



Government of South Australia

Office for Recreation and Sport

A Profile of Youth Sport in South Australia

**Behaviours and attitudes of
primary and secondary students
in South Australia**

October 2007

A Profile of Youth Sport in South Australia

EXECUTIVE SUMMARY

This study is based on a joint project between the South Australian Office for Recreation and Sport (ORS) and the University of South Australia (Uni SA) Physical Education, Exercise and Sport Studies (PEESS) unit. The collaboration resulted in the compilation of a large data set of information relating to physical activity, sport and recreation habits, attitudes and perceptions of 3,306 South Australian school students, as reported by the students themselves. In addition, the parents of 1,809 student respondents were surveyed to assess potential environmental correlates of physical activity including perceptions of safety, transport and access to facilities and opportunities. The data was collected in 2005.

The ORS analysis focussed on the prevalence of various physical activities (prompted) and regular organised sport (unprompted), the type of organisation (school or club), perceived barriers to physical activity as well as sports and physical activities students indicated they would like to play more often. Students' responses were segmented by gender, location (urban and rural), and school year level (upper primary and lower secondary).

The Uni SA analysis was designed to test the predictive ability of the youth physical activity promotion (YPAP) model. Indices for reinforcing, pre-disposing and enabling factors were constructed from child and parent responses and these were correlated to the reported physical activity behaviours of students. In addition to gender and location variation UniSA investigated the socio-economic impact on physical activity behaviours.

The ORS analysis found the most popular physical activities undertaken in the previous seven days were jogging and walking with walking being the most frequently undertaken activity. Different preferences were noted between gender and for urban and rural youth, but the most notable difference was found between primary and secondary students. Secondary students had lower participation rates for almost all activities in the preceding seven days.

Of the students surveyed, 91% played at least one organised sport regularly in the previous 12 months. Over 10,290 sports were nominated in total, equating to an average of 3.3 regular organised sports per participant. There were 8 sports nominated by more than 10% of students. The top three sports included netball, which was the most popular sport for girls, Australian football - the most popular sport for boys, and basketball, which had significant penetration for both girls and boys.

Over three quarters of surveyed students regularly participated in a sport organised by a club, including more than 90% of secondary students living in rural areas. While 63% of students played a sport facilitated by their school, it was most prevalent in the urban setting and for primary students. In addition 44% of surveyed students participated in regular organised sport in "other" environments (non club, non-school).

Students reported an overwhelming desire to participate in sports and physical activities with friends. 56% would *try a new sport* if they had a friend to go with and 48% indicated they would *play more sports*

A Profile of Youth Sport in South Australia

if their friends were involved. Whilst rural students reported transport and convenience factors frequently, most other barriers were more prevalent in the urban environment. Secondary girls were the group most likely to perceive barriers inhibiting their participation in sport and physical activities. Seven different barriers were nominated by more than 30% of this demographic group.

Soccer, basketball, tennis and Australian football were sports most often mentioned by students as those they would like to play (or play more). This finding correlates with the most prevalent barriers relating to friendship and provides a self-fulfilling advantage for mass participation sports.

The Uni SA analysis found parental reinforcement (encouragement, support and role-modelling) was the influence most likely to predict positive physical activity behaviours regardless of gender, location or SES status. A good attitude, positive beliefs and enjoyment of physical activities, represented by the “Is it worth it?” index was also strongly linked to physical activity across most sub-groups. Whilst many interventions focus on skill development via increasing physical activity and building self efficacy (represented by the “Am I able?” index) the Uni SA study suggests that reinforcement and developing positive attitudes may be more valuable. Of the three “enabling” factors investigated, transport was found to have a significant link with participation in rural areas and safety was correlated with girls participation.

A Profile of Youth Sport in South Australia

CONTENTS

1.	Introduction	5
2.	Research Findings	8
2.1	Getting active – who’s doing what? <i>General physical activity behaviours</i>	8
2.2	Who’s doing it the most? <i>Overall physical activity</i>	11
2.3	Tele-tubbies – how much TV is too much? <i>Screen time summary</i>	11
2.4	A sporting feast? <i>Regular organised sport activities</i>	12
2.5	Barriers or bluffing? <i>Barriers to sport participation</i>	16
2.6	Sports – untapped demand <i>Sports students wanted to play</i>	18
3.	Psycho social correlates of physical activity	19
3.1	Reinforcing Factors	20
3.2	Predisposing Factors	20
3.3	Enabling Factors	21

SUMMARY OF FIGURES

Figure 1:	Frequency of Participation in Common Physical Activities
Figure 2:	Overall Physical Activity in Spare Time
Figure 3:	Screen Time on a Typical School Day
Figure 4:	Sport Environments
Figure 5:	Play Regular Club Sport
Figure 6:	Top 12 Club Based Sport
Figure 7:	Play Regular School Sport
Figure 8:	Top 12 School Based Sports
Figure 9:	Perceived Barriers to Sport and Physical Activity Participation
Figure 10:	Activities Students Would Like to Try or Do More Often
Figure 11:	Youth Physical Activity Model (YPAP)

SUMMARY OF TABLES

Table 1:	Participation Rate in Common Physical Activities
Table 2:	Frequency of Physical Activity in Free Time (cumulative)
Table 3:	Typical School Day Screen Time (cumulative)
Table 4a:	Rate of Regular Participation in Organised Sport (unprompted)
Table 4b:	Rate of Regular Participation in Organised Sport (unprompted)
Table 5:	Participation Rate by Sport Environment
Table 6:	Percent of Respondents Agreeing with Barrier
Table 7:	Summary of PEES Analysis Correlations between variables in the Youth Physical Activity Model

A Profile of Youth Sport in South Australia

1. INTRODUCTION

Background

The Office for Recreation and Sport (ORS) takes an active interest in the physical activity, sport and recreation habits of all South Australians. Our vision to build better communities through active recreation and sport guides our work in developing facilities, supporting sport associations and local clubs, together with interagency work on open space and recreation trails.

The ORS subscribes to a national Exercise Recreation and Sport Survey, (ERASS) researching the sport and recreation habits of SA adults. In addition the Australian Bureau of Statistics (ABS) publishes adult participation data every 4 years and children's data every 3 years. These research publications form a backdrop of evidence to guide our work, in particular resource allocation.

Collecting information from children is difficult. The ABS collects data relating to children by way of an adult proxy survey and focuses on organised sport undertaken outside of school hours.

The University of South Australia (Uni SA) through its Physical Education, Exercise and Sport Studies unit (PEESS) has a long history of investigating the fitness and activity interests of school aged children in South Australia (SA). In 2002 PEESS engaged ORS in a dialogue of mutual interest.

The collaboration between ORS and Uni SA PEESS resulted in the compilation of a large data set of information relating to physical activity, sport and recreation habits, attitudes and perceptions of South Australian children, as reported by the children themselves.

The questionnaire was developed to meet the needs of both parties. A series of 44 psycho-social questions were posed to gain an understanding of the factors influencing physical activity behaviours of South Australian children. Questions then probed for the physical activity and sport participation behaviours and attitudes of students both in and outside of the school environment. The sample included urban and rural areas, primary and secondary students, areas with high and low socio-economic index scores and boys and girls.

This report documents the analysis of this data undertaken by the ORS. It describes the physical activity behaviours and recreation and sport choices of children including gender differences, differences observed between primary and secondary students and variations between urban and rural areas.

The report also presents a summary of the analysis and findings undertaken by PEESS. This focussed on describing the reinforcing, pre-disposing and enabling factors and how these are correlated to the physical activity behaviours of South Australian youth.

A Profile of Youth Sport in South Australia

Methodology

Data collection and data entry was managed by PEES. The resulting Microsoft Excel spreadsheet, including the records of 3,306 South Australian students was delivered to ORS for analysis. The methodology employed by PEES is summarised below.

The study was a cross-sectional survey of children and adolescents enrolled in South Australian primary and secondary schools. A stratified random sampling technique based on the school card register (as a proxy measure of Socio-Economic Status (SES)) was used to invite 70 schools to participate in the study. Of these, 52 schools (74%) agreed to participate in the study..

