as opportunities were now made available. As a result of the implementation of the SCP, access to equitable tuition was further denied the NSC pupils, owing to the fact that the physical education staff/coaches were overly committed in the administration of the programme and not available for the curriculum needs in physical education.

9.4.8.2 Role of the SCP Co-ordinator

The Principal admitted that he had spent an inordinate amount of time as the major programme co-ordinator over the last few years, obviously to ensure the successful implementation of the SCP. Although there was a senior member of staff as an assistant co-ordinator, he agreed that there was a need for someone else to take over as the major co-ordinator for the SCP, to oversee its training, organisation and administration and to be able to evaluate the players. Someone, who was not only capable of managing the administration of the SCP, but could look into the welfare of the students and the development of the concept, would be advantageous, Mr Tan thought. The previous assistant was a half-hearted administrator, as far as the coaches were concerned, and this was insufficient in the eyes of the basketball coach, who believed that if this was his sole function, the coaches could manage quite well without one. If a new co-ordinator was appointed, the coaches would prefer a more committed member of staff to an external coach, as this person would have a vested interest in Cathedral High. Consequently, the Principal replaced the assistant co-ordinator with a new appointee to help achieve his

programme goals and this person would oversee the programme from pupil welfare and sport development perspectives rather than from a purely administrative point of view.

Although the individual, who was appointed when the study was almost complete, had extensive coaching experience¹¹⁹, he was in the twilight of his career and as such his entrenched perspective may result in perpetuating the more traditional values of sport that predominate in the school. As the present HOD was retiring and the existing coaching staff were in mid-career, the programme might have benefited more from a different perspective that would revitalise existing practices and ideas. However, it is significant that this appointment arose as an outcome of this study, through the regular dialogue sessions, the interim reports and the Principal's observations, emphasising the importance of formative evaluations in a study of this kind.

All three teacher-coaches worked independently of each other but they liked the idea of an overall co-ordinator to unify and develop a training and coaching policy for the SCP, providing this meant more than just administration. At present they were not really sure what the other sports coaches were doing and to emphasise this point the table tennis coach stated that:

it will be good if we have somebody to co-ordinate overall, take charge of all the areas, and develop more unity in the concept. So far all of us are working independently, not knowing what the other is doing, when the other tournaments are or how important measures are going to affect us.

In the opinion of the coaches a co-ordinator would also bring relief from the time-consuming duties of pupil welfare, discipline and parent liaison. The basketball coach was a little more sceptical about overall unity, citing the enormous difficulty there would be in scheduling the three sports concurrently and wished to retain a separate and independent stance. He said that "I support this idea (*of a co-ordinating policy*), but the time frame is the problem, we can't fix them all in the same time and we got different training hours, we got different training days, so its very difficult."

¹¹⁹ He had previously been a national coach for basketball

The SCP form tutor mentioned that, in his opinion, the current Secondary 3 and 4 pupils were not as motivated or enthusiastic as their predecessors and put part of the reason for this down to a failure in the welfare and privilege system. This lack of enthusiasm occurred, he thought, in spite of the fact that they appeared to have everything on a plate, the mystique of the SCP was waning. Recent intakes of sports pupils were lacking the calibre of previous generations, he believed, whose attendance, discipline and willingness to learn and train was better. It appeared that this was especially true for the badminton boys, who previously used to train on their own, but now it was even difficult to keep them in the team. The badminton coach believed that a teacher-in-charge, rather than an external coach, might have prevented this by creating a better sense of loyalty.

9.4.8.3 Gender

As in Singapore generally, the Principal was not aware of any difficulty concerning gender differences within the programme structure. He said that the SCP was not designed to favour the boys over the girls and firmly believed that it did not and equally, he was uncertain whether the Secondary 4 girls were any different this year from previous batches, because "every year the students are different", he said. However, by suggesting that the quality of leadership amongst the girls was "weaker" than the previous year, he implied that it was their fault. "Some years you may have some very outstanding sports students, some years you just don't have." He believed that this cohort of girls required more help and more understanding from the school, but basically it wasn't because of their gender that this was necessary. This may again indicate how distant the Principal was, in relation to the true feelings of the players, and also how difficult it would be for a person of his stature to get an honest impression of their opinions.

In 1994, the HOD suggested that the capability of the boys and girls in the SCP appeared to be about equal, although it was difficult to compare. "What sets them apart", he said, "was what they required from training. While the boys all tended to be strong, the girls were generally lacking and therefore required extra training sessions on strength before

they could move on to training for physical fitness and for skill.” He believed that this deficiency was related to a lack of primary school involvement in physical activity, as well as a lack of previous experience in the sport itself. Thus, during the afternoon sessions for girls, there was more emphasis placed upon achieving higher fitness levels to compensate for this.

All of the male coaches stated, in their interviews, that the SCP had no gender bias and gave equal emphasis and support to girls and boys. However, the basketball coach was aware of some discipline problems amongst the girls and also a change in their attitude, which had surfaced in school over a long period. Reinforcing the teacher-as-coach structure, the basketball coach believed that “a home based member of staff would help the girls with their emotional stability and their attitude” but he added that these characteristics did not affect their training too much. This gender stereotyping reflects a wider social perception and indicates that, in the minds of the coaches, the problem lay with the girls, yet nothing was done to alter the coaching styles for girls, which from the opinions expressed in their interviews, were obviously not appropriate. When Rowley (1993:143) stated that boys and girls respond differently to failure and a single strategy is inadequate to deal with this, the question of treatment becomes an issue. Is the situation broader than just failure and does it concern other aspects of human behaviour? If this is the case, then the reported strategy of treating the boys and girls equally has to be questioned. To be gender equal these measures may have to be different to those that were practised.

In badminton, the coach thought that the girls had reached a consistently high standard in terms of performance, but there was still some way for the boys to go. As evidence of his paternalistic opinions he repeated that, owing to a difficulty in recruiting another coach, he might have to help coach the boys but, if he did this, he patronisingly felt that the girls standard would drop and he was, after all, comfortable coaching the girls. As this problem had been going on for some time, it indicates some reluctance on the part of the coach to take on a wider responsibility, which might threaten his proven success and therefore his

reputation. This maladaptive achievement behaviour is associated with a 'winning-at-all-costs' attitude that was defined in the literature review (Porter, 1996).

9.4.8.4 Morale

The girls' badminton coach, as SCP form tutor, identified a difference between a SCP and a regular class in that there was not the same level of identification in a regular class. He suggested that the spirit in the SCP was better, because they were all united in the goal of gaining glory for the school, they were more enthusiastic and easier to communicate with. It was also easier to engage them, compared to other classes, he added, whose spirit only came out in inter-class competitions, like singing. This opinion relates closely to the responses from the players' interviews, when four out of five pupils (80%) gave morale within the programme a positive definition. Morale appeared to be least significant for the table tennis group (64%) where good morale existed mainly for the boys. Overall programme membership appeared, from the players' responses at least, to have had a positive impact on their perceptions.

The table tennis coach, perhaps in denial, summed up a common feeling that the players really enjoyed being together, whether in games, activities or class. In spite of the fact that the table tennis players recorded the lowest levels of morale (see Appendix 7b), most likely a reflection of an individual sport, the successful programme results were definitely boosting morale and team spirit, he stated. This helped to offset the pressure of coping with studies and sports and according to the Principal this 'spirit' was instrumental in their academic success.

Positive self-esteem, a constituent of group morale, was evident, according to the Principal, as the SCP players had been doing very well in their studies throughout the last four years, contradicting the fact that he had modified the structure because of the poor test results in Secondary 3. He was obviously unaware of the impact his modifications were having on SCP morale. The Principal's interpretation seems a little superficial and anecdotal but represents a cultural reference to the value of academic studies in the

school. As a reflection of the value of collaboration in the study, he thought that it would be more accurate and equitable to compare self-esteem only in the special stream of both populations (SCP and NSC), as these pupils were more representative. Self-esteem in Singapore students, he argued, was linked more closely to academic achievement than sports achievement.

9.4.8.5 Community Links

The Principal admitted that he had to rely on the good will of the Singapore Badminton Association to supply the coaches for his programme. The co-ordination of a more cohesive system of coaches was beyond his control and, supporting the opinion of the badminton coach, he stated that there was nothing he could do about the frequent changes that had been initiated by them. This is an area that has to change, if the SCP is to improve and the NSA's are to achieve the potential of their coaching network. However, displaying some inconsistency, the Principal no longer employed any more coaches from the STTA because they were unable to maintain a regular coach, so now he recruited his own local coaches for table tennis. Mr Tan did not consider the coaches' outside commitments to other schools to be a problem, in fact, he thought that most school coaches were involved in this type of situation. He believed that most of them were quite neutral, when the parties concerned played in a match, adding that if the external coach could manage the pupils well, he would just leave everything to the external coach. These alternative commitments may lead to partisanship and obviously create potential difficulties with divided loyalties. A more cohesive system of school-based coaches, as they have at Millfield, would eradicate this problem in the system.

9.4.8.6 Sport Specialisation

The badminton coach, having achieved a great deal of success with girls over a twelve-year period seemed to be the one with the greatest concern about losing. Consequently, he spent much of his time with the top players, very much to the detriment of the remainder. His record of winning championships, perhaps, created a source of anxiety

that resulted in his tendency to scold and criticise (players' interviews). As the non-team players were much more critical about him, this might explain the feeling of rejection that these less successful players had experienced. Although the badminton coach was also very concerned with promoting the image of his sport as being the best in the school, the basketball coach did not appear to be so preoccupied with winning, but was more pragmatic and realistic about his players abilities. Consequently, the basketball coach did not alter his ideas or strategies very much, but the others genuinely appeared to be looking for improvements in their coaching and training strategies. Although both styles of coaching have merits, the SCP model needs to definitively embrace the notion of sport development, rather than merely sport specialisation, to ensure that the programme not only survives, but also improves. It is also worthy of note that, at the time of the players' and coaches' interviews, all of the girls teams in the SCP were being coached by men, the only female coach was external, spoke only Chinese, and was coaching the boys. One of the top badminton boys (interviewee: 54) described her as "quite biased" because "if she likes someone, she will keep training that person...regardless of whether the person is good or not and she doesn't give the others a chance. Well, so far she is the worst coach we have met." This response was one of several unflattering comments, however, since their previous male coach had been world champion, their expectations for subsequent coaches might well have been unreasonable.

9.4.9 Summary

In summary, there was a strong recognition about the value of the SCP and its concomitant success from all the coaches interviewed, as well as the Principal. However, the coaches were not blind to the fact that there were weaknesses in the concept that needed immediate attention. The recent structural changes induced several doubts in the coaches' minds about the SCP's potential for the future, as they saw these changes weakening the design and quality of the programme. Whereas the commitment and the enthusiasm of subsequent cohorts was being maligned by the coaches, the SCP players were losing their privileges and their identity even, so it was not surprising that this malaise could creep in. The fact that the badminton boys were almost totally neglected in

their first year of the programme can hardly be recommended as an appropriate feature of the system. Nevertheless, from the successes achieved, both in the classroom and on the court, the Principal was quite certain about the future of the SCP.

9.5 Moral Issues

9.5.1 Elitism

The pursuit of 'elitism' represents a dilemma for educators, because it brings into question the important democratic notion of equity, as the process culminates in one form or another with exclusion. Schools, nevertheless, are entrusted with the mission of developing potential, not mediocrity, and therefore, if self-actualisation is an educational goal then such arguments for equity have to be dismissed. Programmes promoting the so called higher levels of culture, such as art, language and music, somehow climb above this issue of democracy, but sport, with its roots in the popular culture, frequently falls victim to prejudicial examination. If sport is to become the future icon of nation building then models, such as the SCP, can be justified and deserve to be recognised.

9.5.2 Exploitation

More personal moral issues were investigated to establish whether any exploitation, cruelty or abuse was created as a result of implementing the SCP. These terms are heavily emotive and must be exercised with caution so that an incorrect or overly negative impression of the SCP is not created by their use. A number of authors (see Fraleigh, 1991; Lee, 1993; Passer, 1986; Whitehead, 1993) were concerned about the exploitation of young people by adults, who had ulterior motives in their efforts to win trophies. Although the term 'exploitation' is relative to specific conditions, the culture of Singapore and CHS are important factors to be borne in mind in any interpretation. There was no evidence found in the study that the pupils were either being overly exploited, to use Campbell's (1992) description, or that their goal was purely winning, although the Principal had a vested interest in the success of the programme, as he had offered to resign if it failed. Therefore, mis-management or

manipulation might be milder and more appropriate descriptors for any form of abuse that became apparent. However, there was some level of discrepancy in the development of the programme as the terms, benefits and privileges of joining the SCP at the beginning were quite different by the end of the study. Perceived privileges, such as extra academic support and the opportunity of wearing special clothing to school, were prized concessions in the esteem of a school sports player. When these privileges were withdrawn, when they no longer had sports periods in their timetable and when they were taking academic tests during their tournaments, the SCP players were made to feel more disadvantaged than the NSC pupils. As a consequence some felt let down, having given so much to the school over four years.

The Principal had much to gain in kudos and publicity from a successful sports programme; he was, after all, the pioneer of sports specialisation within Singapore's educational curriculum. His painstaking efforts to improve the programme's structure and his continuous monitoring of the players' academic progress indicated that he had the players' best interests at heart in difficult circumstances, given that he had no official backing. By ensuring, at the end of the day, that the SCP pupils were academically successful, he delivered not only one of his promises to his 'clients' but also one of his programme goals. One of the main beneficiaries of this innovation was undoubtedly the school, as it secured a media limelight and this publicity helped CHS to sparkle in the public eye. However, the innovation also benefited Mr Tan, as he was recognised as an outstanding principal and promoted to the status of a cluster¹²⁰ superintendent.

The coaches themselves did not appear to engage directly in any level of personal mismanagement concerning the players, although there were obvious areas of manipulation within the SCP structure. Considerable pressure was exerted by the administration on the SCP pupils, as members of the programme, both to maintain their academic status and to train excessively for the school to an extent that, on several occasions, the players themselves were observed to be taking responsibility for their own practice. The players'

¹²⁰ In order that all schools benefit from good leadership, schools were combined into clusters and an outstanding Principal was placed in charge: Mr Tan was identified as one of these outstanding leaders.

commitment to the programme resulted in a loss of freedom, as huge chunks of their time were demanded, particularly during the holidays. This created a feeling of sacrifice for some of the SCP players, but these emotions were not altogether excessive and neither were they overly common, as it is normal practice for pupils in Singapore to return to schools during their vacation periods. The basketball players, unlike the other sports, were also victims of choice, as SCP rules denied them access to external competitive sport, in order that they could concentrate more on their studies.

9.5.3 Manipulation

The investigation of manipulation has to revolve around the effects of the programme on the SCP players. To do this, it is necessary to evaluate their perceptions of the SCP and to examine what they gained from the programme in return for their efforts. There can be no doubt about the success achieved by this cohort, as they produced the best overall sports results in the past ten years and academically the SCP players out-performed their NSC counterparts. Therefore, for those players who were most heavily committed throughout the programme, there were adequate rewards to compensate for their efforts, bearing in mind the fact that 'studies' were more important for 76% of them (pupil interviews, 1996/7). However, as most of the privileges had been withdrawn by Secondary 4, the SCP pupils were essentially no different to other pupils in CHS other than the fact that, ironically, they had no physical education or sport in their daily timetable. This example, in itself, represents a case of 'false pretences' as the terms on which they joined the SCP had been compromised. The lure of playing sport within the curriculum, that had seduced them into joining the programme in the first place, had been withdrawn, emasculating not only their status but also that of the programme.

9.5.4 Expectations of the SCP

An expectation of the SCP, particularly as the Principal had gone to great lengths to introduce and support the programme, was that sports results would improve and this

resulted in a need to win. This produced a winning mentality within the school that influenced much of the coaching behaviour and three distinct groups were affected:

1. the drop-outs;
2. those who were retained in the programme although they were not members of the school team; and
3. those who were still in the school team but no longer in the programme.

1. Many drop-outs were lulled into the programme naively, because it seemed like a good idea at the time and they were enthusiastic about their new school, rather than because they had a genuine interest in competitive sport. Consequently, they were subjected to considerable pressure, as they tried to adapt to the rigorous demands placed upon them through juggling their studies with their sport. However, much of the pressure felt by the pupils at CHS was systemic and was experienced by everyone and was not just a direct product of being in the programme. Additionally, many pupils admitted that the anxiety experienced was self-inflicted rather than imposed by the coach or Principal, as they wanted to do their best for the school. However, interviews indicated that any discomfort that drop-outs felt was short lived and some were relieved to be out of the programme, as they acknowledged that they did not fit into a competitive sporting environment and did not benefit substantially from the SCP experience.

2. By Secondary 4 there were still seven pupils in the SCP who were not team players, but were in the programme, presumably because of their test results. Six of these pupils were in the 'special'¹²¹ stream and were retained essentially to beef up the academic profile and this represented another example of injustice, as some SCP pupils could not understand their own relevance to the programme. Although these pupils were not required to attend training, it was perhaps administratively easier to keep them in the programme with their established friends, than move them out to join another class.