Within participating schools, 8,913 children in years 5 to 10 were eligible to participate in the study. Consent to participate was sought from parents and actual consent numbers were 3,348ⁱ children (36.4%). A higher response rate was obtained from students in primary schools (42.4%) compared with high schools (26.5%). Ethical approval was obtained from both Uni SA and SA DECS and parental consent was obtained for each respondent.

Data was collected from August to October 2005.

In addition, PEES distributed a questionnaire to the participating child's parent/caregiver to complete. This questionnaire assessed potential environmental correlates of physical activity including perceptions of safety, transport issues and access to facilities and opportunities. PEES linked the parent and child responses to investigate the correlates of physical activity. A final sample of 1809 was realised for this element of the research.

The sampling methodology was designed to generate a representative sample of South Australian youth. However, given the varying acceptance rates among schools and children within schools, the final sample cannot be said to be entirely representative. Though typical of this type of study, this outcome reduces the generalisability of the results.

Applying The Research

It is envisaged the findings presented in this report will be of interest to many stakeholders with an interest in increasing the physical activity of South Australian youth.

Sport administrators can use the results to gauge their competitive position in the marketplace, identify demographic groups to target and gain an understanding of the barriers perceived by potential participants.

Urban planners and local councils can use the data to understand the preferences of youth and develop appropriate open spaces and collaborate with sport and leisure providers to ensure ample opportunities for maximising participation.

A Profile of Youth Sport in South Australia

Educators can use the information to improve understanding of the predictors of positive physical activity behaviours in South Australian youth and plan physical activity interventions.

It is also hoped the agencies across government will incorporate the information in education and training modules around physical activity and use the findings to inform policy direction.

A Profile of Youth Sport in South Australia

2. RESEARCH FINDINGS

2.1 Getting Active – Who’s Doing What?

General physical activity behaviours (PROMPTED)

Participation

To gauge general behaviours students were presented with a list of 22 common physical activities including typical school-yard activities like chasey and skipping, traditional sports such as netball and Australian football and neighbourhood activities like cycling and skateboarding. They were asked if they had done any of the activities in the last 7 days and, how frequently. In this regard it is important to note that these responses were prompted.

Of the 22 activities, jogging (84%) and walking (82%) were most popular activities for both males and females and primary and secondary students. Furthermore, almost 1/3 of youths walked more than 5x per week (30%), making it the most frequently pursued activity.

Unstructured activities nominated by more than one third of students included cycling (57%), chasey (49%), dance (41%) and skipping (36%).

Popular traditional sport activities included Australian football (54%), basketball (49%), soccer (47%) and cricket (33%). These findings have been summarised in Figure 1. The rate of participation in these common activities is presented by gender, location and year level in Table 1.

Gender Differences

Overall, boys and girls participation rates were similar for jogging, swimming and badminton. Girls' had notably higher participation rates for walking, chasey, dance, skipping, netball, volleyball and aerobics. A greater proportion of boys than girls undertook the other 12 activities.

Urban vs Rural

The traditional “sports” of cricket and netball were noticeably more popular in rural locations as was cycling. Other sports and activities where there were found to have noticeable differences and were favoured by rural participants included football, jogging, baseball/softball and hockey.

Urban youth were found to have higher participation rates in soccer, volleyball, swimming, aerobics and badminton.

Primary vs Secondary

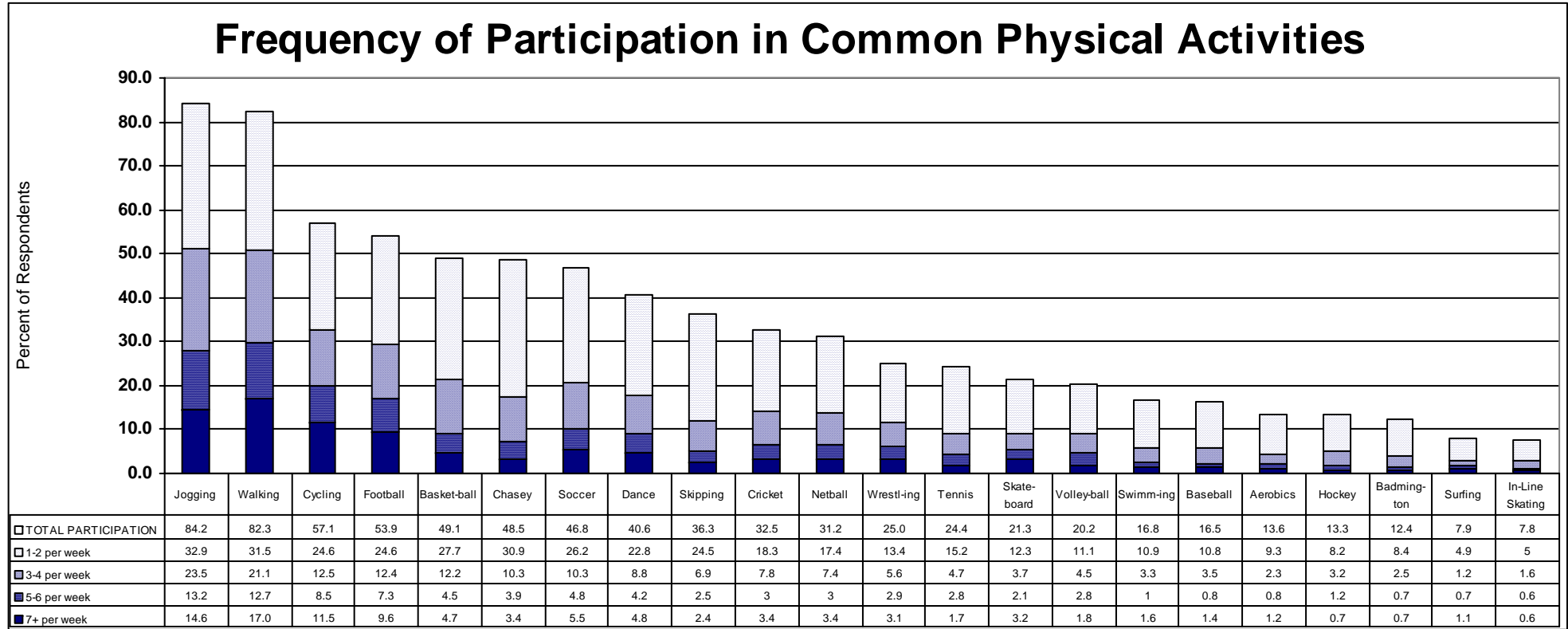
Olds et al suggests that “Puberty appears to be a watershed. Pre-pubertal children can be coaxed into activity; post-pubertal children need to be coerced.”ⁱⁱ The participation rates of various activities reported in this study support this notion.

A Profile of Youth Sport in South Australia

The findings presented in Table 1 show lower participation rates for secondary students compared to primary school students for almost all activities. Volleyball, badminton and surfing were exceptions to this trend for both boys and girls, highlighting the significance of the high school PE curriculum (Volleyball and badminton are both registered subjects in the SA certificate of education). Other increases in participation rates for some activities were noted for specific sub-groups.

A Profile of Youth Sport in South Australia

Figure 1: Frequency of Participation in Common Physical Activities



A Profile of Youth Sport in South Australia

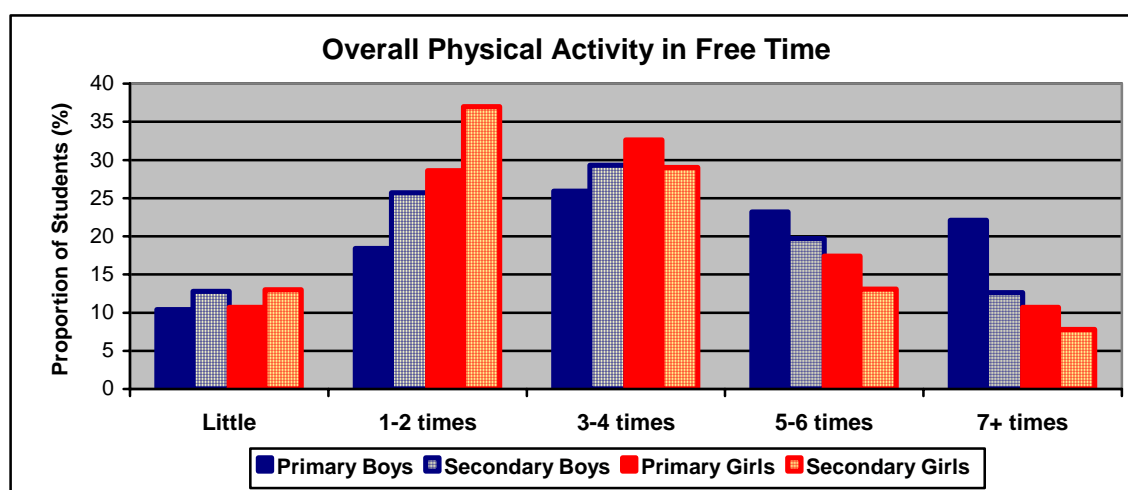
2.2 Who's Doing It The Most?

Overall physical activity (SELF REPORT)

Students were prompted for degree of exertion in PE classes, at lunchtime, after-school, evening and weekend activities. Following this series of questions they were asked to nominate a statement that best described their level of physical activity over the last 7 days.

Figure 2 presents the findings and shows that primary boys are the most active, with over 20% of these boys nominating "I very often did physical things in my free time (7 or more times last week)." At the other end of the spectrum, secondary girls were the least likely to be active each day, with only 8% of secondary girls reporting daily physical activity. Table 2 presents the overall physical activity prevalence by specific sub-groups.

Figure 2: Overall Physical Activity in Spare Time



2.3 Tele-Tubbies – How Much TV Is Too Much?

Screen time (including TV, videos/DVDs and computers)

It has been proposed that time for physical activity is inversely related to screen timeⁱⁱⁱ. That is, when children show a preference for more time in front of a screen, they have less time available for being active.

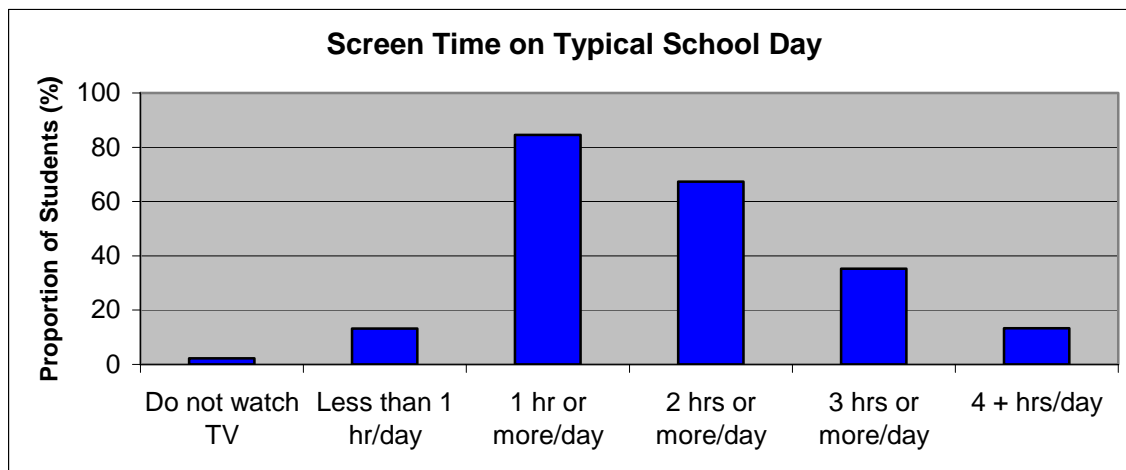
Department of Health and Ageing physical activity recommendations for children and young people are that children need at least 60 minutes (and up to several hours) of moderate to vigorous physical activity every day and children should not spend more than two hours a day using electronic media for entertainment.

Students were prompted for screen time, including TV, videos/DVD's and computers, on a typical school day. Table 3 presents these findings by specific sub-groups. The results are summarised below

A Profile of Youth Sport in South Australia

in Figure 3 and show that few children (13%) restrict their TV time to less than 1 hour per day. Two thirds (67%) of children watch 2 hours or more per day, and over one third (35%) regularly accumulate over 3 hours of screen time in a day.

Figure 3: Screen Time on a Typical School Day



2.4 A Sporting Feast?

Regular organised sport activities (UNPROMPTED)

Of particular interest to the ORS was the students' unprompted response to the sports they had played regularly in the past 12 months and whether the sport was played for a club, school, both (club and school) or other organisation. Prior to analysis, the raw responses were coded into the same framework as that used for the National Exercise Recreation and Sport Survey^{iv}.

Overall Sport Participation

Of the 3,306 students responding to the survey, 91% nominated that they regularly played at least one sport in the preceding 12-month period. Overall, there were 10,290 sports nominated, equating to an average of 3.3 sports per participant.

The 8 sports listed below were played regularly by more than 10% of surveyed students in the previous 12-month period:

Sports Played by more than 10% of Students			
Netball	Basketball	Australian Football	Swimming
Soccer	Tennis	Cricket	Dancing

A Profile of Youth Sport in South Australia

Table 4a lists 15 sports played by more than 3% of students and breaks down participation by gender, location and year level.

Netball was the most popular sport for girls across all sub-groups. Netball provided participation opportunities for 61% of the girls surveyed. The participation rate peaked at 85% for rural secondary girls.

Basketball had major penetration across all sub-groups, however the participation rate dropped in urban areas for both male and female secondary students.

Australian Football was the most popular sport for boys, with over half (56%) of boys claiming to play regularly. Whilst the rate of participation among urban boys decreased in secondary school (52% down to 35%), in rural areas the participation rate increased from 76% for primary boys to 86% for secondary boys.

Swimming participation was more prevalent for girls (31%) than boys (18%) and for all sub-groups the participation rate diminished in secondary school.

Soccer participation was especially strong in the urban areas. For the urban secondary boys surveyed, participation in soccer was second behind Australian football (35% vs 33%) and for urban secondary girls it was third behind netball and volleyball (49% vs 30% vs 23%). However, whilst one quarter of primary boys in rural locations played soccer regularly, less than 1% of rural secondary boys in the study played organised soccer regularly.

Tennis participation was evenly spread across girls and boys and tended to be more popular for secondary students, in particular for boys.

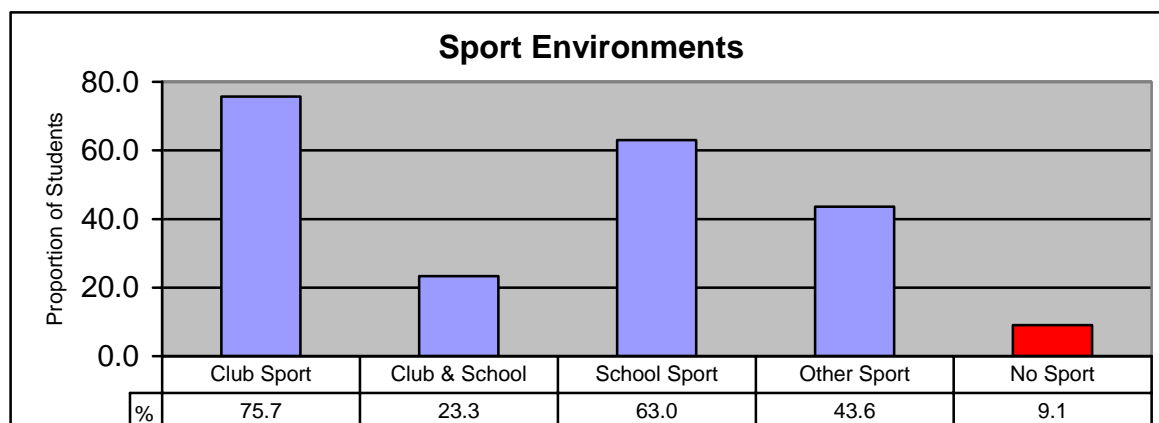
Table 4b presents the same information for sports with fewer overall participants, but noticeable penetration for specific sub-groups. (For example motor sports were nominated by 10% of rural male secondary students, but only by 2% overall.)

Sport Organisation

The sport environment is heavily reliant on community based sporting clubs. Figure 4, shows that almost three quarters (76%) of students played a sport that was organised by a club. Almost two thirds (63%) played a sport facilitated through the school system. Both these figures include the 23% of students who were passionate enough about a chosen sport to play for both a club and school. A further 44% of students participated regularly in a sport that was not organised through a club or school. Table 5 presents this information by population sub-group.