3. Nevertheless, it is difficult to understand the rationale concerning the status of the three team players in Secondary 4, who were no longer in the SCP but represented the school, as

¹²¹ Special stream students are academically better than express stream students.

the SCP contained 15 other 'express' pupils of similar academic attainment. This situation did not actually amount to a demotion for the players concerned, as they were still largely in the company of other ex-SCP pupils, however, it is an example of poor personnel management and is something that should be avoided in the future with the new one-class structure.

9.5.5 SCP Pupils' Perceptions

The players interview comments, especially the boys, indicated that there were many positive indicators negating any feeling of injustice, manipulation or exploitation (refer to Appendix 7b for a complete review). Almost all the SCP pupils (92%) were happy to be at CHS and over three-quarters (77%) to have joined the programme, with only one in ten (11%) being less than happy. Boys (87%) registered a higher ratio of happiness than the girls (63%) especially the basketball boys, who were 100% behind their decision to join. If they were starting all over again, nine out of ten boys (90%) would definitely join the SCP compared to less than half the girls (44%). Although only 55% (n=22) would recommend the SCP for other schools, boys (88%) perceptions were much more positive than those of the girls (36%). The additional levels of sport played out of school by the SCP players also indicated that there did not appear to be any degree of disaffection, as sport was the most dominant leisure activity for SCP pupils.

As a strong endorsement of the SCP, four out of five (79%) responses were positive and the negative orientation (21%) came largely from those that had dropped out, had not represented the school or had experienced a raw deal from the coach. In defence of the SCP, a few of the negative opinions indicated that if the pupils joined the SCP again, they would select a different sport next time. This is significant and indicates, not that the programme itself was faulty, but that they had selected the wrong option, maybe due to the coaching problems they had experienced or the inadequacy of the selection process.

However, it is not convincing that only 45% positively felt any prestige from being involved in the SCP. The badminton group (60%), boys in particular (73%), perceived

more prestige than any other group, with the lowest level of prestige perceived by the basketball group (33%) and the table tennis boys (29%). It is ironic that the prestige felt by the badminton boys was unaffected by the fact that they were without a coach for long periods during their life in the SCP. Three out of five pupils (60%) thought that the prestige of being a SCP member was consistent with previous years or, in some cases, even better. It is therefore disappointing that more than one in five of the players (23%: n=14) reported that there was no prestige whatsoever, being in the SCP. However, most of these pupils were basketball girls (30%) and were the pupils that were displaying maladaptive behaviour during the various tests that were conducted as part of the study. The players' poor perception of prestige was most probably because of their diminished status within the programme in their third and fourth year, as well as through their loss of privileges.

The players' perceptions of personal success in the SCP require careful reflection. Given the conservative nature, immaturity and modesty of the pupils, the third-ranked response (refer to Table 9.1) could be taken more positively and combined with the response ranked 2nd, amounting to almost half the total group (49%) experiencing success.

Table 9.1: SCP Players' Perceptions of Success (n=62)

Rank	Classification	Total (%)	Girls (%)	Boys (%)
1	Not successful	32	34	30
2	Successful	26	13	40
3	Sort of / quite successful	23	31	13
4	Not really	10	9	10
5	In sports but not studies	5	6	3
6	In the sense that I have made friends and enjoyed sport	3	3	3
7	I'm not sure	2	3	0

Although these responses include some that had dropped out, this combination would make boys' (53%) perception of success higher than girls (44%)¹²². This is quite

¹²² Two out of five boys (40%) were positive about their success compared to only one in eight girls (13%).

surprising, given the statement by the badminton coach that the girls were easier to coach and the fact that the girls' national championship results were better than the boys. This most probably indicates that girls were not given equitable praise for their contributions nor adequate confirmation of their capability, or maybe girls at CHS set higher standards for themselves than boys did.

However, a similar proportion of boys and girls, 30% and 34% respectively, felt that they had been unsuccessful and analysis indicated that the negative responses came mainly from those who were no longer in the team (74%) compared to only 17% from current team players. This further indicates that making the team is an important goal and status symbol for the pupils. Even although exploitation would be difficult to recognise, there is little evidence of it in the players perceptions, other than those, perhaps, who had been left out or dropped. This might have been expected, because the hegemony of the school culture creates an inferior status for the pupils, who are subjugated to the power of authority.

9.5.6 Summary

Despite the SCP players' compliant characteristics, their intrinsic and task orientations are positive indicators that the pupils' values were appropriate for young people involved in competitive sport. When these factors are compared with their academic and sporting success then it can be safely stated that the programme had no detrimental effect on the majority of perceptions and any case of abuse would be hard to prove.

For the coaches, a question of morality should have arisen when Secondary 1 players were selected before Secondary 2 (a similar practice was found in Secondary 3 and 4) in order to provide a level of exposure and experience for the following year's competitions. In a meritocratic educational system where the best are encouraged to flourish this can be tolerated, but for the older pupil, who loses out to a younger person for the greater good, it is difficult to accept. This highlights an inadequacy of the Singapore schools sports system, where there is only one team representing every two years of schooling.

An element of concern arose from the area of staff deployment, when the best teachers were allocated to the programme for academic subjects. This created some rancour with the NSC pupils and was compounded when the physical education teachers were not committed to their lessons, because they were tied up with SCP demands. Philosophical shortcomings, related to sport within the curriculum, were also observed when the best equipment and facilities were not available to the NSC pupils and the physical education content was being taught on more or less an ad hoc basis. These unprofessional practices do not support principles of equity and could have been better controlled, to allay suspicions of inferiority amongst the wider school community.

Finally, the Principal, more than the coaches, gained prestige and status from the achievements of the programme because, in Singapore, it is the results (outcomes) that count over the process and this gave, not only the school, but also the Principal marketability or 'value-added'.

Chapter 10

Conclusion

From an analysis of the projected and unanticipated outcomes that have emerged from this study, the status, progress and worth of the Sports Class Programme will be assessed. This analysis, considered against the direct research questions, will, axiomatically, present an array of critical comments from which future recommendations can be drawn. The major focus of the evaluation was to investigate how and where the programme was successful and to identify the benefits for the school and the participants. Evidence, collected from both SCP and NSC pupils was addressed through four major research themes, which became filters that evolved inductively from the methodological model, namely:

1. The Clients.
2. The School.
3. The Discipline (Physical Education and Sport).
4. The Providers.

The Clients

The characteristics and attitudes of SCP and NSC pupils clearly showed differences and changes during this period of adolescence. The CATPA pre-post test identified a negative change in the NSC results and no significant difference in the SCP results, indicating that the programme had been successful in preserving the players' positive attitudes towards physical activity. Although self-esteem has been shown to be lacking in Singaporean teenagers (Gasmier, 1992) and associated directly with academic success (Tan, 1997), involvement in sport had no significant effect on self-esteem, something that contrasts with the review of literature. Data concerning task and ego orientations confirmed that the SCP pupils possessed appropriate characteristics for sporting development, which, with additional high levels of intrinsic motivation, suggest that SCP members have the potential to persevere with their chosen sports at a specialisation level. Obviously, this is important if

the groundwork that has been painstakingly laid in the secondary programme is not to be discarded when the players graduate to Junior Colleges, where, unfortunately, there is no follow-on sports programme currently available. As most sporting activities revolve around educational settings in Singapore, there appears to be a void in sports development for this critically important Junior College age group. The intrinsic and task motivation attributes of the SCP players are significant qualities that are nurtured and engendered through the family spirit and ambience of Cathedral High School. This ambience enabled the SCP to foster strong peer allegiances that supported the players' welfare throughout the programme, particularly during the stressful examination and tournament periods. These characteristics represent positive features of the players that are important markers for future participation and, thus, represent a strong basis for recommending the programme at CHS.

Although the SCP was successful for both genders, variance existed, which implied that the programme favoured the boys, perhaps, in itself, a reflection of the wider social picture. The gender issues, mainly concerning coaching, were identified as a major concern that has to be addressed in the future development of the SCP. Paradoxically, the girls outperformed the boys in terms of championship success; how well they would have done in a more equitable environment, can only be surmised? Nevertheless, by the end of the programme, the majority of team players in this cohort, boys as well as girls, were firmly supportive of their SCP experience.

Irrespective of gender, a most apparent concern was that intra-group equity did not exist. The SCP must embrace all members equally, team players or otherwise, as the self-actualisation of each individual is important. This could be achieved through a squad system, accompanied by a reconceptualisation of the model, as more of a sport development programme, rather than merely sport specialisation, where the focus is on a 'cohort-elite' rather than an 'individual elite'. Equally, the programme could adopt an academic role, such as GCSE Physical Education, which would allow the non-team players to realise that their contributions were not totally in vain and would help to nurture and improve their self-esteem. This academic accreditation would assist the

Principal's plight for legitimisation, as it would position sport on a similar level to the other 'elective' programmes. As the Ministry of Education has been reviewing the external examination policy, it would be feasible to design a course in sport or physical education, specifically for examination in Singapore.

The level of parental support, reported by the players, was a little disappointing, even taking into consideration the implicit increase of peer influence in the lives of these adolescents: once again, girls appeared to have been more disadvantaged. As sport, or indeed physical education, is still not yet accepted by parents, as central to goals of education in Singapore, this paradigm shift will take some considerable time. The SCP requires better promotion, as public relations appeared to be indifferent, particularly in terms of keeping the parents informed about their children's progress. Regular liaison would keep the parents updated and would allay any concerns they might have about their children. Parental support and involvement is crucial for the programme's success and the new co-ordinator will have to improve the level and style of communication in the future.

The School

The final examination results identified that the SCP had been successful in achieving its main mission of enabling the players to achieve equitable standards in their studies, compared to NSC pupils. In fact the results showed that the SCP players outperformed the NSC pupils in the 'O' level examinations, lending support to the claim that sports and studies go hand-in-hand.

As a consequence of the SCP, the CHS sports results were better, when compared to results achieved prior to the innovation. Although this difference may be considered marginal, the study occurred at a time when the National Sports Associations were simultaneously developing sport in many other institutions, making the competition from rival schools considerably stronger. Nevertheless, an emerging trend can be identified, as in the final year of the study, CHS won every zone championship, in age groups and

gender, and attained the best results ever in national championships. In school terms, this represents unparalleled success, however, these results are not emphatic enough, when considered from a national perspective, to recommend the initiative as a Programme for Sports Excellence. This was, in part, a consequence of the constraints faced by the Principal, as a result of the failure of the Ministry of Education to endorse the programme and also a consequence of the limitation imposed by the mediocre calibre of the school intake. Special provisions by the school and certain allowances from the Ministry are necessary, if this aspect is to be improved.

The programme's training regimen positively influenced the fitness levels of SCP boys and girls, when compared to the NSC pupils. Although this might have been expected, this represents another major outcome of the programme design. As there is a national obsession with fitness, this difference is significant as:

- this improvement in fitness ties in positively with national goals;
- SCP fitness differentials were maintained throughout the study;
- participation in sport can be a more enjoyable strategy for achieving fitness than fitness training per se.

As both badminton and basketball coaches were doubtful about the future success of the SCP, due to the unbalanced programme structure, it was suggested that the reduction to one class would not support or develop enough team players in basketball and badminton respectively. The quality and enthusiasm of the players also appeared to be dropping and all three coaches believed that the quantity of academic support, which had been previously provided, was vital. In spite of the fact that CHS had the best school sports results ever, and the fact that the players performed well academically, it is unfortunate that the Principal found it necessary to make 'essential' structural changes in favour of studies. Without the official designation of an 'elective' programme, the Principal lacked the resources and autonomy necessary to preserve the original structure. Nevertheless, the SCP retained its status, as the signature programme in the school, but for the SCP to

be viable as a sports model, it must have a more sympathetic structure that is in keeping with its mission and not one that is designed mainly to protect academic attainment. As well as re-instating the notion of uniforms as a status symbol, sports periods ought to be visible throughout the programme design, to preserve the programme's identity, as well as its dignity, otherwise the allure of sports specialisation will fail to attract aspiring young talent in the future.

Media interest has helped to publicise the SCP, but, from a recruitment perspective, much more could be done through the synergy of the school and the NSA's, to co-ordinate a strategy that will attract players and coaches of a more appropriate calibre. A more professional induction should be designed where primary schools are provided with details of the programme's purpose and function through a preliminary promotion event. This promotional exercise, held before the players are formally enrolled in the SCP, ought to include greater involvement with parents, to define clearly the programme's goals and demands. To prevent the trial and error selection policy at the beginning, a better marketing strategy would target primary school pupils through a mid-year or end-of-year camp that was arranged to identify prospective talent. This would not only widen the scope for potential players, it would streamline the induction process, enabling the staff to make better and more informed choices. To facilitate this, MOE would have to be willing to allocate the designated pupils to CHS, while the Singapore Sports Council should consider the role of scholarships, through SPEX2000, to promote this flagship initiative. These policies would complement the open-door policy that is a current feature within the SCP.

In line with changing curriculum needs for the knowledge economy of the future, the government has modified university entrance qualifications to develop more versatile and creative students. Part of these amendments includes the requirement of active involvement in extra-curricular activities and if this is to happen, alternative curricula are critical: a specially designed curriculum is therefore necessary to support the needs of sports students. As schools have been given more autonomy to define their appraisal, in

theory, the SCP ought to be discrete and separate from the normal ranking exercise, with more appropriate criteria found for its assessment.

The Discipline

With reference to the weakness in the content and provision for physical education, more emphasis has to be placed on its role within the school curriculum and a greater commitment from the staff to re-assert the link between sport and physical education would raise the status of the discipline. However, the timing of school sports competitions during school hours and the pressure of zone competitions on school facilities leave the teachers in a quandary, as they cannot simultaneously teach their classes and coach their teams. Without the official status of an 'elective' programme, the Principal is constrained in staffing and as a consequence of the SCP being the main focus for the school, elite sport has a higher priority. This situation may be alleviated when all secondary schools become single session in 2000, allowing the ECAC to organise school competitions outside of curriculum time, thus relieving staff and facilities of this problem.

The enrichment programmes, designed to offset the curricular provision in physical education, have been successful in widening the scope of opportunities available to the NSC pupils. Although they cannot be considered as a substitute for physical education, it must be emphasised that these programmes have added a new dimension to the CHS sport and physical recreation profile. Despite the fact that major advances have been achieved through the SCP, elite sport, nevertheless, remains as somewhat of an anomaly in the current educational culture of the school.

The Providers

The Principal's and the coaches' opinions changed only marginally as the programme developed. Mr Tan made several structural changes in response to his perceptions of the players' needs, some of which created concern and ill feeling, but overall the SCP had delivered much of what the Principal had set out to achieve. Even the most critical member

of the coaching staff endorsed the scheme emphatically, although the issue of academic support, raised in Secondary 1, had never been satisfactorily addressed. Two of the coaches, although strongly committed to the SCP, were very concerned, however, about the final change to a single class, as they feared that, in the future, they would not have enough players in their squads to maintain their standards. Nevertheless, the staff, as well as the Principal, unanimously felt that the SCP had been successful in achieving its mission of academic and sporting attainment, thus supporting the value and merit of the sports programme from the school's perspective.

As the programme is a pilot project, there is no absolute necessity for the Ministry of Education to include the SCP pupils in the school ranking exercise; they could easily be exempted or assessed by different criteria. This would enable the Principal to experiment further with an alternative curriculum, specifically designed for the players' needs. Part of this design could utilise the government's foreign talent policy to recruit appropriately qualified staff. These staff members, like those from Millfield in the UK, would be graduates with top class coaching qualifications. Equally, the School of Physical Education (SPE), at Nanyang Technological University in Singapore, has a role to play in preparing the young professionals to teach the academic courses leading to Ordinary and Advanced level PE and Sports Studies or alternatively, a Singapore equivalent. SPE could also provide some of the coaching skills, coupled with the welfare skills that are currently adrift with the foreign coaches. It is important to consider, however, that one contentious issue for the school might be the counter culture that would be generated by appointing more qualified members of staff. Unless the teachers, who were appointed, were Chinese, the mindset, training and values brought with them would be very different from the language and culture currently practised in the delivery of sport at CHS.

National Sporting Associations could more efficiently streamline the administration of their coaching services to minimise the current disruptions in the provision of suitably qualified coaches. They could maximise their relationship with CHS by firmly backing the programme and treating it as a specialisation centre for these three core sports. If the NSAs have a meaningful intention to not only attract and utilise young foreign talent but

also to develop it, then they have to seriously consider whether the current infrastructure can accommodate this phenomenon. As young sports people from overseas require more than just accommodation, they need education and nurture, CHS can provide this welfare because the SCP is supported by a strong educational curriculum, as well as a caring and friendly ambience, that will develop educational, emotional and spiritual goals.

As talent identification has its roots in the schools, the support and goodwill of the NSAs is necessary to develop a sports system that can introduce electives in the primary schools, establish centres of specialisation in the secondary schools¹²³ and develop excellence initiatives through the junior colleges and the polytechnics. These schemes require very close monitoring, as well as a high calibre of coaching, to ensure that the best interests of the players are met socially, educationally and competitively.

Either, the NSAs must recognise the enormous potential of programmes, such as the SCP, by providing full time coaches for such schemes or alternatively, the school has to appoint full time academic staff, as at Millfield. However, if suitably qualified members of staff can be appointed to address the SCP's future needs, there is no necessity for the involvement of the NSAs, as they have yet to show any professional level of administration for the project. The concept, ingredients and facilities are currently operational and could be upgraded very quickly, if the Ministry of Education and the National Sporting Associations were prepared to make the necessary and appropriate commitments.

Programme Evaluation

The Principal outlined four original goals for the programme in a preliminary interview conducted in 1994. These goals were:

1. to help the sports players balance their studies and their sports;
2. to maintain and improve the school traditions in sport;
3. to help the country by developing national players; and

¹²³ Sydney, which is the size of Singapore, has many sports high schools, specialising in different sports.

4. to gain official recognition for the scheme.

Over the four-year span of the study only two of the Principal's original four objectives were achieved: the SCP improved the academic status of its participants and also the SCP improved the school's championship results, thereby assisting the pupils to balance their studies and their sports. The third goal (the development of national level representatives) Mr Tan realised was not as attainable as he had believed and thus decided that, from his perspective of success, this was an unrealistic objective. This adjustment to his goals may well be premature, because the development of national talent is far more difficult to assess, as the future is unpredictable. In the longer term the fruits of the SCP may flourish, as there were already players recognised annually with national colours, there were also players representing the Combined Schools teams and there were several players involved with SPEX2000 schemes. Additionally, many players were involved with community teams and were also involved in other sports, endorsing Hemery's (1986) point that most of the elite athletes he studied, eventually excelled in a different sport from the one that they participated in at school. Given the current social values, along with the accompanying educational climate in Singapore, serious sport essentially ends at 16 years of age, making the goal of developing national talent very difficult to achieve. However, it is important, nonetheless, to have this 'national' goal, to allow for the self-actualisation of all aspiring athletes, because nurturing this calibre of talent is a long-term process. Thus, making this assessment about national representation at Secondary 4 may be too early in the life of an elite athlete, unless the individual is obviously lacking in ability.

The fourth of the Principal's original goals had not been achieved, as the Ministry of Education had still not awarded the programme 'elective' status, although the Principal had not yet given up hope of this materialising. The study has shown that the SCP has merit and, with some conceptual adjustments, is worthy of recognition. This recognition would match the government's discourse and actions for promoting elite sport in the wider community. The programme could be described as an embryo in the development of sport specialisation in Singapore schools and, as a result of this study, a great deal has

been learnt about the model; the prototype now requires some reconstruction. Significant potential, evidenced by the academic and sports results, currently exists in the SCP for this development scheme to continue as a Centre of Sport Specialisation, albeit in a different format, perhaps as one of a cluster of centres within Singapore that develop different sports.

Recommendations

The study's recommendations are intended to address ways in which the scheme might be adjusted to yield better results in sporting and academic excellence for the students, not only within this school programme, but beyond, towards the nation's goal of international sports excellence.

1. Competitive Sport

More initiative has to come from individual schools to raise the profile of informal competition, as there is too little 'institutional' sport for participants. Examinations must not be the barrier in the future that they have been in the past, if sport is to flourish and this requires deregulation, in the form of alternative curricula. With schools now able to determine their own criteria for appraisal, pilot projects such as the SCP ought to receive more autonomy to develop their initiatives in an 'edu-preneurial' spirit. The government is encouraging more entrepreneurship for the knowledge economy of the future and therefore, such schemes require a better understanding that can be seen to visibly support its message about the importance of national heroes.

Looking to the future, ECAC must consider organising sport on at least a school-year basis, rather than the current two-year model. A league system, conducted over a 'season', would encourage more participation in 'B' and 'C' divisions. Matches could be played at weekends and during out of school hours, particularly as all secondary schools will be single session by the year 2000 and this will reduce the enormous disruption that is currently experienced in the present system. Schools should also be encouraged to

organise friendly matches and to develop reserve teams to further increase the participation base. All of this is essential and more if possible, if sport is to become a meaningful lifestyle component.

2. Academic Content

As a curricular sports programme, the SCP ought to contain some academic content related to sport, to raise its status and image in line with other 'elective' programmes. The SCP could offer an 'O' level or GCSE in Physical Education, as in the UK or Personal Development, Health and Physical Education, as in Sydney, to complement the skills training available for each of the three sports. Alternatively, a specifically designed Sports Technology course could be offered to enhance the players' technical and strategic understanding within the SCP curriculum.

3. Sports Development System

The SCP cannot be sustained in a vacuum and it is therefore important that the scheme is tied in with an 'A' level programme in one of the Junior Colleges. There is also a need to enhance the provision and delivery of PE/sport in the primary schools and the idea of a feeder programme at this level would also give these selected sports continuity, embracing the concept of giftedness in sport, throughout the system. Anderson Junior College has, so far, been unsuccessful in its application to MOE, to operate such a programme at 'A' level. A development system would tie in perfectly with the government's policy of introducing foreign talent to develop and transform local sport and Cathedral High School is the perfect location. The infrastructure is in place and with some fine-tuning, the SCP design, in conjunction with the SPEX2000 scheme, can further excel through CHS becoming a national residential Centre for Sports Specialisation.

4. Centres for Sport Specialisation

The topic of sport schools has recently been raised in the media, particularly in relation to soccer, but ironically this proposal was mooted as long ago as 1972 by S T'Ratnam in the National Sports Promotion Board's recommendations for the future direction of sport. This notion deserves further consideration and support, not just for soccer, because within the SCP model the embryo for sports development exists and it is soundly strengthened within an academic framework, which provides accountability for any future investment. The Football Association, in England, employed this concept for its Centre of Excellence at Lilleshall and a number of the country's current top players are products of this very professional system.

5. Sponsorship

Cathedral High School has already been the benefactor of a limited sponsorship by a local Golf and Country Club, in recognition for the school's contribution to sporting achievement. The notion of sponsorship could be extended to support the programme more directly and to develop, amongst other elements, the staffing ratio or to attract a higher calibre of personnel that is necessary for a Centre of Sport Specialisation. The Principal could also consider increasing the school fees for players in this special programme, which could be used to further improve the quality of provision. The SCP would then become a scheme for capital generation, which could provide scholarships for deserving students, locally as well as internationally.

Epilogue

Finally, the evaluation of the sports class model, as a curriculum initiative, has identified features and recommendations that could be adopted by other secondary schools struggling to deal with the balance of sports and studies. However, the critical factor in the implementation of such a scheme is the vision, tolerance and perseverance of the Principal:

someone who believes that sport is important and has a central role to play in developing an all round personality in a school setting.

Singapore won 14 medals in the 1998 Asian Games in Bangkok and this was the best medal haul since the inaugural games in 1951, when 10 medals were won. According to Prime Minister Goh Chok Tong (Straits Times, 13th January, 1999), this was an indication that the SPEX2000 scheme, launched in 1993, was on track.

As a little nation, we cannot hope to do well in all sports....We should continue to focus on a number of core and merit sports which give us the best chance of winning....These are games which require skills, concentration, and precision instead of height, weight and great physical strength. These are sports where Singapore can build a name for itself.....As for badminton, I would like to see our shuttlers taking on the best in the world. Certainly, we should aim to do well in the Thomas Cup. Our chances of winning the Thomas Cup are better than making it to the World Cup Finals in football. I've set this target for the shuttlers.

Prime Minister Goh Chok Tong, 12.1.99.

In light of the previous statement, the SCP, as a potential Centre of Sport Specialisation, would appear to have a clear role and function in the preparation of sporting champions for the future and therefore deserves appropriate acknowledgement through legitimisation.

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APPENDICES

Appendix 1: Approval

MINISTRY OF EDUCATION

KAY SIANG ROAD
SINGAPORE 1024
REPUBLIC OF SINGAPORE



P.O. Box 746
Telephone: 4739111 (44 lines)
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Telefax: GNT 028
Cable: EDUCATION

Ref. No. **Edu N32-07-005 Vol 35**

Tel No. **4709449**

17 May 1994

Mr Michael C. McNeill
Lecturer
School of Physical Education
National Institute of Education
469 Bukit Timah Road
Singapore 1025

Dear Mr McNeill

A STUDY OF THE SPORTS CLASS CONCEPT

I refer to your request dated 9 May 1994, for approval to collect data from schools.

2 We are glad to inform you that your application to conduct the above study in schools has been approved. The approval number is ESS/94/36. Please print this reference number on all your documents and questionnaires.

3 We would appreciate that you get the consent of the principals of the schools that have been selected before commencing the study.

4 Kindly observe the following general conditions of approval for conducting survey in schools:

- 4.1 To follow the original proposed research study.
- 4.2 That you would not publish your findings without clearance from the Ministry of Education.
- 4.3 That on completion of your study, a copy of the final report be submitted to us.

Yours faithfully

LOH ENG GEOK
for PERMANENT SECRETARY (EDUCATION)
MINISTRY OF EDUCATION

Appendix 2: Consent Form

**NANYANG TECHNOLOGICAL UNIVERSITY
NATIONAL INSTITUTE OF EDUCATION
SCHOOL OF PHYSICAL EDUCATION
MOE Ref. No.: ESS/94/36
INFORMED CONSENT AGREEMENT**

You are being asked to voluntarily participate in a study of the Sports Class at Cathedral High School. This study will be conducted over at least the next three years and will involve a number of measurement procedures concerning aspects such as attitude, fitness, skill development and academic achievement.

The first measurement will involve the assessment of levels of fitness as well as the collection of personal details. All participating first year Sports Class members will be tested to find their maximum oxygen uptake or VO_2 max (a measure of their aerobic capacity). A sample of pupils will also be measured randomly from other classes that are not designated as a Sports Class in order to compare the results of the different programmes.

The fitness test involves running repeatedly over 20 metres to exhaustion or to the individual's perception of exhaustion. This test is used internationally as a means of identifying levels of fitness. Each individual has control over the duration of the test and can stop whenever he / she feels that they can run no longer. There will be first aid facilities on hand in the event of any discomfort or injury and water will be made available to prevent dehydration. This test will last about 15 minutes for each individual.

In addition to this test I will also be measuring the height and weight of each participant prior to the test and asking each participant to complete a short questionnaire. A similar test will be conducted every year for the next three years in order to trace the development of fitness through the programme of excellence.

As a participant in this study you will gain a greater understanding of your own personal level of cardiovascular fitness as well as the levels of your fellow students. In addition the findings may have significant implications for the planning, training and development of the Sports Class.

The investigator in this initial study is Mr. Michael McNeill who is a lecturer at the School of Physical Education, N.I.E.. If you have any queries about the test you may contact Mr. Michael McNeill at 460-5375 and leave a message on his answerphone if he is not in.

Testing will take place on Thursday 7th. July 1994 from 8 - 10 am, approximately.

**INFORMED CONSENT
QUESTIONNAIRE / 20 METRE SHUTTLE RUN**

1. The purpose of the study and this particular test has been clearly explained to me.
2. The procedures to be followed with a description of risks attendant to the procedures, have been explained to my satisfaction.
3. I know that if I have any queries concerning procedures or other aspects of this study that I am encouraged to ask the investigator(s).
4. I am free to withdraw consent and to discontinue participation in these studies at any time without prejudice.
5. I will not be identified by name in any manuscript and all personal data and information shall be confidential to the researcher.
6. There are no known medical reasons, which may prevent my participation as a subject in this study.

Name of Participant.....

Signature _____ Date

Parents / Guardians Signature _____ Date

Appendix 3: Comparative Data from a National Survey of Children's Exercise Habits

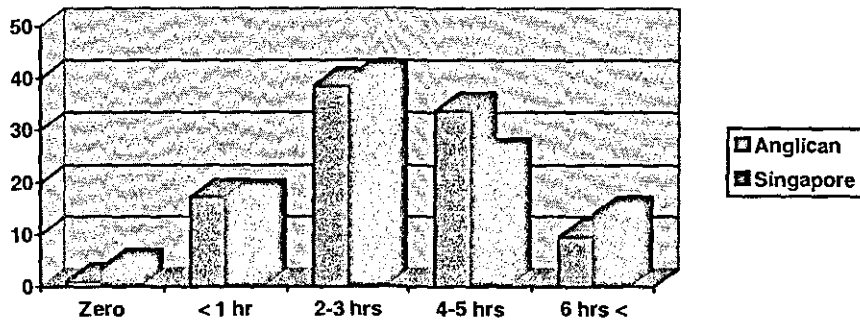
When asked about their participation in sport outside of school the pupils of Cathedral High reported that they participate on average between once and twice a week with the majority averaging twice a week. The most popular activities were swimming (23%), basketball (18%), badminton (17%) and cycling (14%).

Whilst at primary school the majority of pupils (68%) had been involved in sports outside of their physical education lessons at a recreational level, 21% at primary school team level, 5% at district and an equal number (5%) at national level.

There is a close similarity between the major out of school interests of the pupils and the sports selected for specialisation through the sports class programme with badminton ranked at 1, basketball at 2 and table tennis at 5. These activities accounted for 50% of the total responses.

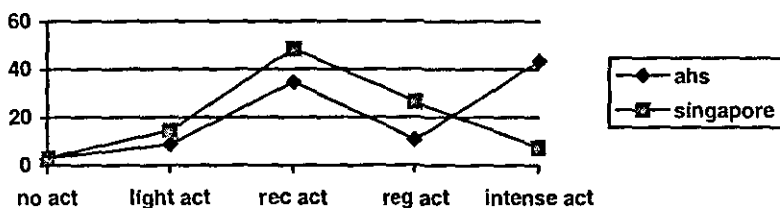
The pupils were asked how much time they spent during the week watching television and videos or playing computer games before or after school. 39% of the pupils watch 2-3 hours of television per week whereas 34% watch between 4-5 hours per week. Boys (3.42) had a slightly higher average amount of time in front of the screen than girls (3.18). Class 1F reported the highest level of viewing amongst the four classes whilst the sports classes (3.45) watched more television than the non-sports classes (3.14). Badminton players (3.6) had the highest average amongst the sports classes for tv-video-computer participation before and after school.

- A mean of 3 = 2-3 hrs and a mean of 4 = 4-5 hrs of tv per week.

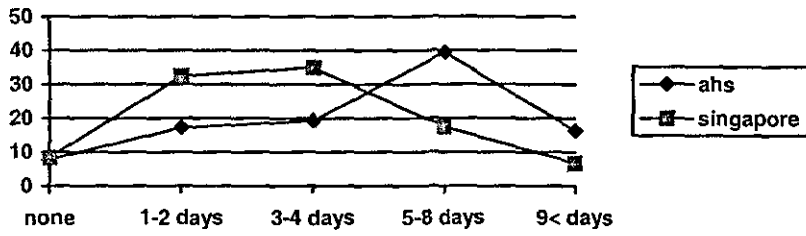


The questionnaire identified five levels of intensity in physical activity ranging from no regular activity at level one, occasional recreational activity at level three and extensive physical activity at five. When asked to identify the intensity of their physical activity during the week 42.9% perceived that they were involved at the most intense level = 5. This was the equivalent of participating in extensive physical activity for 60 minutes or more at least four times a week. 11.6% of the pupils were engaged at level 4 which involved between 30 - 60 minutes of participation at least 3 times a week and 33% at level 3. Level 3 indicated an occasional involvement in recreational activities. At the lower end of the scale 12.5% of pupils spread over level 1 and 2 indicated that they participated in no regular, organised physical activity in their leisure time whatsoever.