A Profile of Youth Sport in South Australia

Figure 4: Sport Environments



Traditional Club Sport

Anecdotally, the community sports club is at the heart of rural communities and the findings of this study support this notion. Over 90% of surveyed secondary students in rural areas are involved in club sport. Students in the urban area also had a very high rate of club based sport participation (67% - 73%), however the participation rate in sports clubs was higher in rural areas for all sub-groups.

The findings (see Figure 5) also indicate that in urban areas, the rate of club participation is relatively similar for primary and secondary students. However, in rural areas, the move to secondary school correlates with increased rate of participation in sporting clubs.

Figure 5: Play Regular Club Sport

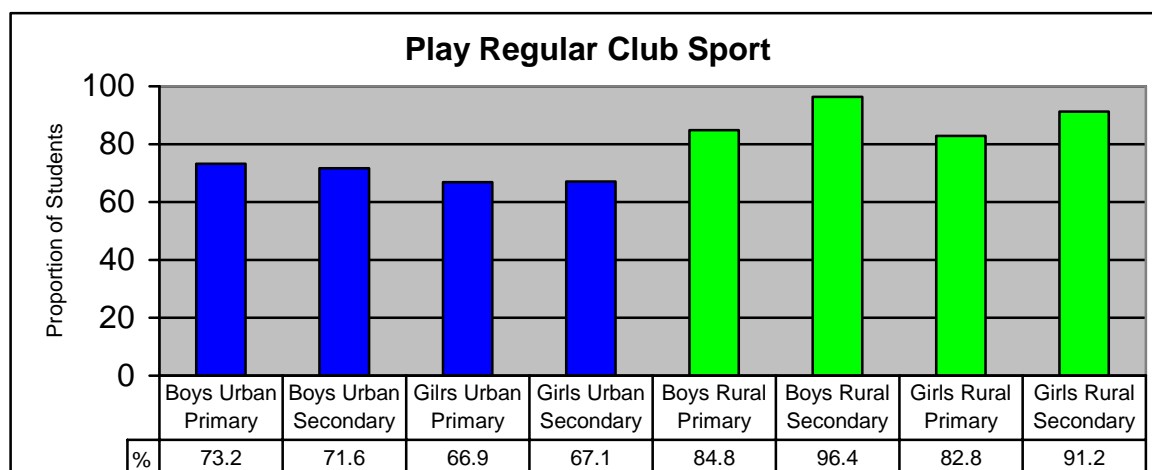


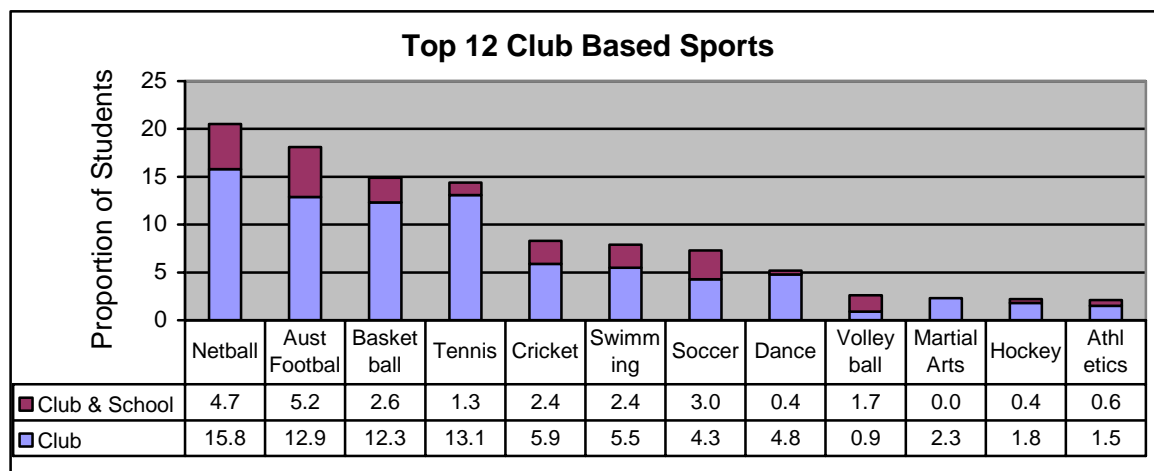
Figure 6 shows the top 12 club-based sports and includes students who played for both a club and their school. The results show that community netball clubs provide participation opportunities for 21% of students surveyed, Australian Football is close second (18%), followed by basketball (15%).

Club volleyball players were the most likely to also play for their school with almost two thirds of club volleyballers also representing their school (65%). Club netballers, footballers, cricketers and soccer

A Profile of Youth Sport in South Australia

players also featured strongly in the school environment. Conversely, most dancers, martial artists and hockey players were faithful to their club, probably due to few schools offering these choices.

Figure 6: Top 12 Club Based Sport



School Sport

School sport plays an important part of the sporting landscape with participation ranging from 75% for urban primary school boys to 44% for rural secondary school boys.

As opposed to club participation, school sport was more popular amongst students in urban areas. This was true for all sub-groups. Figure 7 also shows that for most sub-groups (excluding urban girls), the participation rate was lower in secondary school than in primary school.

Figure 7: Play Regular School Sport

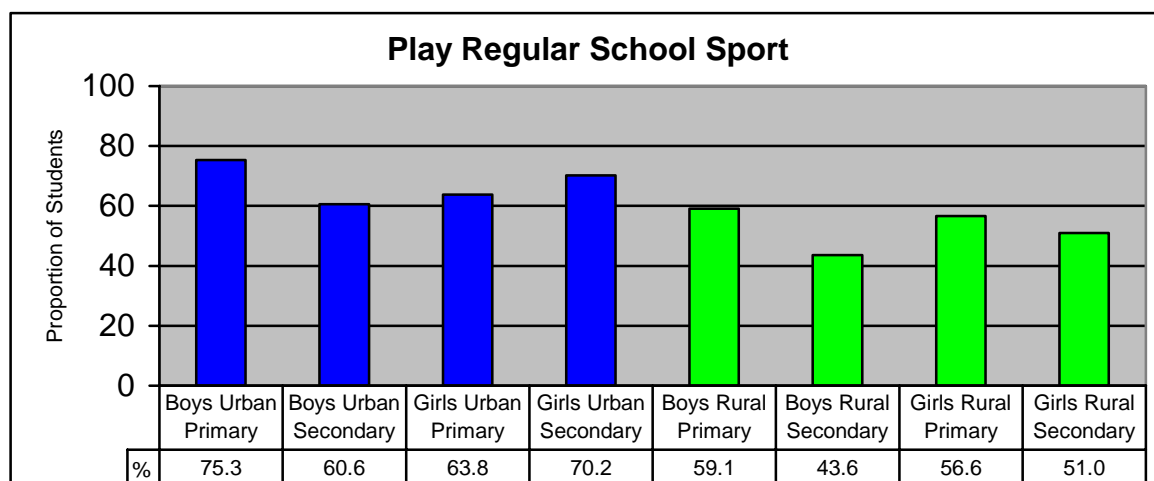
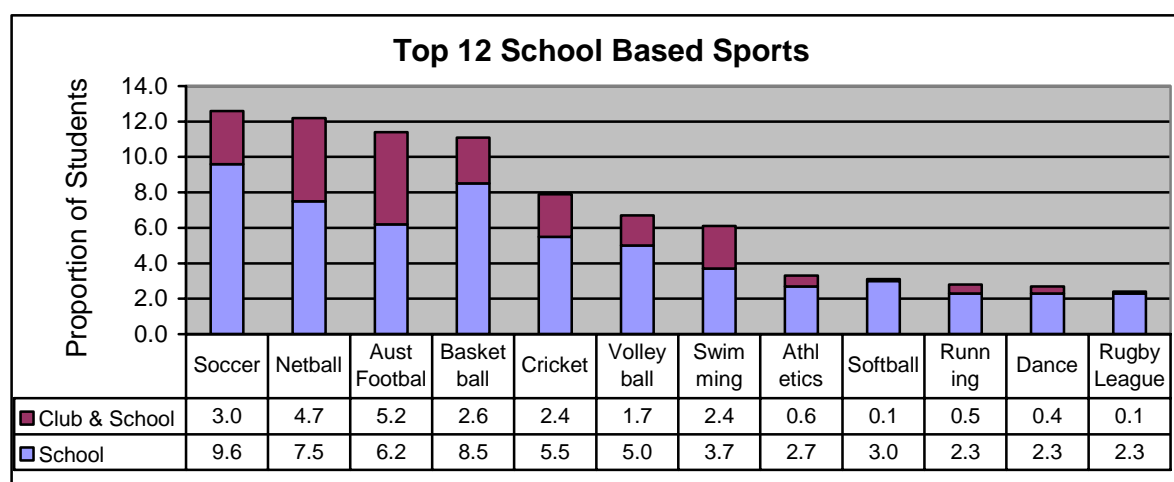


Figure 8 shows the top 12 school-based sports and includes those students who played solely at school and those that played for school and a club. The results show that 13% of students surveyed played

A Profile of Youth Sport in South Australia

school soccer on a regular basis, 12% played school netball, 11% played school football (Australian) and 11% played for a school basketball team.