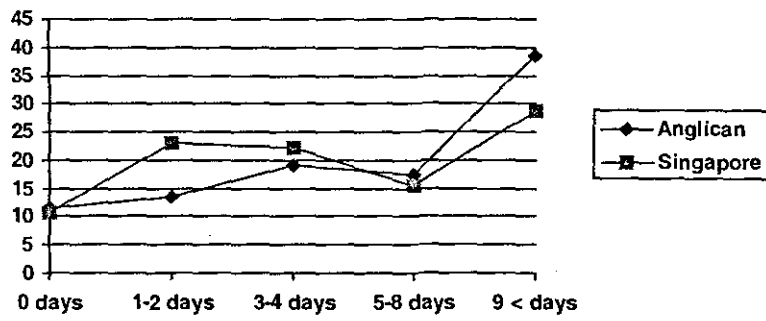
Activity Levels



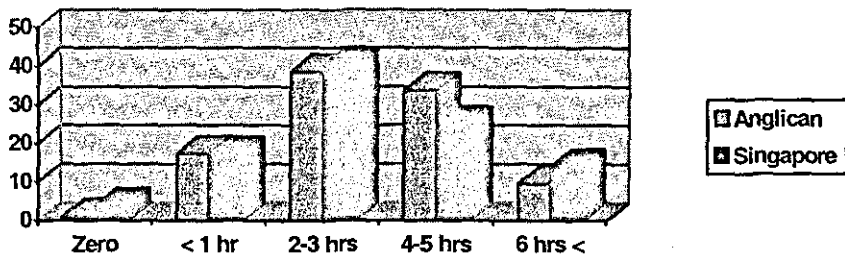
Hard Exercise Levels



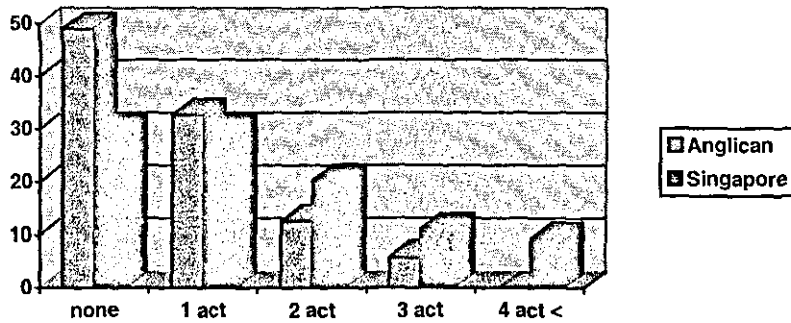
Light Exercise Levels



TV Hours



Organised Competitive Sport



Appendix 4a: SCP Players Questionnaire Format

SPORTS CLASSES 2F & 2G

NAME..... I/C..... MALE / FEMALE

1. Please indicate which group you belong to:
- Badminton
 - Basketball
 - Table tennis

To answer the following questions select the response that best suits your opinion:

- 1= Strongly Agree, 2= Agree, 3= No Opinion / Don't Know, 4= Disagree, 5= Strongly Disagree
2. When I first came to Cathedral High I was interested in becoming a member of the Sports Class because:

- a) I have strong sporting ambitions. 1 2 3 4 5
- b) I was interested in my chosen sport at primary school. 1 2 3 4 5
- c) It offered me an opportunity to develop my sporting ability. 1 2 3 4 5
- d) I had a general love of sports. 1 2 3 4 5
- e) It would be more fun to be with my friends. 1 2 3 4 5
- f) I want to become a professional sports person. 1 2 3 4 5

3. The Sports Class programme was a new idea for the school in your first year.

Please indicate how you felt about the Sports Class programme before you started at Cathedral:

- a) I was enthusiastic about joining the Sports Class. 1 2 3 4 5
- b) I was apprehensive about joining the Sports Class. 1 2 3 4 5
- c) I knew nothing about the Sports Class programme. 1 2 3 4 5

4. Please indicate how you feel about the programme at the moment.

- a) I like the Sports Class programme more now than I did at the start. 1 2 3 4 5
- b) I like the Sports Class programme about the same as I did at the start. 1 2 3 4 5
- c) I like the Sports Class programme less now than I did at the start. 1 2 3 4 5

5. Please indicate how much you think you are achieving in the Sports Class.

- a) At the moment I am making a great deal of progress in the Sports Class 1 2 3 4 5
- b) At the moment I am not making any progress in the Sports Class. 1 2 3 4 5

6. I am happy as a member of the Sports Class programme.

1 2 3 4 5

7. I get a lot of *personal* attention during Sports Class.

1 2 3 4 5

8. The Sports programme is physically demanding (hard work).

1 2 3 4 5

9. I have been able to cope academically while in the Sports Class.

1 2 3 4 5

10. Taking everything into account the Sports Class programme is more demanding than the non-sports programme .

1 2 3 4 5

11. In terms of my overall education there is an advantage being in the Sports Class.

1 2 3 4 5

12. My academic results are as good as the non-Sports Class pupils.

1 2 3 4 5

13. Being in the Sports Class has caused difficulty with my parents.

1 2 3 4 5

14. Being in the Sports Class has caused difficulty with my homework.

1 2 3 4 5

15. Being in the Sports Class has caused difficulty with my friends.

1 2 3 4 5

16. Being in the Sports Class has caused difficulty through injury.

1 2 3 4 5

17. I think that being in the Sports Class has not disadvantaged me.

1 2 3 4 5

18. I am proud to be a member of the Sports Class.

1 2 3 4 5

* PLEASE CIRCLE AROUND THE MOST APPROPRIATE ANSWER

19. As a Sports Class player I think I have the ability to play my chosen sport at the following level:
sports class / school team / district (zone) / national / international

20. Which word in your opinion best describes the teaching/coaching of sport in the Sports Class programme:

excellent very good good not very good poor

21. In which of the following areas do you spend most time in your chosen sport?

Team strategy / drills / individual skill / games / fitness

22. Circle the area in which you have improved most?

individual skill attitude personal fitness game knowledge team play

Appendix 4b: SCP Players Questionnaire Results

* = Substantial difference in the value of opinions expressed by boys and girls.

Q2. When I first came to Cathedral High I was interested in becoming a member of the SCP because:

- a) only 52.2% had strong sporting ambitions
- b) 73.1% had been interested in their chosen sport at primary school
- c) 91% agreed (31.3% strongly) that it gave an opportunity to develop their sporting ability
- d) 92.6% had a general love of sports
- e) 68.7% agreed that being in the sports class would be more fun as it would allow them to be with their friends-this indicates the power of friendship in the selection of courses for the secondary school
- f) only 15% indicated however that they wanted to become professional sports people and 50.7% had not thought about it or had no opinion but boys favoured this question more highly than girls

Q3. The sports class programme was a new idea for the school in your first year:

- a) only 44.7% were enthusiastic about joining the sports class but 41.8% had no opinion about the answer or did not know
- b) 23.9% were apprehensive about joining the sports class but 55.2% had no opinion
- c) 47.7% indicated that they knew nothing about the sports class before they arrived at Cathedral, however 40.3% were aware of the programme

Q4. Indicate how you feel about the sports class programme at the moment:

- a) 68.7% like the programme more now than they did at the start * boys valued the programme slightly higher than girls
- b) * 37.3% like the sports class programme about the same as they did at the start 37.3% did not agree with the statement: "I like the sports class programme about the same as I did at the start."
- c) in answer to the statement I like the sports class less now than I did at the start: 80.6% disagreed, boys were more emphatic than girls

Q5. Please indicate how much you think you are achieving in the sports class:

- a) * 44.7% reported that they were making a great deal of progress, 47.8% had no opinion Boys are much more positive than girls
- b) * 54% disagreed with the statement that they were not making any progress. 7.5% admitted that they were not progressing at all. Boys expressed a higher level of disagreement than girls

Q6. 95.6% reported that they were happy to be members of the sports class programme.

Q7. In answer to the question "I get a lot of personal attention during sports class" 22.4% agreed, the majority had no opinion, 26.9% disagreed, indicating that there did not appear to be a lot of individual attention during sports class

Q8. 73.1% found the sports class physically demanding in terms of hard work.

Q9. 68.7% admitted that they could cope with academic demands; 7.5% reported a difficulty in coping.

Q10. 76.1% thought the SCP, taking everything into account, was more demanding than the NSC programme.

Q11. 67.1% thought that there was an advantage in terms of their overall education by being in the sports class. Only 6% did not.

Q12. 37.3% felt that their academic test results were as good as the NSC pupils, 50.7% did not know and 11.9% thought that NSC pupils had better test results.

Q13. 58.1% didn't think that being in the sports class had caused any difficulty with their parents and 26.9% didn't know.

Q14. 43.3% reported that there were no difficulties with homework as a result of being in the SCP, 28.4% had no opinion and 28.4% reported that they had experienced difficulty.

Q15. * 86.6% reported that there had been no difficulty with friendships through being in the SCP.

Q16. 20.9% reported that there had been difficulty caused by injury however.

Q17. 74.7% agreed that being in the sports class had not disadvantaged them.

Q18. * 94% reported that they were proud to be members of the sports class.

Q19. * The SCP pupils were asked to identify their ability level. 32.8% felt at the SCP level, 34.3% were of school team standard, 14.9% thought their ability was Zone standard and 17.9% as national players. Again boys had a higher opinion about their ability than girls.

Q20. * Again a substantial difference between the opinions of boys and girls to the question of "which word best describes the quality of teaching /coaching you receive" 13.4% described it as excellent, 52.2% as very good and 31.3% as good. Boys rated the coaching higher than girls.

Q21. The sports players were asked where the most time was spent: Team strategy 16.4%, drills 13.4%, individual skill 50.7%, games 7.5 and fitness 11.9%.

Q22. The players were then asked where they felt they had improved most 43.3% individual skill, 1.5% attitude, 23.9% personal fitness, 20.9% game knowledge and 10.4% team play.

In the total sample 26% of all questions had a score of 3 (no opinion / don't know) indicating possibly several things: a) a cultural (conservative) response b) a lack of maturity and consideration of the programme and its implications or c) they genuinely had no opinion.

Appendix 5a: NSC Pupils' Questionnaire Format

Classes: 2D & 2H

* Please fill in the blank or circle the most appropriate answer.

Name..... I/C..... Male / Female

1. What is your favourite sport or physical activity?

2. Do you get to practise this sport or activity in PE lessons? Yes / No

For the rest of the questions select the response that best suits your opinion:

1 = Strongly Agree 2 = Agree 3 = No Opinion / Don't know 4 = Disagree 5 = Strongly Disagree.

- | | |
|--|-----------|
| 3. PE lessons include activities that interest me. | 1 2 3 4 5 |
| 4. I think that PE lessons are very enjoyable. | 1 2 3 4 5 |
| 5. I think that PE lessons are designed to get me physically fit. | 1 2 3 4 5 |
| 6. I think that PE is very well taught. | 1 2 3 4 5 |
| 7. The SCP pupils have a more enjoyable programme of sport and physical activity. | 1 2 3 4 5 |
| 8. The SCP pupils get better tuition. | 1 2 3 4 5 |
| 9. The SCP get to use better facilities (school hall/ sports hall). | 1 2 3 4 5 |
| 10. The SCP get to use better equipment (eg.rackets,balls). | 1 2 3 4 5 |
| 11. The SCP pupils receive more personal attention in sport and physical activity. | 1 2 3 4 5 |
| 12. If chosen I would prefer to be in the SCP rather than a non-sports class. | 1 2 3 4 5 |
| 13. The school achieves glory through the ECA success of the SCP. | 1 2 3 4 5 |
| 14. The school gets good media publicity from the SCP. | 1 2 3 4 5 |
| 15. As a NSC pupil at Cathedral High I also share in the success of the SCP. | 1 2 3 4 5 |
| 16. As a NSC pupil I support the idea of a SCP. | 1 2 3 4 5 |
| 17. I think that the SCP pupils have an unfair advantage. | 1 2 3 4 5 |
| 18. I think that the NSC pupils work harder. | 1 2 3 4 5 |
| 19. I think that the SCP pupils will get better 'O' Level results. | 1 2 3 4 5 |
| 20. I think that the SCP will help gain entry into a higher ranking JC. | 1 2 3 4 5 |

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Appendix 5b: NSC Questionnaire Results

When non-sports students were asked what their favourite sport or physical activity was, their replies were as follows:

Primary (Out of School)	Cathedral Year 1	Cathedral Year 2
1. Badminton 22%	1. Swimming 23%	1. Swimming 23%
2. Basketball 21%	2. Basketball 18%	2. Badminton 20%
3. Swimming 12%	3. Badminton 17%	3. Soccer 19%
4. Soccer 10%	4. Cycling 14%	4. Basketball 15%
5. Table tennis 7%	5. Soccer 10%	5. Cycling 13%

In 1995 (Sec 2) Roller-blading, tennis, squash, skipping & Table tennis together made up only 10% of the overall interest level. These results are similar to the first year choices with swimming maintaining its premier position with the same yield as in 1994, badminton improves its rank from 3 to 2 with an increase of 3% and is closer to the primary school interest level. Soccer comes from 5th to 3rd and polls 19%, almost scoring as much as badminton. Basketball slips from 2 to 4 with a slightly lower yield (15% compared to 18% in 1994 and 21% in 1993) and cycling is very slightly lower at 13% compared to 14% a year ago. From their primary school days until now (in less than two years) soccer has increased almost 2-fold in popularity. Table tennis was really shown to be slipping in popularity by this stage (Sec2, 1995)

When 78% of the pupils reported that they were not able to practice their favourite activity in PE lessons. There perhaps needs to be an inquiry or rationalisation to find out the cause of this discrepancy between pupils interests and curriculum activities, particularly if we want to develop lifelong interests in physical activity through our PE programme.

However this is somewhat compensated for by the fact that 43 % reported that PE included activities that did interest them, although this represents less than half. For the 35% that indicated PE did not include activities of interest to them, there appears to be a sizeable problem, which Physical Education teachers should be reflecting on, i.e. that physical education is not catering very successfully for the interests of secondary age pupils.

When asked if PE lessons were very enjoyable 38% were in agreement and 29% in disagreement with the statement. One third (33%) had no opinion. The neutrality of this 33% perhaps indicates that they did not find the lessons enjoyable and therefore reflects more of a negative perception of their physical education programme. This group is, after all, representative of the vast majority of students in the school.

Pupils were then asked if physical education lessons were designed to get them physically fit and 78% thought that it was, only 6% thought differently. It is a disappointing result from a physical education perspective when fitness is perceived to be the major, if not the only focus of the programme. A relatively large number (29%) agreed strongly with this statement.

Just over one third (35%) thought that PE was well taught, and nearly half (48%) had no opinion about the question whatsoever. Once again the PE programme is not matching the interests of the pupils and additionally it is possible to draw the conclusion that the non-sports pupils perception is that it (PE) is not very well taught, as the majority have no opinion.

The next few questions were concerned about finding out the pupils perceptions of the sports class programme:

- 54% thought that the other pupils in the sports classes had a more enjoyable programme of sport and physical activity - 36% had no opinion.
- 29% thought that the sports classes had better tuition - 59% had no opinion and only 11% disagreed.
- 72% thought that the sports classes were able to use better facilities, 17% had no opinion and only 10% disagreed.
- 68% thought the sports class pupils were able to use better equipment, 19% had no opinion and 13% disagreed

- 75% thought that the sports classes received more personal attention in sport and physical activity, only 4% disagreed.

The last 3 statements are a source for further reflection on the equity of resources and facilities available to the NSC children. In particular certain facilities like the school hall and the best equipment being exclusively reserved for the sports class pupils.

When asked if they themselves would prefer to be in the "sports class" if selected only 16% indicated that they would prefer to be in a sports class, 55% would not and 32% didn't know. In terms of publicity and kudos:

- 59% thought that the school received glory through the ECA success of the SCP and only 16% did not.
- 61% thought that the school received good media publicity from the SCP, and only 7% disagreed
- 43% agreed that as NSC pupils they also shared in the success of the SCP, 36% had no opinion and 20% disagreed.
- 48% (nearly half) of NSC pupils supported the idea of a SCP, 36% had no opinion and 16% disagreed.
- 25% thought that the SCP had an unfair advantage at Cathedral High School, 51% had no idea and 25% disagreed. The answer to this question appears to be seated quite neutrally as with the next question where 25% thought that the SCP pupils worked harder, 46% had no opinion and 29% disagreed.

Even with the special privileges of the SCP only 10% thought that the sports class would get better O level results, 65% had no idea and 25% disagreed with the statement. Almost a third however (30%) thought that the SCP would help the sports pupils to gain access to Junior College, 51% had no opinion and 19% thought otherwise.

Summary

It would appear from the results that the NSC pupils did not feel overly threatened (academically) by the sports class programme and were, themselves, quite happy not to be part of the programme. They appeared to gain a little from the publicity and kudos of the programme but acknowledged that the SCP pupils were getting a better programme of physical activity, better use of facilities and better equipment. This was happening whilst their own interests were largely not being addressed by the school's physical education programme.

Appendix 6: Examples of Field Notes in Diary Form

February 19th 1997: Teaching Practice Supervision

Visited Cathedral on supervision, no cooperating teacher on hand for discussion. Approached the basketball coach for details of impending interviews and made arrangements for these to be conducted during the school mid term break as far as the sports class students were concerned. As for those children who had been dropped from the programme but were in the sports class at the beginning, it was brushed aside and I was told that I had to sort that out with the principal. Another case of some assistance but also an example of the level of assistance and cooperation of the staff and of their perception of their contribution to the sports class which is extremely partisan.

March 24th 1997

The Head of Department, who is travelling around the island with teams for competition tells his supervisee that he cannot make a supervision. He moreover objects to making 3 obligatory reports on the student's teaching because he is too busy and he has not had to do this before. While this is happening the pe class is playing basketball on its own while he is discussing things (of relative unimportance) with others, while the student is conducting classes.

April 8th 1997: Students on TP

I was informed by one of my PGDE students on TP that he didn't have a co-operating teacher as he was being given the classes of a relief teacher who was being laid off as a result of TP. The Sports Secretary couldn't act as a co-operating teacher as he was the co-ordinator of the basketball tournament. In effect there is no one to supervise the student on TP and technically no one to write a report. Such is the status of PE in the "Sports Class" programme.

As well as the field notes that were collected during many visits to the school over the four years to collect data, to meet staff and make all necessary arrangements and to assess students on practicum, time was taken to visit each of the three sites used for training. All of the school physical education and teaching staff were observed coaching during normal training sessions. Additionally a video recording was made of the basketball training in order to substantiate training procedures in this sport over a two hour training session. This helped to identify some of the coaching as well as training characteristics that were practised in the programme. Different characteristics were observed in all three sports, with badminton players (some at least) appearing to get more individual assistance than the others.

Appendix 7a: Pupil's Interview Format

Interview Questions

Self

Tell me a little about yourself, your sport and the sports class? How has it changed this year? Has this affected your enjoyment / participation at all? How did you feel the 20 mst test went the other day? Were you pleased with your score? Would you say you have you been successful in the sports class? How would you describe/define this success? Have you missed out by not doing any PE in the 3 years here? On the opportunity to do something other than basketball? Have you any friends outside the sports class? Do you participate in any other sports or physical activities other than basketball in or out of school? Besides sport what other interests do you have? Do you have any friends who are not in the sports class or at Cathedral? Have you ever been tempted to cheat or be dishonest (say to win a point or to put a player off the court)? What caused you to do this? Was it pressure from the crowd, your teammates, your coach or from yourself? Do you have a moral obligation to the school to be honest, or to yourself? Are there any rewards for being honest or virtuous? Do you see your sport in terms of being hard work or playful? Are you right or left handed? Faced with the prospect of failing at school would you rather fail in the classroom or on the basketball court? Is there some prestige attached to being in the sports class? As much as before? Do you enjoy this? In your opinion how do the other pupils in school regard you?

Family :

Do you have any brothers and sisters? What position are you in the family? Do they play sport ? Are any of them in the sports class too? In your family are you the eldest, how many brothers and sisters have you? What is your position in the family (1of 2,2 of 3 etc)? Do your parents support your involvement in sport? Have your parents always been supportive? From when? Do your mother or father participate in any form of physical activity? How often do they participate? Who encourages you most in your sport, your mother or father or both about the same? What kind of help and/or assistance do your parents give you to develop your sport? Have your parents ever seen you play? How often? Have your parents ever met your coach/ teacher ? Have they talked about your sport development?

SCP:

Are you happy that you chose to come to Cathedral High? Why? Are you glad that you joined the SCP? If you were starting Cathedral again would you want to be in the sports class? Why? From the students who started the sports class in year one some have dropped out? Why? What do you think about that? Is it fair? What about people still in the sports class do you think they still deserve to be part of the group? Have any pupils joined the sports class after the beginning in year 1 ? What do you think about that? Are there any pupils in the non sports classes that you know of who are good enough to be considered but don't want to be ? Some are fitter? Can students from the non sports classes play for a school team, if they are good enough? By coming only to the after school training? In matches are you under pressure to win, to play well or both? Do the older players assist the younger players at all? In what way? Is this a feature of the sports class? Who puts you under pressure: yourself, your coach or your peers? Are you experiencing any more stress this year than previously? In what particular area (play, studies, homework, exams)? Are you relaxed or tense when playing for the school? Do you still enjoy playing basketball as much now as you did at the start, in sec1? What is the most satisfying part of the game for you? At the end of the game what is the most important thing for you, to have played well, or to have won? Do you have to win to feel satisfied with your game? Can you lose and still enjoy playing? What upsets you most in the game? How important to you are the results of your games, winning trophies, being praised by your coach, or your team-mates? Is it more important that you win, the coach wins or the school wins? What causes the greatest stress in your competitive sport? (your opponent, self, your coach or the environment) Do you train til it hurts? How often? Which is the best sport? Why? Is there good morale / team spirit in the sports class? As much as before in the first and second year? The SCP is going to start in the second year next year, is that a good idea? Would it have helped you or hindered you if it had been like that from your start at Cathedral?

Goals:

Are you encouraged to set personal goals in the sports class? Have you set yourself any goals in your sport? Have these goals been set by yourself or by someone else (your parents, your coach, the principal)? What do you want to achieve in the future? Will you still be playing basketball at junior college? Will you choose a Junior College because they are good at basketball? Do you still want to be a better basketball player? How do you think you can achieve this?

Physical Education:

Would you have liked to have PE as well as your sports class activities? Why? What could PE do to make itself more relevant for you in the sports class?

Friends:

Do you have any friends outside the sports class, outside the school? How are you perceived by the non sports class pupils? How does this make you feel?

Competition:

How does the Sports Class programme at Cathedral compare with other schools programmes? Why are the other schools able to compete with you?

Coaches:

Have you experience any change of coaches? How did this affect your training, attitude and emotions towards your sport? How different were they in their methods? Are you happy with your coach? What is his/her strength? How does he/she get the best out of you? Are your coaches supportive or critical when you are losing or have lost a game? Is this acceptable? Are you encouraged to ask questions or make suggestions? Is there any major suggestion that you have made that has been accepted and used in training or in match play? Does the coach encourage you to think? When you are playing matches does the coach yell at you from the sideline or does he allow you to play your own game?

Appendix 7b: SCP Interview Data

In this section the information that was retrieved from the interviews is presented and is purely descriptive. Approximately half of the interviews (30) were completed towards the end of Secondary 3 and the remainder (33) were completed in the first half of Secondary 4 (1997) before the national championships were held. As the interview was designed around the conversation that developed between the interviewer and the SCP pupil, not all of the interviewees were asked the same questions or in fact all of the questions, as some were directly related to their status (current SCP, ex-SCP, team or non-team player). The interviews varied in length from about 20 mins for the shortest to just over an hour for the longest. The majority of pupils (n= 63) who started the SC in 1994 were interviewed personally and privately. There were 25 pupils from badminton, 24 from basketball and 14 from table tennis with more or less equal numbers of boys (31) and girls (32). The total included children who had left the SCP of their own free will but were still in the school, those who had been asked to leave through falling grades as well as those who still remained in the SCP in Secondary 4, although they were not team players.

Just over half the pupils (n=35: 56%) were current players for the school (47% girls/65% boys) at the time of the interview, 54% of all SCP players had played regularly (47% girls/61% boys), mostly from table tennis (79%). Almost one in six pupils (17%) described themselves as ex-team players (25% girls/10% boys), another 22% had played infrequently (31% girls/13% boys), while two girls (3%) described themselves as ex-team reserves (being in the squad without actually playing, 6% of girls only). Table tennis boys reported the most regular match-play at 86% and badminton girls the least regular match play (29%). In addition two players were being trained by the SBA through the SPEX2000 scheme and one boy was in the school team but not in the sports class (at the time of the interview: 2 more of them subsequently achieved this status).

However, about 25% of boys and girls interviewed had never played for the school during their SCP life (22% girls/26% boys), mostly from badminton (32%-affecting more boys than girls), a few less from basketball (25%- again more boys than girls). Only one girl from table tennis had never represented the school. The highest percentage of current team players came from table tennis (71%), but this is hardly surprising as they were the smallest group (14) and the lowest percentage of current team players came in badminton (badminton girls in particular). Table tennis boys reported the most regular match-play at 86% and badminton girls the least regular match play (29%).

Cathedral High

The vast majority of pupils (n=58, 92%) were happy that they had come to Cathedral High School, only 2 respondents (1 badminton boy and 1 basketball girl, 3%) were not happy. Although the numbers of boys and girls were almost equal the boys (97%) registered a slightly higher rate than the girls (88%). Three quarters (75%) reported feeling more stress in the latter part of Sec 3 and the beginning of Sec 4 than in any other stage of their secondary schooling. The stress was felt more by the girls (81%) than the boys (68%) and the badminton group reported the largest number of responses (84%: badminton girls in particular - 93%). Table tennis players (64%) were less aware of the stress than the others.

Three out of five pupils (61%) mentioned that studies or study related pressures were responsible for that stress and the ratio of boys to girls was quite equal as well as equal across groups. A further 18% mentioned that most of the stress came from their attempts to juggle their sport with their studies. In this area the girls (29%) reported a higher ratio than the boys (7%) and the badminton players reported the highest number of incidences (25%) with girls appearing to have the greatest difficulty (36%). This ties in with the results of the previous paragraph.

However, on the topic of balancing studies and sport, 48% said that they could manage, with the larger percentage coming from boys (63%), compared to girls (40%). Almost half (48%) said they were finding it difficult however, and cited outside training (SBA) and recent intensities of sport (in Sec 3 and Sec 4) as some of the significant reasons. The group that were seemingly balancing their studies best were the basketball players (64%), boys in particular and least were the table tennis players (33%). The badminton girls (60%) appeared to be best in balancing studies and sport among the girls (all of the pupils who were no longer in the sports class were eliminated from this calculation). This is not a contradiction of the previous paragraph but rather a description of the badminton girls, a group which has a majority able to handle the stress of studies and sport and almost the remainder unable to cope. The current team players, who represented 47% of the girls, were the worst affected with 40% indicating having a difficulty.

About one third of the players (n=22) were asked if they thought that it was fair or even appropriate that pupils were asked to leave the SC because they were not keeping up with their academic studies and nearly

three out of five (59%) said that it was. Boys (70%) were more strongly in favour of this statement than girls (46%). Only 18% thought that it wasn't fair, the majority of whom were girls (25%) compared to boys (10%). Those who thought it unfair thought that the school should try a bit harder for these pupils and persevere a bit longer.

Three quarters (75%) of the pupils reported that the organisation and administration of the SCP had been changed in Secondary 3 and 4 and 37% said that this had affected their enjoyment in the SCP to a certain extent (twice as many girls - 48% to boys 24%). The badminton boys and girls plus the table tennis girls were most affected (>50%), but 63% stated that their enjoyment of the SCP had not really been affected (52% girls/76% boys). Basketball players (71%) were least affected by the changes and boys (91%) more than girls (60%).

The pupils were asked whether they would rather fail in their sport or their studies to identify how serious they were about their sport in the Singapore context. Just over three-quarters (76%) of players would rather fail in sport than studies (slightly more boys than girls), 16% reported that they would rather fail in neither sport nor studies (twice as many girls -23% as boys -10%) and only four pupils 6% were prepared to do battle for sport. Table tennis players were 100% behind their studies.

Most of the pupils (95%) reported that they were encouraged to set goals but the most important person, by far, in this exercise was the 'self' (75%), parents and teachers were equal at 7% and other influences like coach, team-mates and friends were rather an insignificant influence. This indicated that it was more a feature of their stage of development and their schooling than it was a sports class initiative as a strategy for achieving success or coping with the pressure. The responses to this question were similar for boys and girls and within groups. This question was followed up to ascertain what goals the pupils had set for themselves. The majority (48%) had set goals for both their sport and their studies and there were twice as many boys (65%) as girls (31%) although relatively equal within each sport group, 37% had set study goals, and 3% alone had set purely sport goals. Only 5% overall had set no goals whatsoever.

Some of the pupils (n=22) were asked, from their personal experience taking everything into account if they would recommend the SCP to other schools - 55% said they would, boys (88%) were much more supportive than girls (36%), 14% were uncertain and the 31% who said they would not were all girls, spread more or less equally across the three groups. When asked why other schools, without a SC programme, were able to beat Cathedral at national level the pupils gave the following 7 responses:

Table 1: Reasons Why Cathedral Loses in National Competitions

Rank	Reason : Other schools	Total (%)	Girls (%)	Boys (%)
1	Have more team spirit, better motivation, more enthusiasm, better attitude and more confidence	21	27	15
2	Have a good stream of players from primary school, train more and better coaches	21	7	38
3	Are less academic and emphasise too much on sport	18	27	8
4	Have pupils who play sport outside school for other teams	14	7	23
5	Try harder and the quality of our preparation isn't good enough	11	15	8
6	Players are treated differently by their coach and different coaching methods	7	13	0
7	Players are trained by the SBA	4	0	8

The most popular answer by girls was that the opposition schools were:

1. less academic and could therefore focus more of their attention on sport. This accounted for 27% of the girls replies compared to only 8% of the boys replies. This response was Ranked 3 overall,
2. the second most popular answer for girls was related to motivation, team spirit, attitude etc. (20%) compared to 15% of boys. This was Ranked 1st overall and
3. 15% of the girls reported the fact that other schools try harder and the girls' training is not sufficient when compared to the boys 8%. Ranked as 5th overall.

For boys the main three reasons were that the schools

1. had a good stream of players from the primary school (38%) and Ranked 2 overall
2. had players playing for outside teams (23%) and Ranked 4 and
3. had more motivation and team spirit (Ranked 1).

The basketball players made the real distinction in the ranks with more of the girls reporting Rank 3 and more of the boys reporting Rank 4 than any other group or sub-set.

The players were asked in Secondary 3 if they helped younger pupils and if this was a feature of the SCP, 82% replied that they were doing it in the programme. The question was phrased differently in Sec 4 as it became apparent that it might also be a general feature of the school ECA programme and not just the SCP. This question was re-phrased to ascertain if it was a feature of the SCP or the school ECA programme and a much different picture emerged. Almost half (46%) felt that it was more to do with the school, 40% still thought it was an SCP initiative, 6% thought that it was a combination of both the school and the SCP and 9% reported that they did it by themselves anyway.

Socialisation

In spite of the fact that 97% of SCP players had friends outside the programme (94% boys/100% girls) and 93% reported that they got on well with pupils outside the SCP (all of the table tennis players), three out of five (63%) SCP pupils thought that the NSC pupils (in general) were envious of their privileges (more or less equal for boys and girls). This was felt most by the badminton group (79%) and least by the table tennis group (42%), and another quarter (25%) thought that only some of the NSC pupils were envious (32% girls/15% boys), namely the ones outside their social circle of non-sports class friends. This feeling was quite equal for the boys and the girls. Table 2 describes how the SCP pupils perceive the opinions of the NSC pupils to be:

Table 2: Opinions of NSC Pupils about SCP Pupils

	Total	Girls	Boys
As normal / equal	11%	6%	17%
As privileged	62%	67%	57%
As rude and arrogant	5%	6%	3%
As proud/snobbish and pampered	15%	16%	13%
Quite lowly	2%	6%	0%
As different	2%	0%	3%
Highly regarded	2%	0%	3%

The perception of 'being privileged' was felt equally by the badminton and the basketball players but badminton girls felt it most strongly (75%). 11% reported that the perception of the NSC pupils was that the SCP pupils were proud and snobbish; this was felt quite equally amongst groups but by the badminton boys in particular (27%). Almost three times as many boys as girls thought that they were perceived equally as normal students.

Leisure

Other than sport the majority of SCP pupils were interested in the following non-sports activities as part of their leisure time (refer to Table 3). The totals in each column come to more than 100% as the various activities were usually worded in combinations of activities and the responses are grouped to describe the activity patterns and are not exclusive. The activities are relatively equal between genders apart from the tv/computers, which shows a strong bias in favour of boys.

Table 3: Most Popular Alternative Leisure Activities of SCP Pupils

Rank	Activity	Sample	Girls	Boys
1	Music	44%	43%	46%
2	Tv /computers	32%	9%	55%
3	Reading	22%	24%	20%
4	A mixture of things	16%	25%	7%

The pupils were then asked which was their major out of school leisure interest (refer to Table 4):

Appendix 11a: Task and Ego Questionnaire

TASK AND EGO ORIENTATION IN SPORT

(developed by Joan Duda and John Nicholls)

Directions: Please read each of the statements listed below and indicate how much you personally agree with each statement by circling the appropriate response from the following key.

- Strongly Disagree = SD
- Disagree = D
- Neutral = N
- Agree = A
- Strongly Agree = SA

* When do you feel most successful in sport? In other words, when do you feel a sport activity has gone really well for you?

I feel most successful in sport when.....

1	I'm the only one who can do the play or skill.	SD	D	N	A	SA
2	I learn a new skill and it makes me want to practice more.	SD	D	N	A	SA
3	I can do better than my friends.	SD	D	N	A	SA
4	The others can't do as well as me.	SD	D	N	A	SA
5	I learn something that is fun to do.	SD	D	N	A	SA
6	Others mess up and I don't.	SD	D	N	A	SA
7	I learn a new skill by trying hard.	SD	D	N	A	SA
8	I work really hard.	SD	D	N	A	SA
9	I score the most points/baskets.	SD	D	N	A	SA
10	Something I learn makes me want to go And practice more.	SD	D	N	A	SA
11	I'm the best.	SD	D	N	A	SA
12	A skill I learn really feels right.	SD	D	N	A	SA
13	I do my very best.	SD	D	N	A	SA

Appendix 11b: Task and Ego Orientation Results

This test, designed and validated by Duda using a 5 point Likert scale, was administered to both groups of students (SCP and NSC) to identify the values of the pupils and to see if there was any difference between the groups. It is reported in the literature that children who have higher levels of Task Orientation have a greater likelihood to continue in sport and derive more pleasure from participation.

In the Cathedral sample higher values of Task Orientation compared to Ego orientation were found in all groups, males as well as females, SCP as well as NSC. T-tests for paired samples were used to identify any difference within groups.