Figure 8: Top 12 School Based Sports



Other Sport Environments

Students could also nominate sports that they regularly played in the past 12 months in “other” environments (non-club and non-school). The top 3 sports reported were swimming (11%), basketball (6%) and cycling (5.9%).

2.5 Barriers Or Bluffing?

Barriers to sport participation (PROMPTED)

Students were presented with a list of 17 commonly mentioned barriers and asked to nominate if they were relevant in limiting some or all of their desired physical activities. Table 6 summarises the findings by population sub-group. Figure 9 illustrates the findings overall.

Overall, and for each population sub-group the most prevalent barriers to physical activity as perceived by students themselves were related to socialisation. Over half (56%) indicated they would try new sports if their friends were also interested and 48% would play more sport if their friends were involved.

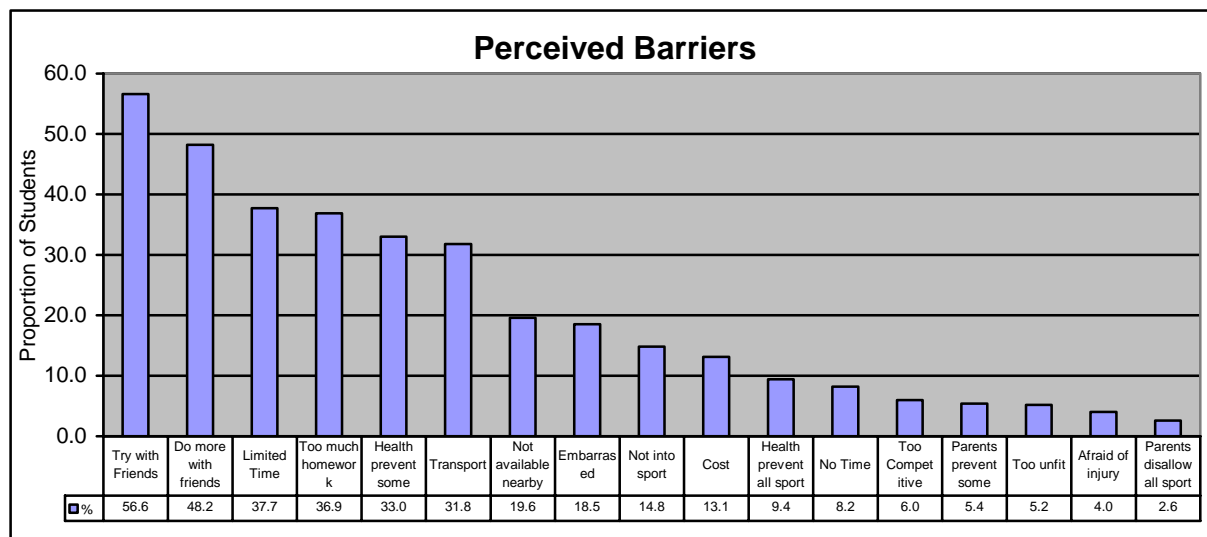
Adults frequently claim “lack of time” as a key barrier to participation^v, and it would appear students perceive themselves living in a similarly time-poor environment where physical activity is not considered a high priority. Two-fifths (38%) of students claimed they don’t have enough time to play as much sport as they would like, 37% claimed homework responsibilities limited their involvement and a further 8% said they had no time for sport.

Health or injury prevented participation in *some* sports for one third (33%) of the survey respondents and a further 9% reported health or injury restricted participation in *all* sports.

A Profile of Youth Sport in South Australia

Aversion to competition (6%) was not a common barrier, injury (4%) didn't deter many and parents were not commonly perceived as inhibitors. (5% perceive parents restrict some sports and a further 3% perceive their parents restrict all participation).

Figure 9: Perceived Barriers to Sport and Physical Activity Participation



Gender

In an attempt to understand the way girls and boys perceive barriers, the prevalence of each barrier was measured by gender. In every case where there was found to be a noticeable difference, the barrier was more prevalent for girls than boys. These barriers included “would play more if friends involved”, “limited time”, “transport problems”, “feel embarrassed” (24% to 13%), “not into sport”, “cost” and “too competitive”. For all other barriers there was little difference between boys and girls.

Urban vs Rural

The findings were also screened for differences between urban and rural students. Not surprisingly, rural students reported “transport” (35%) and “facilities not available near home” (23%) as being more of a barrier than did urban students (30% and 18% respectively). These barriers were the only ones that were noticeably more prevalent for rural than urban students. Conversely, urban students reported six barriers including; “would play more if friends involved”, “limited time”, “too much homework”, “not into sport”, “cost” and “no time to play any sport”, more frequently than rural students.

In summary, girls perceived there to be more barriers than boys and secondary students more barriers than those in primary school. Overall, secondary school girls were the population sub-group most likely to perceive barriers, with seven different barriers nominated by more than 30% of secondary school girls.

A Profile of Youth Sport in South Australia

2.6 Sports – Untapped Demand

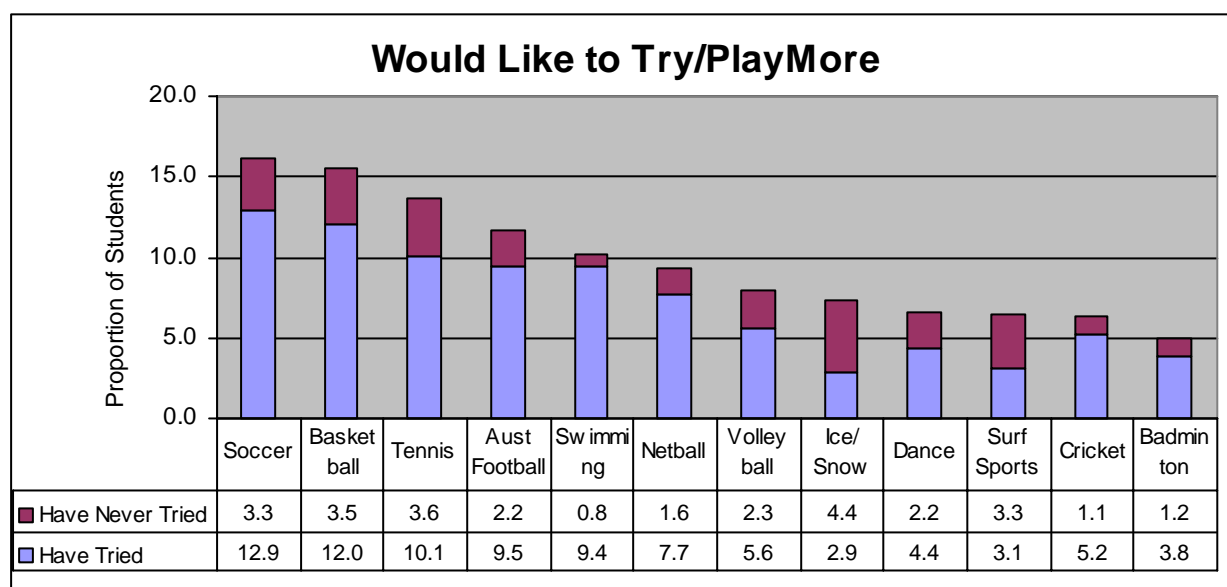
Sports students wanted to play (UNPROMPTED)

Students were asked to list (unprompted) any activities they would like to play (or play more often) and then to nominate whether they had tried these activities previously. The top 12 activities are presented below (Figure 10).