Table 1: Task and Ego Orientation Results for SCP and NSC Pupils

Group	n	Ego-orientation		Task-orientation	
		mean	s d	mean	s d
Total Sample	n=121	3.09	± 0.76	4.26	± 0.43
All girls	n=62	3.02	± 0.85	4.24	± 0.46
All boys	n=59	3.16	± 0.66	4.27	± 0.40
NSC	n=69	3.07	± 0.71	4.24	± 0.40
SCP	n=52	3.13	± 0.84	4.27	± 0.47
Girls NSC	n=36	3.01	± 0.73	4.26	± 0.44
Girls SCP	n=26	3.04	± 1.02	4.21	± 0.49
Boys NSC	n=33	3.13	± 0.69	4.23	± 0.38
Boys SCP	n=26	3.21	± 0.62	4.33	± 0.43

Difference was found between Task-orientation and Ego-orientation in the two main groups for girls and boys, indicating that the pupils at Cathedral were more Task than Ego Orientated.

Table 2: T-test Differences between Task and Ego Orientation

NSC	n=69	t = -12.210, df 68, p<0.001
NSC girls	n=36	t = - 8.793, df 35, p<0.001
NSC boys	n=33	t = - 8.469, df 32, p<0.001
SCP	n=52	t = - 8.607, df 51, p<0.001
SCP girls	n=26	t = - 5.348, df 26, p<0.001
SCP boys	n=26	t = - 7.210, df 26, p<0.001

Multiple t-tests on the same data may abuse the alpha value and therefore can be unreliable, unless a Bonferroni adjustment is used. The fact that the significance for all groups was p<0.001 indicates that there is substantial allowance for the values being significant. As all the groups displayed difference between Task and Ego a t-test for independent samples was used to identify any difference between the NSC and SCP pupils in both variables (Task and Ego Orientation). No difference was found between the SCP and NSC or between the girls or boys of both groups. There was no difference either between the girls of the SCP and the boys of the SCP.

It can be seen that the NSC girls had the lowest ego orientation and the SCP boys had the highest ego orientation as well as the highest task orientation. NSC girls were lower ego and higher task than their SCP contemporaries and sports class boys were higher in both ego and task orientation than their NSC contemporaries.

These values may indicate the nature and importance of sport at Cathedral High as being not very critical when compared to academic studies but also may be indicators of the importance of sport in the wider community (has not yet shown real value or opportunity). As the literature suggests that higher task values are important for future participation and enjoyment. The results indicate that the pupils have appropriate values for the future in terms of sports participation. However lower ego involvement scores may indicate that the level of excellence necessary for top-level performance hasn't been achieved, because sport is lacking as a priority within the school as well as within local culture.

Appendix 12a: Purpose of Sport Questionnaire

Directions : Please indicate your level of agreement with each of the statements below by circling the appropriate response from the following key.

Strongly Disagree = SD, Disagree = D, Neutral = N, Agree = A, Strongly Agree = SA

A very important thing sport should do is to.....

1	Teach us to be satisfied when we try our best	SD	D	N	A	SA
2	Teach us how to exercise	SD	D	N	A	SA
3	Teach us to sacrifice pleasure and work to do the right thing	SD	D	N	A	SA
4	Teach us to be aggressive	SD	D	N	A	SA
5	Give us the chance to get a college education	SD	D	N	A	SA
6	Make us feel important	SD	D	N	A	SA
7	Weed out those who don't have what it takes	SD	D	N	A	SA
8	Show us that success means always trying our best	SD	D	N	A	SA
9	Keep people fit	SD	D	N	A	SA
10	Make us loyal	SD	D	N	A	SA
11	Make us mentally tough	SD	D	N	A	SA
12	Help us get into the best colleges	SD	D	N	A	SA
13	Give us the chance to feel like a champion	SD	D	N	A	SA
14	Give us the chance to be friends with popular kids	SD	D	N	A	SA
15	Teach us what is meant by teamwork	SD	D	N	A	SA
16	Show us how we can be physically active all our lives	SD	D	N	A	SA
17	Prepare us for jobs that will help others	SD	D	N	A	SA
18	Teach us the "killer instinct"	SD	D	N	A	SA
19	Prepare us to reach the top in our jobs	SD	D	N	A	SA
20	Help us to keep working in spite of obstacles	SD	D	N	A	SA
21	Help us be popular among our friends	SD	D	N	A	SA
22	Give us the opportunity to have fun	SD	D	N	A	SA
23	Teach us how to keep our bodies healthy	SD	D	N	A	SA
24	Teach us to respect authority	SD	D	N	A	SA
25	Teach us to do what is necessary to be the best around	SD	D	N	A	SA
26	Help us to move into a job which pays good money	SD	D	N	A	SA
27	Teach us to set high standards for our own work	SD	D	N	A	SA
28	Give us status amongst our peers	SD	D	N	A	SA
29	Teach us to work cooperatively with others	SD	D	N	A	SA
30	Teach us to respect our bodies	SD	D	N	A	SA
31	Prepare us to do things we have to, even if we don't want to	SD	D	N	A	SA
32	Help us improve our skills so that we can be the best around	SD	D	N	A	SA
33	Give us a chance to be a professional athlete	SD	D	N	A	SA
34	Give us self-confidence	SD	D	N	A	SA
35	Show us how to be better than most people	SD	D	N	A	SA
36	Teach us to be a good sport	SD	D	N	A	SA
37	Make us responsible law-abiding citizens	SD	D	N	A	SA
38	Teach us to compete with others	SD	D	N	A	SA
39	Give us the skills that will get us top jobs	SD	D	N	A	SA
40	Make us into winners	SD	D	N	A	SA
41	Teach us to follow rules	SD	D	N	A	SA
42	Teach us to follow rules	SD	D	N	A	SA
43	Prepare us for jobs in which we can serve the community	SD	D	N	A	SA
44	Show us how to do what is necessary to win	SD	D	N	A	SA
45	Give us the chance to be rich and famous	SD	D	N	A	SA
46	Prepare us for a life in which "winning is everything"	SD	D	N	A	SA

Appendix 12b: Purpose of Sport Inventory Results

This test was designed to establish any differences in the values of SCP and NSC pupils to the "purpose of sport". There were seven separate characteristics examined on a 5-point Likert scale and these were as follows: 1. to develop mastery/co-operation; 2. to lead to a physically active lifestyle; 3. to become a good citizen; 4. for developing competitiveness; 5. to establish a high status career; 6. for enhancing self esteem and 7. for social status or getting ahead.

The same rank order of characteristics appeared in all of the divisions measured (total sample, all boys, all girls, SCP and NSC) with the exception of the NSC girls who alternated the top two values.

Table 1: Order for "Purpose of Sport" Characteristics

Characteristic	Position non sports girls	Position All other groups
Mastery / Co-operation	2*	1
Physically Active Lifestyle	1*	2
Self-esteem	3	3
Good citizen	4	4
Competitiveness	5	5
High Status Career	6	6
Social status / getting ahead	7	7

(1 was accorded the highest status and 7 the lowest status)

ANOVA tests were performed on the results to find out if there were any significant differences between the sub-groups. There was found to be significant difference ($p \leq 0.05$) between the SCP pupils as a whole and the NSC pupils in respect of competitiveness ($p \leq 0.001$), self esteem ($p \leq 0.001$) and achieving a high status career ($p \leq 0.05$). SCP players felt that sport made them more competitive, gave them higher self-esteem and was a factor in achieving a high status career.

There was also significant difference at the $p \leq 0.001$ level in respect of gender. Boys and girls were significantly different in their values for competition ($p \leq 0.001$), social status ($p \leq 0.01$) and high status career ($p \leq 0.05$).

Boys in general, were more competitive than girls (boys' $M=3.15$, girls' $M=2.74$) in the Sec 3 sample. They also associated sport with having greater social status (boys' $M=2.52$, girls' $M=2.25$) and as a means of achieving a higher status career (boys' $M=2.77$, girls' $M=2.55$).

When the SCP was compared with the NSC by gender there was no significant difference found.

Appendix 13a: Sport Motivation Scale Inventory

Why do you participate in your sport?

Using the scale below, please indicate to what extent each of the following items corresponds to one of the reasons for which you presently participate in your sport.

		Does not Correspond at all	3	4	5	6	7
1	For the pleasure I feel in living exciting experiences.	1	2	3	4	5	6 7
2	For the pleasure it gives me to know more about the sport that I practice.	1	2	3	4	5	6 7
3	I used to have good reasons for doing sport, but now I am asking myself if I should continue doing it.	1	2	3	4	5	6 7
4	For the pleasure of discovering new training techniques.	1	2	3	4	5	6 7
5	I don't know anymore; I have the impression that I am incapable of succeeding in my sport.	1	2	3	4	5	6 7
6	Because it allows me to be well regarded by people I know.	1	2	3	4	5	6 7
7	Because, in my opinion, it is one of the best ways to meet people.	1	2	3	4	5	6 7
8	Because I feel a lot of personal satisfaction while mastering certain difficult training techniques.	1	2	3	4	5	6 7
9	Because it is absolutely necessary to do sport if one wants to be in shape.	1	2	3	4	5	6 7
10	For the prestige of being an athlete.	1	2	3	4	5	6 7
11	Because it is one of the best ways I have chosen to develop other aspects of myself.	1	2	3	4	5	6 7
12	For the pleasure I feel while improving some of my weak points.	1	2	3	4	5	6 7
13	For the excitement I feel when I am really involved in the activity.	1	2	3	4	5	6 7
14	Because I must do sport to feel good about myself.	1	2	3	4	5	6 7
15	For the satisfaction I experience while I am perfecting my abilities.	1	2	3	4	5	6 7
16	Because people around me think it is important to be in shape.	1	2	3	4	5	6 7
17	Because it is a good way to learn lots of things which could be useful to me in other areas of my life.	1	2	3	4	5	6 7
18	For the intense emotions that I feel while I am doing a sport that I like.	1	2	3	4	5	6 7
19	It is not clear to me anymore; I don't really think my place is in sport.	1	2	3	4	5	6 7
20	For the pleasure that I feel while executing certain difficult movements.	1	2	3	4	5	6 7
21	Because I would feel bad if I was not taking time to do it.	1	2	3	4	5	6 7
22	To show others how good I am at my sport.	1	2	3	4	5	6 7
23	For the pleasure that I feel while executing certain difficult movements.	1	2	3	4	5	6 7
24	Because it is one of the best ways to maintain good relationships with my friends.	1	2	3	4	5	6 7
25	Because I like the feeling of being totally immersed in the activity.	1	2	3	4	5	6 7
26	Because I must do sport regularly.	1	2	3	4	5	6 7
27	For the pleasure of discovering new performance strategies.	1	2	3	4	5	6 7
28	I often ask myself; I can't seem to achieve the goals that I set for myself.	1	2	3	4	5	6 7

Appendix 13b: Sport Motivation Scale Results

This test was conducted to find out if the SCP pupils were intrinsically or extrinsically motivated and if there was any difference between the SCP pupils and the NSC pupils in these characteristics.

The SMS developed and modified for English speakers by Pelletier, Fortier, Vallerand, Briere, Tuson and Blais in 1995 was the instrument used to measure this phenomenon. There were seven characteristics identified in the test on a continuum ranging from amotivation through three extrinsic categories to three intrinsic categories which were measured on a 7-point Likert scale (from 1-2 = "Does not correspond at all", 3-5 = "Corresponds moderately" and 6-7 "Corresponds exactly").

The seven categories were: amotivation; external regulation; external introjection; external identification; intrinsic motivation to know; intrinsic motivation towards accomplishment; intrinsic motivation to experience stimulation.

Comparisons between the various sub groups revealed significant differences in a number of cases when GLM multi-variate analysis was used. Significant difference was found [$F=5.5760$ df 1,119, $p=0.0198$] between the SCP and the NSC in terms of amotivation and external means of identification [$F= 6.2393$, df 1,119, $p=0.0139$].

Table 1: Table of Means for SCP and NSC

Motivation Sub-scales	NSC (n=69)		SCP (n=52)	
	Means	S D	Means	S D
Amotivation	3.00	1.24	3.54	1.29
External Regulation	3.03	1.14	3.39	1.16
External Introjection	3.89	1.00	4.24	1.10
External Identification	4.17	1.27	4.72	1.09
Intrinsic Motion to Know	4.74	1.12	4.90	1.19
Intrinsic Motivation to Experience Stimulation	4.82	1.07	5.11	1.03
Intrinsic Motivation towards Accomplishments	5.26	1.07	5.34	1.07

The results show that the SCP pupils value all sub-scales slightly higher than the NSC pupils. It is also interesting to note that Amotivation ranked higher than External Regulation for SCP pupils indicating a higher level of amotivation in the SCP pupils and this was significant. SCP pupils also had a significantly higher value ($p<=0.0139$) for External Identification showing that they perceived that their involvement in sport was an important part of their personal growth and development.

The SCP and NSC were further compared through gender to ascertain where the differences lay. GLM was used and a Tukey HSD post hoc analysis was performed. Univariate F-tests df (1,117) found significant difference at the $p<=0.05$ level for Intrinsic Motivation to Experience Stimulation ($p=0.023$).

The post-hoc Tukey HSD analysis conducted on the means identified the difference amongst the boys sub-group indicating that the NSC boys ($M=4.67$) were significantly different to the SCP boys ($M=5.41$). This indicates a greater need for excitement and stimulation through sport for the SCP boys.

Finally the total sample was analysed by gender to examine any differences between boys and girls at Cathedral High.

Table 2: Mean Values for Boys and Girls in Sport Motivation.

Motivation Sub-scales	Boys Values		Girls Values	
	Mean	SD	Mean	SD
Amotivation	3.13	1.21	3.33	1.35
External Regulation	3.65	1.04	2.74	1.11
External Introjection	4.28	0.93	3.81	1.12
External Identity	4.70	1.10	4.13	1.27
Intrinsic Stimulation	5.00	1.00	4.89	1.12
Intrinsic Motivation to Know	5.03	1.01	4.60	1.24
Intrinsic Motivation towards Accomplishment	5.46	0.85	5.14	1.23

Multi-variate analysis found significant difference ($p=0.002$) between the boys and the girls. Differences were significant in four of the seven sub-sets: External regulation ($p=0.000$), External Identification ($p=0.015$), External Introjection ($p=0.017$) and Intrinsic Motivation to Know ($p=0.023$). Boys gave higher values to all sub-scales with the exception of Amotivation, which indicates a stronger association with sport than the girls and also a stronger external focus of influence.

These results were compared with the results in the original study by Pelletier et al. (1995) when they studied 593 university athletes whose mean age was 19.2 years compared to the mean age at Cathedral of 15.1 years. Pelletier et al found significant difference between male and female athletes in Intrinsic Motivation to Know and Intrinsic Motivation to Accomplish Something where females scored higher than males and in External Regulation where the males scored higher than the females.

The Cathedral results showed that the SCP boys were significantly different from the SCP females. Significant difference was found in the following four sub-scales: External Regulation ($p=0.006$), Intrinsic Motivation for Accomplishment ($p=0.029$), Intrinsic Motivation to Know ($p=0.012$) and Intrinsic Motivation for Stimulation ($p=0.033$). In all of these cases boys had higher scores than girls. This does not compare to any great extent with the Canadian University sample other than in the case of External Regulation. Age, sporting maturity and culture may be part of the reason for this dissimilarity.

Appendix 14a: Harter's Self-esteem Inventory

What I Am Like

SAMPLE SENTENCE

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
(a)	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers like to go to movies in their spare time	BUT	Other teenagers would rather go to sports events	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>							
1.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers feel that they are just as smart as others their age	BUT	Other teenagers aren't so sure and wonder if they are as smart.	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers find it hard to make friends	BUT	For other teenagers it's pretty easy.	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers do very well at all kinds of sports	BUT	Other teenagers don't feel that they are very good when it comes to sports.	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are not happy with the way they look	BUT	Other teenagers are happy with the way they look.	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers usually do the right thing	BUT	Other teenagers often don't do what they know is right.	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are able to make really close friends	BUT	Other teenagers find it hard to make really close friends.	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are often disappointed with themselves	BUT	Other teenagers are pretty pleased with themselves.	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are slow in finishing their school work	BUT	Other teenagers can do their school work more quickly.	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers have a lot of friends	BUT	Other teenagers don't have very many friends.	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers think they could do well at just about any new athletic activity	BUT	Other teenagers are afraid they might not do well at a new athletic activity.	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers wish their body was different	BUT	Other teenagers like their body the way it is.	<input type="checkbox"/>	<input type="checkbox"/>

	Really True for me	Sort of True for me			Sort of True for me	Really True for me	
12.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers often get in trouble for the things they do.	BUT	Others teenagers usually don't do things that get them in trouble.	<input type="checkbox"/>	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers do have a close friend they can share their secrets with	BUT	Other teenagers do not have a really close friend they can share secrets with.	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers don't like the way they are leading their life	BUT	Other teenagers do like the way they are leading their life.	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers do very well at their classwork.	BUT	Other teenagers don't do very well at their classwork.	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are very hard to like.	BUT	Other teenagers are really easy to like.	<input type="checkbox"/>	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers feel they are better than others their age at sports.	BUT	Other teenagers don't feel that they can play as well.	<input type="checkbox"/>	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers wish their physical appearance is different.	BUT	Other teenagers like their physical appearance the way it is.	<input type="checkbox"/>	<input type="checkbox"/>
19.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers feel really good about the way they act.	BUT	Other teenagers don't feel good about the way they often act.	<input type="checkbox"/>	<input type="checkbox"/>
20.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers wish they had a really close friend to share things with.	BUT	Other teenagers do have a close friend to share things with.	<input type="checkbox"/>	<input type="checkbox"/>
21.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are happy with themselves most of the time.	BUT	Other teenagers are often not happy with themselves.	<input type="checkbox"/>	<input type="checkbox"/>
22.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers have trouble figuring out the answers in school.	BUT	Other teenagers almost always can figure out the answers.	<input type="checkbox"/>	<input type="checkbox"/>
23.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers are popular with others their age.	BUT	Other teenagers are not very popular.	<input type="checkbox"/>	<input type="checkbox"/>
24.	<input type="checkbox"/>	<input type="checkbox"/>	Some teenagers can't do well at new outdoor games	BUT	Other teenagers are good at new games right away.	<input type="checkbox"/>	<input type="checkbox"/>

- | | Really
True
for me | Sort of
True
for me | | | | Sort of
True
for me | Really
True
for me |
|-----|--------------------------|---------------------------|---|-----|---|---------------------------|--------------------------|
| 25. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers think that they are good looking. | BUT | Other teenagers think that they are not very good looking. | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers do things they know they shouldn't do. | BUT | Other teenagers hardly ever do things they know they shouldn't do. | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers find it hard to make friends they can really trust. | BUT | Other teenagers are able to make close friends they can really trust. | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers like the kind of person they are. | BUT | Other teenagers often wish they were someone else. | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers feel that they are pretty intelligent. | BUT | Other teenagers question whether they are intelligent. | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers feel that they are socially accepted. | BUT | Other teenagers wished that more people their age accepted them. | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers do not feel that they are very athletic. | BUT | Other teenagers feel that they are very athletic. | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers really like their looks. | BUT | Other teenagers wish they looked different. | <input type="checkbox"/> | <input type="checkbox"/> |
| 33. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers usually act the way they know they are supposed to. | BUT | Other teenagers often don't act the way they are supposed to. | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers don't have a friend that is close enough to share really personal thoughts with. | BUT | Other teenagers do have a close friend that they can share personal thoughts and feelings with. | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. | <input type="checkbox"/> | <input type="checkbox"/> | Some teenagers are very happy being the way they are. | BUT | Other teenagers wish they were different. | <input type="checkbox"/> | <input type="checkbox"/> |

Appendix 14b: Harter's Self-esteem Inventory Results

The inventory for the Self-perception Profile for Adolescents designed and developed by Harter in 1988 was used to measure the self-esteem and global self-worth of the SCP and NSC pupils. There were seven subscales in the inventory that contributed to self-esteem. They were as follows:

scholastic competence: this subscale taps the adolescent's perception of his/her competence or ability within the realm of scholastic performance, e.g. How well he/she is doing at classwork and how smart or intelligent one feels one is.

social acceptance: this subscale taps the degree to which the adolescent is accepted by peers, feels popular, has a lot of friends, and feels that he/she is easy to like.

athletic competence: this subscale taps the adolescent's perceptions of his/her athletic ability and competence at sports, e.g. Feelings that one is good at sports and athletic activities.

physical appearance: this subscale taps the degree to which the adolescent is happy with the way he/she looks, like's one's body, and feels that he/she is good looking.

behavioural conduct: this subscale taps the degree to which one likes the way one behaves, does the right thing, acts the way one is supposed to, and avoids getting into trouble.

close friendship: this subscale taps one's ability to make close friends they can share personal thoughts and secrets with.

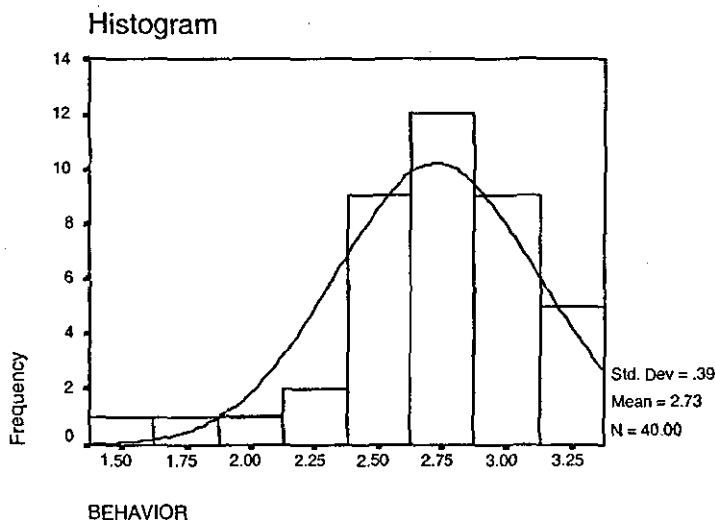
global self-worth: these items tap the extent to which the adolescent likes oneself as a person, is happy the way one is leading one's life, and is generally happy with the way one is. Thus it constitutes a global judgement of one's worth as a person, rather than domain-specific competence of adequacy.

Multivariate Analysis of Variance was used to identify any difference between the two populations of SCP and NSC pupils. 42 pupils in the NSC were compared to 40 pupils in the SCP and the samples were relatively equal with 40 girls and 42 boys.

Normality and Alpha Information.

Only one variable "behaviour" was outside the acceptable limits for normality. The behaviour variable for the SCP had a skewness value of 3.82 and a Kurtosis value of 3.54 that is outside the standard for acceptability (Schwartz). As can be seen from Figure 1 the data is negatively skewed but when one considers the nature of the population (selective and independent), the age of the population (adolescent) and the culture of the population (Singaporean Chinese) this can be considered to be an acceptable or even normal distribution. This was also one of two subscales that Harter had revised because of low reliability in previous tests.

Figure 1: Histogram Showing Skewness of Behaviour Variable



In Harter's experience the Close Friendship subscale was consistently rated the highest and physical appearance the lowest. She also noted gender differences with girls consistently rating their athletic competence, as well as their physical appearance lower than boys. With regards to global self-worth girls also saw themselves as somewhat less adequate than the boys, however girls did see themselves as somewhat more adequate in the area of close friendship (refer to Table 2). The Cathedral High data also confirmed this status (refer to Table 1 below) with close friendship as the highest rated variable and physical appearance the lowest.

Table 1: Sub-scale Means for the Self-Perception Profile of Adolescents Inventory

Rank	Sub-scale	Mean Score	S D
1	Close Friendship	2.8878	± .6722
2	Social Acceptance	2.7878	± .5712
3	Behaviour	2.7512	± .5255
4	Self-worth	2.7122	± .5914
5	Scholastic competence	2.5488	± .5104
6	Athletic competence	2.4732	± .6722
7	Physical appearance	2.3976	± .5808

The results contained in Table 2 below also confirm Harter's findings in relation to gender with Cathedral girls having slightly negative values about their physical appearance and athletic competence but very positive opinions about their abilities to create and maintain close friendship. The boys also displayed a slightly negative opinion about their appearance but not as low as the girls, however, their perceived ability to create strong friendship was much lower than the girls.

Table 2: Gender differences in Athletic Competence, Physical Appearance and Close Friendship

Sub-scale	Girls		Boys	
Athletic competence	2.365	±.7145	2.5762	±.6203
Physical appearance	2.325	±.6464	2.4667	±.5088
Close friendship	3.135	±.7008	2.6524	±.7096

Multivariate analysis found difference between the SCP and NSC groups ($F=822.284, df 7, p<=0.001$) over the 7 variables measured on a four point Likert scale: scholastic competence, social acceptance, athletic competence, physical appearance, behavioural conduct, close friendship and self worth. Mean values greater than 2.5 (up to a maximum of 4.0) can be read as positive and those less than 2.5 as negative (down to a base of 1.0).

Table 3: Differences in Self-Esteem between SCP and NSC Pupils

Variable	NSC		SCP	
Scholastic competence	2.5476	+0.5777	2.5500	+0.4362
Social acceptance	2.6667	+0.5295	2.9150*	+0.5921
Athletic competence	2.1143	+0.6419	2.8500***	+0.4701
Physical appearance	2.3762	+0.5880	2.4200	+0.5797
Behavioural conduct	2.7762	+0.6312	2.7250	+0.3914
Close friendship	2.9524	+0.8425	2.8200	+0.6223
Self worth	2.8143	+0.5453	2.6050	+0.6251

The most positive values were close friendship (2.95) for the NSC pupils which corresponds with Harter's findings and social acceptance for the sports class pupils which differs from Harter's findings, whereas the most negative values expressed were athletic competence for the NSC pupils which is dissimilar to Harter's results and physical appearance for the sports class pupils, which corresponds with Harter's. The physical appearance value for SCP pupils is a little surprising considering the 'body-cult' image of sports' people, however it was still higher than the NSC pupils and therefore may be a cultural, age or school characteristic.

As well as an overall difference between the two groups, two of the variables proved to be different: Athletic Competence ($p < 0.001$) and Social Acceptance ($p = 0.048$). It is perhaps not surprising that the SCP group had a higher opinion of their athletic ability than the NSC (refer to mean values in Table 3 above). The SCP pupils also thought that they were more socially acceptable than did the NSC pupils. However, according to the mean scores, the SCP pupils were slightly more confident about their appearance, slightly less positive about their behaviour and felt slightly less capable of achieving close friendship (these were not significant differences). The SCP also had lower opinions about their global self worth than the NSC pupils had although this difference was again not significant. The results showed a significant correlation between the following factors:

Table 4 : Significant Correlations between Variables

Subscales	Significant Correlations
Athletic competence	Social acceptance**
Behaviour	self worth **, scholastic competence **, physical appearance *
Friendship	social acceptance ** and self worth *
Physical Appearance	self worth **, scholastic competence **, social acceptance * and behaviour *
Scholastic competence	self worth **, behaviour ** and physical appearance **
Self worth	Behaviour **, physical appearance **, scholastic competence ** and friendship *
Social acceptance	Friendship **, athletic competence ** and physical appearance *

$p = 0.01$ **, $p = 0.05$ *

Harter found that physical appearance was consistently highly correlated with self worth and in this study it was modestly correlated ($r = 0.498$), however, behaviour was a slightly stronger contributor to self-esteem ($r = 0.514$). The importance of scholastic competence in contributing to self worth is quite interesting when related to the Singapore context, where students strive for academic accreditation.

Girls SCP v NSC

Difference ($p = 0.002$) was found in the girls responses to self-esteem when comparing the two groups of SCP and NSC. Apart from the overall difference two variables were found to be significant: athletic competence ($p < 0.001$) and friendship ($p = 0.047$). Just as in the total sample for boys and girls the SCP girls ($M = 2.7579 \pm 0.5601$) were more confident about their athletic competence than the NSC girls ($M = 2.0095 \pm 0.6587$). On the other hand NSC girls ($M = 3.3429 \pm 0.6816$) estimated their ability to foster close friendship more highly than the SCP girls ($M = 2.9053 \pm 0.6646$) in spite of the fact that both group means were extremely high (NSC girls mean was the highest score recorded in the complete analysis).

Table 5: Girls Self-esteem Scores

Subscales	NSC		SCP	
	M	S D	M	S D
Athletic Competence	2.0095	0.6587	2.7579*	0.5601
Behaviour	2.800	0.7376	2.6737	0.4012
Friendship	3.3429*	0.6816	2.9053	0.6646
Physical Appearance	2.3524	0.5896	2.2947	0.7192
Scholastic Competence	2.4762	0.5495	2.4211	0.4049
Self Worth	2.8857	0.5816	2.4842	0.7282
Social Acceptance	2.7238	0.5234	3.0842	0.6300

* significant at the $p < 0.05$ level

Surprisingly the self worth of the NSC girls (refer to Table above) was higher than the SCP girls and although not significant ($p = 0.06$) was quite an interesting difference, again debunking the myth that sports make a positive contribution to self-worth, certainly in this Asian setting.

Boys Results SCP v NSC

Multivariate analysis showed that there was significant difference in the boys results ($p=0.008$). Although the overall results were different there was only one variable with statistical significance and that was Athletic Competence ($p<=0.001$) as you would probably imagine. Although there was very little difference in the means for Self worth between the two groups it was surprising that the NSC boys once again had a slightly higher mean score than the SCP boys.

Table 6: Boys Results for Self Esteem (SCP v NSC)

Sub-scales	NSC		SCP	
	Athletic Competence	2.2190	0.6226	2.9333***
Behaviour	2.7524	0.5212	2.7714	0.3862
Friendship	2.5619	0.8188	2.7429	0.5870
Physical Appearance	2.4000	0.6000	2.5333	0.4017
Scholastic Competence	2.6190	0.6096	2.6667	0.4397
Self worth	2.7429	0.5105	2.7143	0.5082
Social Acceptance	2.6095	0.5421	2.7619	0.5239

The SCP boys did see themselves as being more socially acceptable as well as being able to foster closer friendships. The SCP boys attached more relative importance to behaviour than the SCP girls finding it more important than the NSC boys. Again there is no support from these results for the notion that sports help to build self-esteem.

Correlations

The Global self-worth variable was taken to be the best measure of self esteem and the overall analysis found four variables contributing to the pupils self-esteem: Pearson Correlation ranked Behaviour 1st Physical Appearance 2nd, Scholastic Competence 3rd (all significant at $p<=0.001$) and Friendship 4th at $p=0.040$.

The differences in girls and boys results correlating with self-worth can be seen in Table 7 and although the 3 contributing variables are the same, their importance varies according to gender (all Correlations significant at the 0.01 level).

Table 7: Rank Order for Variables Correlated with Global Self Worth by Gender

Rank	Girls	Boys
1	Physical Appearance .529	Scholastic Competence .536
2	Behaviour .523	Behaviour .497
3	Scholastic Competence .435	Physical Appearance .450

In overall terms Athletic Competence correlated only with Social Acceptance ($p=0.003$) and this was equally true for both groups of boys (sport was obviously a vehicle for boys to make friends and for becoming popular). However the girls overall had no other variable which correlated with Athletic Competence at all.

Table 8: Factors Important in Global Self Worth between Groups

Rank	NSC	SCP
1	Physical Appearance** .634	Behaviour** .484
2	Behaviour** .574	Scholastic Competence** .418
3	Scholastic Competence** .544	Physical Appearance** .404
4	Friendship* .371	

** sig. at $p=0.01$, *sig. at $p=0.05$ level

The table shows that all the NSC values are greater than their SCP counterparts and what is interesting is the degree to which the NSC pupils are happy about their appearance compared to the SCP pupils.

Table 9: Comparison of Gender factors for Self Worth in the SCP

Rank	SCP Girls	SCP Boys
1	Behaviour*	Behaviour*
2	Physical Appearance*	

* sig. at $p=0.05$ level

There was a high correlation for both NSC boys and SCP boys between Athletic Competence and Social Acceptance indicating that for boys their ability in sport was important for status in being socially acceptable. This was not true for girls in either the NSC or the SCP. The NSC girls found Friendship the most important variable for Social Acceptance but for the SCP girls there was no meaningful correlation for any variable.

Fitness v Self -worth

A correlation, between the fitness scores from the 20-mst with their global self-worth was examined to find out the strength of any relationship. A modest correlation ($r=0.405$) was found between these variables and there was relative similarity between the boys and the girls who recorded a very low correlation ($r=0.180$ and $r=0.193$ respectively). A low (weak) correlation was found in the NSC ($r=0.286$) but a stronger correlation was found in the SCP scores ($r=0.684$). The SCP boys were almost highly correlated ($r=0.693$) with the NSC girls a little behind ($r=0.588$) (Cohen and Holliday, 1982).

Special Stream

Mr Tan mentioned in an interview in December 1997 that the comparison of self-esteem would be more appropriate between the Special stream students of the SCP and the NSC as these students would be less pressurised by academic studies. Equally the Special Stream SCP students did not contain any of the pupils who were introduced to the school in the first year as special cases with fewer than the allocated PSLE points.

It was not possible to perform a multivariate analysis of the inventory as there were insufficient cases. It was therefore decided to isolate the Global self-worth variable and compare the 22 Special stream pupils from the SCP with an identical number of boys and girls from the NSC group using a non parametric Mann Whitney U (t-test equivalent) to analyse the ordinal data.

The mean score for the NSC pupils was higher (2.86) than that of the SCP pupils (2.48) and this ratio was true also for the girls and the boys.

Table 8: Mean Ranks for Special Stream SCP and NSC Pupils

	NSC	SCP
Whole Class	26.14	18.86
Girls	15.19	11.81
Boys	11.28	7.72

When the scores were analysed mean ranks were tabulated and a z score of -1.8992 showed no significant difference between the two groups at the $p \leq 0.05$ level although the result was very close to this level at $p=0.0575$, indicating that the NSC pupils might possibly have a higher level of Global self worth - a larger sample size would be more discriminating.

The results were broken down further for girls and boys and again no difference was found: Girls ($z=1.1410$, $p=0.2539$) and Boys ($z=1.4445$, $p=0.1486$). It is safe to say in line with the overall findings of the multivariate that there was no difference in global self-worth between SCP and NSC pupils in spite of the higher scores of the NSC pupils.