Interestingly, most of the sports frequently nominated by students as wanting to play (or play more) were the sports with an existing high participation rate including soccer, basketball, tennis and Australian football. This is perhaps a manifestation of the finding that students overwhelmingly had a preference for wanting to play with friends. That is, they may be nominating these sports because they know a friend who plays and thus these mass participation sports build on their existing advantage.

Ice/snow sports and surf sports were both perceived as desirable pursuits, however over half those wanting to pursue these activities indicated they had never tried them before.

Figure 10: Activities Students Would Like to Try or Do More Often



A Profile of Youth Sport in South Australia

3. PSYCHO SOCIAL CORRELATES OF PHYSICAL ACTIVITY

Reinforcing, predisposing and enabling factors

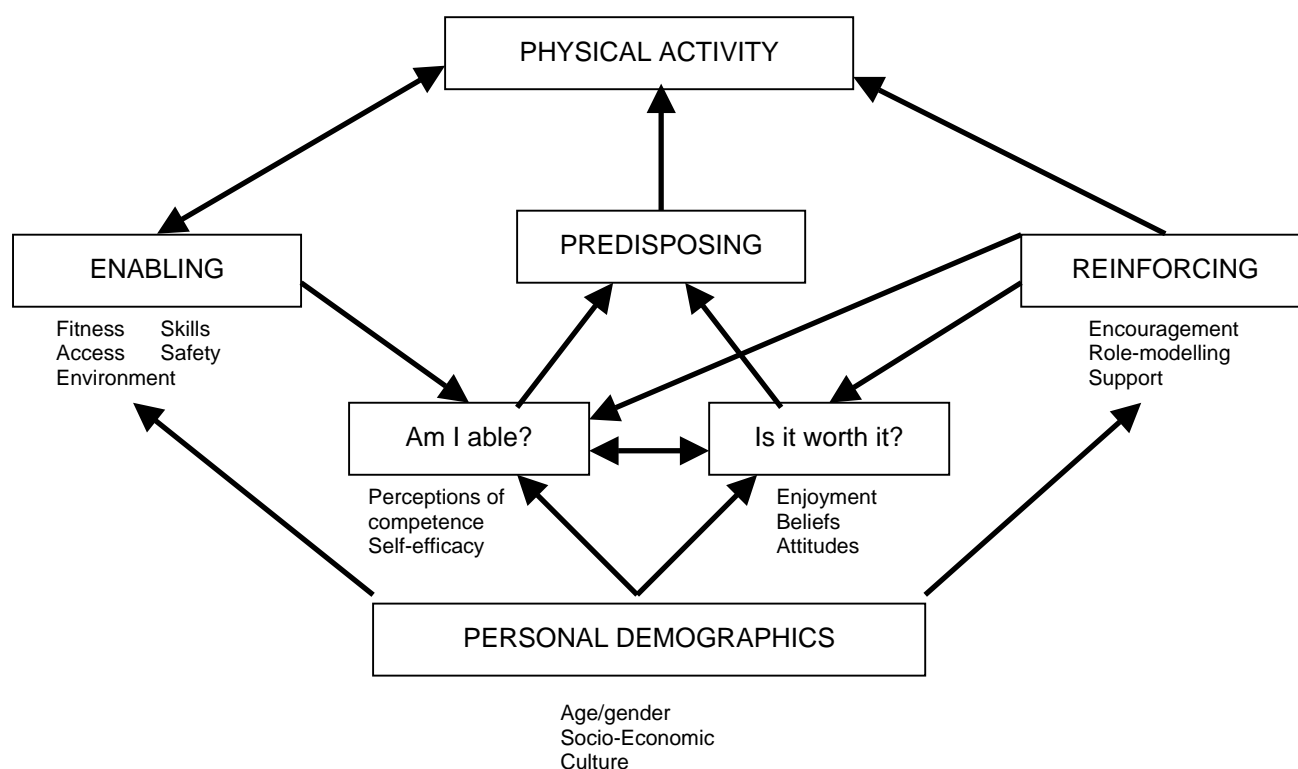
The following summary was part of the PEES analysis and has been extracted from “The predictive utility of the Youth Physical Activity Promotion Model in South Australian youth” with permission from the author, Nicole Lewis.

The PEES analysis investigated the influences of reinforcing, predisposing and enabling factors on the physical activity behaviours of children. The Youth Physical Activity Promotion (YPAP) model was used as a framework for the analysis. In addition, the utility of the model was assessed when the sample was divided across socioeconomic status, geographic location and gender.

Figure 11 describes the relationships proposed in the YPAP model and table 7 summarises the findings by population sub-group, including where significant relationships were found between the variables proposed in the model.

In summary, **reinforcement**, particularly from parents, a good attitude, positive beliefs and enjoyment (“**Is it worth it?**”) were most strongly linked to physical activity. These findings will be useful for the industry as they provide an insight as to which factors are important in predicting physical activity in children and thus can be applied to encourage and maintain regular activity for the youth of South Australia.

Figure 11: Youth Physical Activity Model (YPAP)



A Profile of Youth Sport in South Australia

3.1 Reinforcing Factors

Encouragement, Role-Modelling and Support

The reinforcing index was constructed from a series of 18 questions designed to measure parental encouragement, parent role-modelling and parent support, as perceived by children. The YPAP model suggests that a high score on the “reinforcing index” is a good predictor of physical activity

Across all sub-groups (ie male/female, rural/urban, high/low SES), the relationship between reinforcing factors and physical activity was highly significant.^{vi} In addition to the direct link, reinforcing factors were also linked to “am I able” and “is it worth it”, the latter providing a further indirect pathway to physical activity.

The results of the PEES study confirm the vital role parents play in encouraging and facilitating physical activity. It was clear that the parent’s influence extends across both genders, all socio-economic groups and operates regardless of geographic location.

For maximum impact, parents should not only encourage, role-model and support physical activity, but aim to strengthen the child’s perception of the worth of physical activity and their own abilities. (see predisposing factors “is it worth it?”)

3.2 Predisposing Factors

“Am I able?” and “Is it worth it?”

Is it worth it?

“Is it worth it?” was measured with a series of 15 questions designed to gauge children’s attitudes, beliefs and levels of enjoyment of physical activity. The YPAP model predicts that for a child to be predisposed to physical activity it is important they recognise that the inherent value outweighs the cost of participation.

The importance of attitudes regarding the worth of physical activity was confirmed by the PEES analysis. The “Is it worth it?” index had a highly significant association with physical activity in every condition^{vii} (except rural boys), and as such suggests that an appreciation of the value of a physically active lifestyle has an almost ubiquitous influence upon physical activity.

This finding supports the notion that education efforts should promote an appreciation of the value and enjoyment of sport and physical activity.

A Profile of Youth Sport in South Australia

Am I able?

The “Am I able?” variable was measured with a series of 11 questions designed to gauge the individuals’ perception of their own competence and self-efficacy. In simple terms the questions illicite; how good am I and how easily can I overcome any barriers to physical activity. The YPAP model predicts that youth with a high “am I able” score are predisposed to physical activity.

Overall, the PEES analysis confirmed a positive correlation with “Am I able?” to Physical activity. However, in contrast to the reinforcing and “Is it worth it?” findings above, the effect of “Am I able?” scores were only significantly related to physical activity in one of the subgroups analysed, rural boys.^{viii}

Whilst the majority of literature recommends interventions that build self -efficacy and increase physical activity, the PEES study suggests that parental reinforcement and developing positive attitudes and enjoyment may be more valuable.

3.3 Enabling Factors

Is it available? Can I get there? And Is it safe?

Measures for enabling factors were gathered from parent surveys. The enabling factors examined in the PEES study were transport, access and safety and the analysis found a number of complex relationships within enabling factors.

Access

Access to facilities, programs and/or organised competitions is a pre-requisite for participation. Analysis revealed that for high SES youth (overall and for boys and girls separately) there was no direct or indirect relationship between access and physical activity. Conversely, access was related to participation for all low-SES youth (and for low-SES boys) and for all rural youth (but not when split by gender).