Appendix 15a: Play-Professional Continuum Inventory

Fairness, Skill and Victory

What do you think is most important in playing a game?

Number the items below from 1 to 3, starting with the one you think is most important (1) and finishing with the one you think is least important (3)

to play as well as you are able

to beat your opponent

to play it fairly

Appendix 15b: Play-Professional Continuum Results

The sample for this instrument took four independent populations at the same point in time, (namely Sec 1, 2, 3 and 4). In 1997 pupils in all years of the SCP were asked to rank three values of sport in relation to Webb's Play-professional Continuum (1969): the value of playing as well as you are able, the value of playing fairly and the value of winning. As the means move along the continuum from 1 - 6 the emphasis changes from play towards more competitive participation (professionalism). A mean of 3.5 would represent the midpoint of this spectrum.

Table 1: Play Professional Continuum Mean Scores

	Overall		Girls		Boys	
	M	SD	M	SD	M	SD
Sec1	2.76	1.15	2.94	1.25	2.56	1.03
Sec2	3.11	1.72	3.36	1.68	2.75	1.77
Sec3	3.11	1.53	2.90	1.45	3.35	1.62
Sec4	3.28	1.13	3.26	1.05	3.29	1.23

As can be seen from the Table 1 above there is an overall increase in competitiveness from Secondary 1 to 4 for the sample as a whole, but was different for the girls and boys respectively. The girls peaked earlier in Secondary 2 than the boys who peaked in Secondary 3. In spite of this trend all of the mean scores fell short of the mid-point indicating that even after four years in the programme the pupils had more of a play disposition than a win at all costs. This change, however, was not significant when measured by Kruskal - Wallis ($n=147$) [$\text{Chi-square}=3.3513$, df 3, $p=0.3406$], and also held true for the boys and girls samples independently as there was no difference in either of their results.

From the mean scores, it can be seen that the girls were more competitive in their attitude than the boys in Secondary 1 & 2 but the boys overtook the girls in Secondary 3 and there was a marginal but insignificant difference in Secondary 4.

The NSC pupils were measured in Secondary 4 only, using the Mann-Whitney U, and were found to be less competitive than the Secondary 4 SC pupils [$z=-2.5408$, $p=0.011$] being closer to the play end of the continuum with a mean score of 2.57 compared to the SCP mean of 3.28. This was equally true for only the boys ($z=-2.1902$, $p=0.0285$) as the girls in the NSC ($M=2.67$) were found to be no different to the SCP girls ($M=3.26$) ($z=-1.3525$, $p=0.1762$). It can safely be stated that the SCP pupils are more competitive (professional) in their attitude to sport than the NSC pupils.

Appendix 16: Family and Parental Influence

Family Involvement

Almost three out of five of the pupils (59%) reported that they were the eldest or only child in the family and this represented the largest segment for this question. The largest number came from basketball (71%) with more boys than girls in badminton as well as basketball, and more girls than boys in table tennis. Overall the sub-set with the largest proportion of 'eldest or only child' was badminton boys (82%). For badminton girls, the largest proportion of these pupils were the 'youngest' in the family (36%). This could be a possible factor, which may have influenced their negative perceptions. Three out of five SCP pupils (60%) had parents who participated in sport themselves (50% boys/70% girls), half of the SCP members had both parents active (similar for boys and girls), 27% had the father only (33% girls/20% boys) involved and in 3% of cases only the mother was involved in physical activity (both girls). Of the remaining 40%, 7% of parents were not involved any more but had been active in sport, and a third (33%) reported that neither parent participated in any form of physical activity (23% girls/43% boys). Almost half the pupils (48%) stated that they received positive support from one or both parents (41% girls/55% boys) while 8% stated that they had no support at all (6% girls/10% boys). Almost one in five (18%) gave an answer that was neither positive nor negative, which inferred that sometimes they were given support and sometimes they weren't. One in five (21%) indicated that support was conditional on good results from their studies and this affected the girls (25%) more than the boys (16%). 6% of the parents of SCP members appeared to be quite neutral in their support (all girls 13%) according to the pupils. More than half (55%) reported that their parents had never met their coach (similar for boys and girls) and a further 13% stated that it was only once or twice at the very most (19% girls/7% boys). When asked what the parents had met the coach about, three quarters (76%) said that it had nothing at all to do with sport (81% girls/71% boys) and 3% had no idea what they had talked about. The majority of parents who had talked about sport were basketball players parents (22%) and mainly of the boys. The girls' parents who were most interested in discussing sport with the respective coaches were the table tennis girls. Just over a third of the players (35%) felt that the father gave the most support (28% girls/42% boys), whereas a quarter (24%) felt that it was the mother (19% girls/29% boys) and another quarter (25%) felt that it was relatively equal (31% girls/19% boys). Almost half of the parents (49%) had been supportive in their children's sport at primary school (31% girls/68% boys) while 20% of parents were not supportive at all (27% girls / 12% boys). Just over half the parents (52%) had never seen their children play their sport (63% girls/42% boys). Only 17% of parents had watched their children with any frequency in inter-school sport (13% girls / 23% boys) and of the remainder it had been maybe only once or twice (27%:25% girls/29% boys). Just over a third (35%) reported that the support was both moral as well as financial (22% girls/48% boys), 30% suggested it was only moral encouragement (about equal for boys and girls) while 10% received only financial support (again similar for boys and girls). 18% reported no support whatsoever (19% girls/16% boys) and two girls (3%) were under pressure to quit sport. Nearly three quarters (69%) had brothers or sisters who also participated in sporting activities (same for boys and girls), more in badminton (89%) with equal numbers of boys and girls. The lowest reported sibling participation came in table tennis (42%).

Parental Influence

43 pupils (38% of the sample) reported that both parents were involved in physical activity outside of work but 53 pupils (47%) indicated that neither parent was involved in any form of physical activity. In 13% of the total sample the father alone was involved but only 2% of the pupils had mother alone involved in physical activity.

Table 3: Parental Involvement in Sport

Frequency	Father	Mother
> Once a week	24 (21%)	12 (11%)
Once a week	16 (15%)	11 (10%)
Once a fortnight	5 (5%)	9 (8%)
Once a month	10 (9%)	7 (7%)
Zero activity	55 (50%)	67 (63%)

A major difference between the parents of SCP pupils and the parents of NSC pupils emerged in that SCP parents (mother + father) were reported as being more involved in physical activity (45%) than the NSC parents (29%). There were fewer parents (mother + father) of SCP pupils (44%) reported to be not involved in any physical activity than NSC parents (52%).

Appendix 17a: Sports Injuries Questionnaire

Sports Injuries

* when answering these questions please only refer to injuries sustained whilst at secondary school

Whilst playing in or training for sport at Cathedral High have you ever been injured?

never seldom frequently

What kind of injuries were sustained ?

slight moderate serious

Which parts of your body were injured and how often?

Body part	No of times injured
Ankle	
Knee	
Back	
Shoulder	
Elbow	
Wrist	
Hand	
Others	

Can you remember approximately how many times you were injured in each year?

Year	Approximate no. of times injured
Sec 1	
Sec 2	
Sec 3	
Sec 4	

Were any of your injuries sustained outside of school ?

Yes No

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Appendix 17b: Sports Injuries Data

The SCP pupils were asked to remember incidences of injuries received at school whilst being part of the SCP. These incidences were recorded by year (Secondary 1, 2, 3 & 4) by severity and by body part injured. In total there were 296 injuries reported by 40 SC pupils (19 girls / 21boys) over the 4 years of the programme, which averages out to 7.4 injuries per person over the duration of the programme. Girls reported more injuries (n= 157) than the Boys (n=139) averaging 8.3 per girl and 6.6 per boy and the Basketball group reported the highest number of injuries (n= 130), averaging 10.8 per person (12.4 per girl and 9.7 per boy). The lowest number of injuries (25) was reported by the Badminton boys, however the Table Tennis group, not surprisingly reported the lowest overall incidence of injury.

Table 1: Sports Class Injuries During the 4 Year Programme

Total	Total	Girls	Boys
Total SC	296	157	139
Badminton	90	65	25
Basketball	130	62	68
Table tennis	76	30	46

The incidence of injury was broken down between each of the four years (Secondary 1, 2, 3 & 4) and it is important to recognise the fact that school competitions / tournaments mainly feature in Secondary 2, 3 and the early part of Secondary 4. In Secondary 1 it is unlikely that the pupils will have enough experience to participate in the school championships. It is also worthy of note that Secondary 4 is in effect only about 4 months maximum as the championships in the respective disciplines have finished by the end of April / beginning of May.

Table 2: Incidence of Injuries by Year

Year	No.
Secondary 1	60
Secondary 2	84
Secondary 3	83
Secondary 4	69

The incidence of injury in Secondary 4 is exceptionally high given the duration of the sporting calendar. However only one serious injury (to a boy) was reported over the whole programme and the sports pupils indicated 45% of the injuries were slight in nature and 48% moderate. Two SCP pupils, one basketball boy and one table tennis girl reported that they received no injuries at all during the programme. Only 18% of the pupils were injured frequently and 78% reported that they were seldom injured. The frequency and severity of these injuries should not cause too much anxiety as they tend to represent slight and infrequent occurrences and are effectively anecdotal in nature.

The ankle was the part of the body, which was injured most frequently representing 31% (92) of the total injuries incurred. Basketball accounted for 51% of these injuries, 39% in badminton and only 10% in table tennis. Girls reported 57% of all ankle injuries. There were 25 knee injuries (19 by boys) and 14 back injuries (= for boys and girls) reported in the study and a total of 46 wrist injuries the majority (57%) of which were reported by girls. Of all injuries reported the incidence of back and knee may give the major cause for concern as these may produce life-long repercussions, particularly as one basketball boy reported 4 separate instances of back injury. However there were only 2 cases of chronic injury reported, one for hamstring and one for knee. Altogether 55% of pupils reported being injured in 'matches and training away from Cathedral High School and the majority of these (64%) were boys.

Appendix 18 Interview Formats: Coaches

October 1996

What is your impression of the value of the fitness test (20mst) conducted on the sports class students? Are the test results useful to you in any way? In previous years or this year, what have you noticed about the students behaviour in the test? Has it changed over the three years? Is it what you would expect? Is there any particular highlight that you can think of or any concern that you have witnessed? What did you think specifically about the first attempt this year? Were you surprised at all? How would you interpret their response? Is the trend in their fitness acceptable or alarming? Were the results of the second test up to your expectations? Would you expect your players to score higher than they did last year? Why? Have you noticed any change in any of the players attitudes this year? Have any of your methods or expectations changed or been modified this year?

How would you describe the development of your sports class players over the three years so far? Has the overall programme changed at all from when it started in content or design? Have the results in any way influenced what you will do in preparation for next years competitions?

October 1997 (end of programme)

Looking back over the past 4 years of the Sports Class programme, what are your thoughts and feelings about the programme in general (for boys and girls, for badminton, basketball and table tennis)? What would you describe as the highs and lows of the Sports Class programme in general? There appears to me to be a considerable distinction between groups (bad. bask. & tt) would the SC be strengthened and would it be helpful if there was an overall co-ordinator, pulling things together, co-ordinating strategies, developing policy?

Does the Sports Class concept favour the boys in any way? Are there any special difficulties with the girls? With specific reference to your own sport how would you describe its success? For boys and for girls and overall? Has the Sports Class concept been fair to all the pupils who joined it, but were transferred out or remained in but didn't play for the school?

How will the new organisation of the Sports Class help the pupils? Will the smaller numbers affect your success in the future? How well is the new 'one class' organisation working out? Has it succeeded in erasing the emotional discharge at the end of Secondary 3?

Describe your thoughts and feelings about the 'national' championship results 1) for boys, 2) for girls. Any thoughts about the fitness levels recorded by your players in the 20-mst? Does fitness play a role in the success of your teams, and if so how much? Is it the same for boys and girls? Are Sports Class kids any different today (1997) than they were in 1994? Apart from yourself, how many other coaches are there in your sport? Are they local, SBA or NSA, or foreign? How do the pupils respond to these outside coaches? Have your training, coaching methods been revised over the past 4 years. Has anything occurred in the SCP which has made you rethink the process, methods or management of your team?

Where do you see the SCP at Cathedral going in the near future?

Finally, in your estimation, is the SCP concept working out? Has it been successful? Will it continue?

Appendix 19: NSC Physical Activity Survey

A survey was given to the NSC pupils to identify their level of participation in recreational physical activity outside of school. It was interesting to note that the mean number of physical activities increased as the pupils got older (refer to Table 1):

Table 1: Non-Sports Class Participation Levels and Frequencies

Year	No. of activities per week	Frequency Per month
Secondary 1	1.15 ± 0.9890	4.9
Secondary 2	1.15 ± 1.0383	5.1
Secondary 3	1.34 ± 1.0632	6.2
Secondary 4	1.39 ± 1.1593	6.8

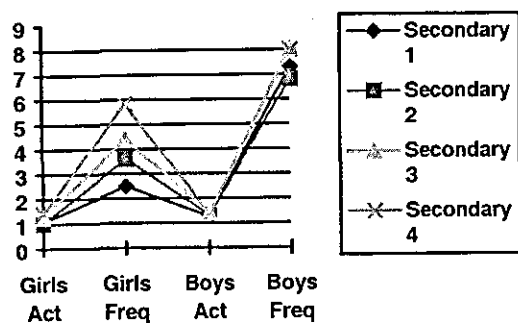
The interesting feature of this summary is the increase in the variety of activity as the pupils get older as well as an increase in frequency. Although the data was collected in the first half of the year before the 'mugging' for O levels begins in earnest it could have been assumed that there would have been a decrease in both the number and frequency of participation as the pupils got older. Although the boys fluctuated a little, the same picture emerged in the girls recreational habits (refer to Table 2 Below)

Table 2: Activity participation Levels and Frequency per Month (n= 41)

Year	Girls Activities (n=21)	Girls Frequency	Boys Activities (n=20)	Boys Frequency
Secondary 1	1.05	2.5	1.25	7.3
Secondary 2	1.0	3.6	1.30	6.8
Secondary 3	1.28	4.4	1.40	8.1
Secondary 4	1.42	5.8	1.35	8.0

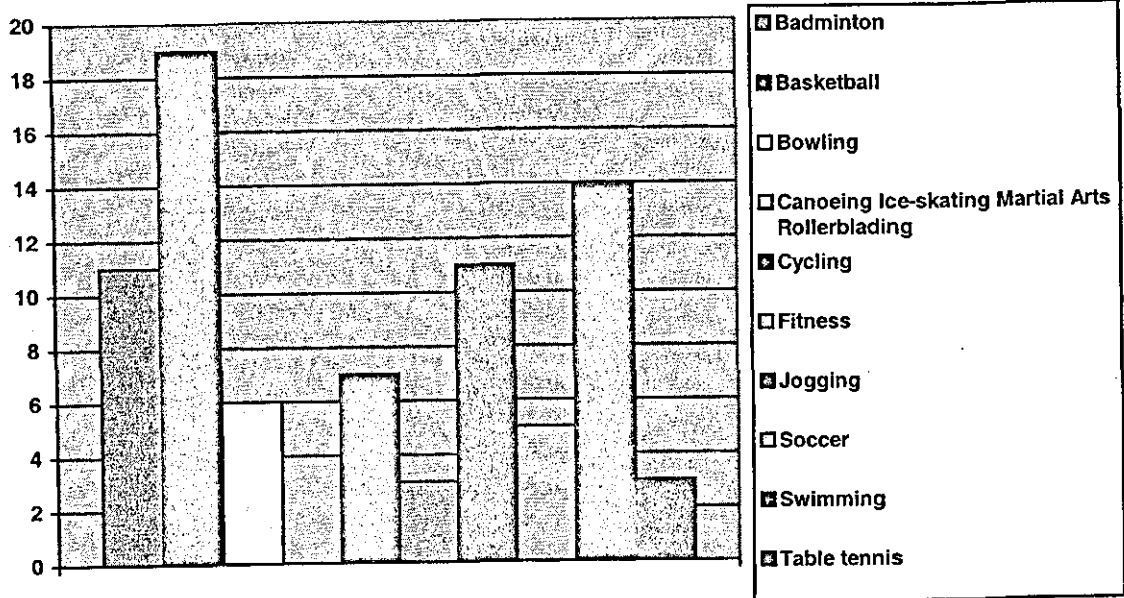
Table 2 shows increased rates of participation from Sec 2 as well as increased frequency for girls with the boys increasing up to and including Sec 3 and then tailing off very slightly in Sec 4. The girls show that their interest is becoming slightly more diverse and more frequent as they get older whilst the boys in Secondary 4 show a minor lapse in variety.

Figure 1: Activity Levels and Frequencies for Boys and Girls



Looking at the results as a whole for boys and girls it can be seen that most of the pupils have one regular activity whilst only a few will have two or more. The boys consistently participate more frequently in physical activity than the girls.

A breakdown in their interests is shown below



The most popular activities in Rank Order were:

- 1 Basketball 19
- 2 Swimming 14
- 3= Badminton 11
- 3= Jogging 11
- 5 Cycling 7