Transport

Transport was found to have a significant and direct relationship with physical activity for rural youth of both genders, and for girls overall. To play organised competitive sport, rural youth often have to negotiate greater distances and do so with a scarcity of public transport. Thus it was not surprising that the relationship between transport and physical activity was significant for rural youth.

Safety

The safety questions posed to parents focussed on traffic, strangers and adult supervision. Overall, this was important for all parents with a direct link between safety and physical activity established for the sample as a whole. When examined by sub-group, the direct link was found for all girls, rural girls, urban girls and low SES girls. This finding confirms that safety is an important consideration for parents of girls.

A Profile of Youth Sport in South Australia

A Profile of Youth Sport in South Australia

Table 1:

Participation Rate in Common Physical Activities - by gender, location and year level -

	Jogging	Walking	Cycling	Football	Basketball	Chasey	Soccer	Dance	Skipping	Cricket	Netball	Wrestling	Tennis	Skate-boarding	Volleyball	Swimming	Baseball/Softball	Aerobics	Hockey	Badminton	Surf Sports	Inline Skating
<i>Males</i>																						
Urban Primary	86.7	78.3	59.1	72.2	64.8	59.2	61.4	23.2	34.2	44.6	9.5	38.4	27.5	34.6	16.2	17.7	20.7	12.7	15.3	10.4	8.7	11.0
Rural Primary	88.7	75.9	74.0	78.0	51.2	51.6	54.5	23.1	29.8	55.0	9.7	45.4	22.8	30.1	13.1	13.1	18.5	8.2	20.8	10.9	8.5	10.1
Urban Secondary	78.4	73.3	64.4	61.0	47.8	23.7	52.5	14.6	17.6	32.2	4.5	26.0	29.2	21.8	28.9	20.4	12.9	8.8	12.0	16.9	13.7	4.8
Rural Secondary	80.3	69.7	77.3	84.2	55.5	15.8	23.3	8.9	9.6	74.6	3.8	24.8	25.4	24.3	5.3	7.0	20.5	3.5	14.7	8.0	8.0	5.4
Sub-Total Males	84.6	75.5	65.9	71.8	55.9	44.5	54.4	19.6	26.6	46.2	7.9	35.9	26.6	29.1	18.3	16.4	17.8	9.9	15.8	12.3	10.1	8.7
<i>Females</i>																						
Urban Primary	87.5	87.3	44.9	37.8	47.5	64.8	44.7	64.4	59.1	17.9	51.8	16.1	21.3	19.8	21.8	19.4	18.5	19.7	11.2	10.8	5.4	8.9
Rural Primary	90.2	87.0	65.8	45.2	46.6	58.6	46.9	62.3	49.8	30.1	64.4	17.4	26.6	14.2	17.6	16.3	16.0	13.5	16.2	8.0	5.5	7.4
Urban Secondary	75.0	91.6	36.2	31.6	30.2	33.7	31.4	53.5	35.8	12.1	32.1	10.2	22.9	9.0	31.2	17.2	8.5	17.4	7.4	18.7	7.9	3.6
Rural Secondary	77.2	90.8	46.5	22.4	38.9	29.4	27.8	45.9	28.4	16.7	68.7	11.7	15.3	5.5	11.0	8.3	19.2	15.2	5.6	13.1	3.5	2.8
Sub-Total Females	83.7	88.6	48.6	37.2	42.6	52.0	39.8	59.4	48.1	19.6	52.2	14.6	22.3	14.1	21.9	17.3	15.0	17.0	11.0	12.3	6.0	6.8
Total Participation	84.2	82.3	57.1	53.9	49.1	48.4	46.8	40.5	37.8	32.4	31.2	24.9	24.4	21.3	20.1	16.9	16.4	13.6	13.3	12.3	8.0	7.8

A Profile of Youth Sport in South Australia

Table 2:

Frequency of Physical Activity in Free Time (cumulative)

- % by gender, location and year level -

	Little PA in last week	At least 1 x PA in last week	At least 3 x PA in last week	At least 5 x PA in last week	Frequent PA in last week
<i>Males</i>					
Urban Primary	9.4	90.6	71.7	46.2	22.5
Rural Primary	12.6	87.4	69.9	45.0	21.6
Urban Secondary	14.5	85.5	59.9	31.2	14.0
Rural Secondary	6.6	93.4	67.2	36.1	7.4
Sub-Total Males	11.2	88.9	68.0	41.0	18.9
<i>Females</i>					
Urban Primary	12.2	87.9	57.7	27.4	10.2
Rural Primary	8.8	91.2	63.8	28.1	10.8
Urban Secondary	13.2	86.8	50.9	22.2	9.0
Rural Secondary	12.3	87.7	47.4	17.5	4.5
Sub-Total Females	11.5	88.6	57.2	25.8	9.8
Total	11.3	88.7	62.3	33.0	14.1

A Profile of Youth Sport in South Australia

Table 3:

Typical School Day Screen Time (Cumulative)

- % by gender, location and year level -

	Do not watch TV	Less than 1 hr/day	1 hr or more/day	2 hrs or more/day	3 hrs or more/day	4 + hrs/day
<i>Males</i>						
Urban Primary	3.1	13.0	83.9	67.3	36.1	14.5
Rural Primary	4.1	17.0	78.9	59.9	29.3	13.1
Urban Secondary	1.1	7.5	91.3	75.9	42.1	15.7
Rural Secondary	0.0	9.2	90.8	73.3	33.3	10.8
Sub-Total Males	2.6	12.2	85.2	68.0	35.6	14.3
<i>Females</i>						
Urban Primary	2.4	14.9	82.8	64.9	35.9	11.9
Rural Primary	1.2	9.0	89.8	74.7	38.5	14.4
Urban Secondary	1.9	19.1	79.0	60.1	28.4	12.8
Rural Secondary	0.0	8.4	91.6	73.5	43.9	9.7
Sub-Total Females	1.8	14.0	84.1	66.8	35.2	12.4
TOTAL	2.2	13.2	84.5	67.3	35.3	13.3

A Profile of Youth Sport in South Australia

Table 4a:

Rate of Regular Participation in Organised Sport (unprompted)

	Netball	Basket-ball	Aust ⁿ Football	Swimming	Soccer (outdoor)	Tennis	Cricket (outdoor)	Dancing	Volleyball	Running	Cycling	Athletics	Softball	Hockey (outdoor)	Surf Sports
<i>Males</i>															
Urban Primary	1.9	37.5	51.9	18.0	39.1	12.8	32.7	1.9	2.8	8.0	8.0	5.2	1.7	6.1	2.9
Rural Primary	1.6	41.7	75.9	23.3	25.4	24.9	36.9	0.5	0.5	9.4	11.8	6.7	2.4	6.7	2.9
Urban Secondary	1.7	26.5	34.8	14.6	33.2	21.2	22.4	1.4	20.8	4.5	14.6	3.3	1.4	3.3	7.4
Rural Secondary	0.9	58.9	85.7	14.3	0.9	49.1	65.2	0.0	1.8	3.6	8.0	4.5	1.8	1.8	4.5
Sub-Total Males	1.6	36.8	56.2	18.2	31.4	21.1	33.7	1.2	7.0	6.9	10.8	5.0	1.8	5.0	4.3
<i>Females</i>															
Urban Primary	53.0	24.7	5.7	25.2	16.4	15.7	3.2	27.9	6.6	8.4	4.4	3.0	12.0	5.4	3.4
Rural Primary	74.2	37.2	13.8	42.5	16.2	29.5	6.5	12.3	3.6	12.6	6.8	9.7	7.7	6.0	2.9
Urban Secondary	49.1	16.9	10.6	23.2	23.4	15.1	3.3	22.4	30.2	7.8	4.0	4.3	4.8	2.5	7.3
Rural Secondary	82.3	46.9	11.6	37.4	3.4	34.7	4.8	7.5	4.1	2.7	1.4	8.8	4.1	4.1	4.1
Sub-Total Females	61.0	28.3	9.6	30.9	16.8	21.0	4.2	20.4	11.5	8.7	4.8	5.8	8.1	4.8	4.4
TOTAL	29.5	29.5	29.4	22.5	21.8	19.2	16.8	10.7	8.9	7.5	7.0	5.1	4.6	4.5	4.3

A Profile of Youth Sport in South Australia

Table 4b:

Rate of Regular Participation in Organised Sport (unprompted)

	Rugby League	Walking (other)	Martial Arts	Baseball	Table Tennis	Touch Football	Roller Sports	Golf	Gymnastics	Equestrian	Badminton	Motor Sports	Soccer (indoor)	Aerobics/fitness	Lacrosse	Lawn Bowls
<i>Males</i>																
Urban Primary	3.1	1.6	5.5	7.3	3.5	4.7	3.1	2.8	0.3	0.0	1.7	1.4	3.3	0.0	1.6	2.1
Rural Primary	7.0	1.3	3.7	5.3	1.9	0.5	4.0	9.9	0.8	0.5	0.8	7.8	0.5	0.0	0.0	1.1
Urban Secondary	4.8	2.9	2.6	5.3	5.7	1.4	6.2	2.1	0.5	0.5	4.1	1.4	1.9	1.0	3.8	0.5
Rural Secondary	8.9	0.9	0.0	1.8	14.3	0.0	1.8	11.6	2.7	0.0	3.6	9.8	0.0	0.0	0.9	5.4
Sub-Total Males	4.9	1.8	3.7	5.7	4.4	2.3	4.0	5.1	0.7	0.3	2.6	3.7	1.9	0.3	1.7	1.6
<i>Females</i>																
Urban Primary	2.5	4.7	4.1	2.0	2.5	3.7	2.9	0.3	5.1	4.4	2.0	0.3	2.4	2.7	0.8	0.3
Rural Primary	5.1	5.6	1.2	2.2	1.4	2.7	0.7	0.7	4.3	4.3	1.2	1.0	0.5	0.2	0.0	0.5
Urban Secondary	0.0	7.3	5.0	0.0	1.3	2.3	1.0	0.5	3.0	1.3	2.5	0.0	0.0	5.0	1.3	0.8
Rural Secondary	4.8	4.1	0.0	0.0	1.4	6.1	0.0	0.0	4.8	8.8	0.7	0.0	0.0	0.0	0.0	0.0
Sub-Total Females	2.7	5.4	3.2	1.4	1.7	3.2	1.5	0.4	4.3	3.9	1.9	0.4	1.0	2.4	0.6	0.5
TOTAL	3.4	3.3	3.1	3.1	2.8	2.5	2.5	2.4	2.4	2.1	2.1	1.8	1.3	1.2	1.1	1.0

A Profile of Youth Sport in South Australia

Table 5:

Participation Rate by Sport Environment

	Play a Club Sport	Play a School Sport	Play a sport for club and school	Play "Other" Sport
<i>Males</i>				
Urban Primary	73.2	75.3	25.2	39.1
Rural Primary	84.8	59.1	26.8	45.8
Urban Secondary	71.6	60.6	31.3	48.8
Rural Secondary	96.4	43.6	25.5	36.4
Sub-Total Males	77.6	64.2	27.1	43.1
<i>Females</i>				
Urban Primary	66.9	63.8	15.0	45.1
Rural Primary	82.8	56.6	20.8	47.5
Urban Secondary	67.1	70.2	25.0	41.8
Rural Secondary	91.2	51.0	18.4	34.7
Sub-Total Females	74.0	62.2	19.8	43.9
TOTAL	75.7	63.0	23.3	43.6

A Profile of Youth Sport in South Australia

Table 6:

Percent of Respondents Agreeing with Barrier

	Try new sports if friends interested	More sport if friends involved	No time to play as much sport as like	Homework limits sport	Health/injury prevent some sport	Problems with transport	Sports not available	Feel embarrassed doing sport or exercise	Not into sport	Costs too much	Health/injury problems prevent all sport	No time to play any sport	Sport too competitive	Parents don't want me to play sports like	Too unfit to play sport or do PA	Afraid of being injured	Parents don't want me to play
<i>Males</i>																	
Urban Primary	54.9	47.3	34.6	38.5	33.2	26.0	16.8	11.8	9.5	12.8	7.6	5.8	3.7	4.7	3.7	2.8	2.3
Rural Primary	56.9	44.7	28.2	30.2	37.7	31.5	20.7	15.9	12.2	9.1	12.0	4.1	4.0	4.5	5.3	3.3	2.8
Urban Secondary	55.5	49.5	41.4	47.4	29.7	32.6	17.9	11.7	18.6	12.2	9.0	12.5	7.1	7.3	7.4	5.7	2.5
Rural Secondary	56.8	36.1	35.6	39.0	27.4	38.3	24.1	14.3	13.6	5.9	7.7	5.8	3.4	5.0	5.0	5.0	3.4
Sub-Total Males	55.8	46.1	34.9	38.3	32.8	30.0	18.4	12.8	12.8	11.0	9.1	7.3	4.8	5.4	5.1	3.9	2.5
<i>Females</i>																	
Urban Primary	54.2	51.7	39.5	29.4	32.5	30.1	18.2	22.3	15.9	17.0	10.0	7.3	6.4	4.1	4.8	4.8	2.3
Rural Primary	50.5	39.2	30.0	22.8	33.9	36.5	21.7	18.1	11.1	11.0	9.8	5.1	3.7	5.8	4.4	3.3	1.6
Urban Secondary	65.0	58.1	52.6	60.7	36.0	34.7	20.3	29.0	25.1	19.0	10.5	17.8	11.6	7.3	7.9	4.9	4.4
Rural Secondary	68.0	53.9	39.3	34.0	22.7	36.4	31.1	34.9	15.9	7.9	6.7	4.7	10.5	2.6	6.0	2.0	1.3
Sub-Total Females	57.3	50.2	40.1	35.6	33.1	33.6	20.6	23.8	16.7	15.1	9.6	9.0	7.2	5.3	5.4	4.1	2.7
Total	56.6	48.2	37.2	36.9	33.0	31.8	19.6	18.5	14.8	13.1	9.4	8.2	6.0	5.4	5.2	4.0	2.6


A Profile of Youth Sport in South Australia

Table 7:

Summary of PEES Analysis

Correlations between variables in the Youth Physical Activity Model

Path	All Youth			Rural Youth			Metro Youth			High SES Youth			Low SES Youth		
	All	boys	girls	All	boys	girls	All	boys	girls	All	boys	girls	All	boys	girls
Direct Links															
Reinforcing \Rightarrow Physical Activity															
Am I able \Rightarrow Physical Activity															
Is it worth it \Rightarrow Physical Activity															
Transport \Rightarrow Physical Activity															
Access \Rightarrow Physical Activity															
Safety \Rightarrow Physical Activity															
Indirect Links															
Reinforcing \Rightarrow Is it worth it?															
Reinforcing \Rightarrow Am I able?															
Am I able \Rightarrow Is it worth it?															
Transport \Rightarrow Am I able?															
Access \Rightarrow Am I able?															
Safety \Rightarrow Am I able?															

 Denotes a highly significant relationship (where t-statistics > 2.576)

 Denotes a significant relationship (where t-statistics > 1.645)

A Profile of Youth Sport in South Australia

SAMPLE POPULATION SUMMARY

			Count	Total
Male	Urban	Upper Primary (5,6,7)	624	
	Urban	Lower Secondary (8,9,10)	457	
	Rural	Upper Primary (5,6,7)	400	
	Rural	Lower Secondary (8,9,10)	125	
Female	Urban	Upper Primary (5,6,7)	650	
	Urban	Lower Secondary (8,9,10)	448	
	Rural	Upper Primary (5,6,7)	444	
	Rural	Lower Secondary (8,9,10)	158	3306

FOOTNOTES

ⁱ There were 42 records were removed from the data set due to the incomplete nature of the responses.

ⁱⁱ Olds T, Dollman B, Ridley K, Boshoff K, Hartshorne S and Kennaugh S (2004), Children and Sport, Australian Sports Commission. Page 107.

ⁱⁱⁱ Olds T, Ridley K, Dollman J, Screenieboppers and extreme screenies: the place of screen time in the time budgets of 10-13 year-old Australian children. Aust NZ Journal of Public Health, 2006 Apr 30 (2) Page 137-42

^{iv} Australian Sports Commission; ERASS Exercise Recreation and Sport Survey, A joint initiative of the Australian Sports Commission and the state and territory agencies responsible for sport and recreation. 2001-2005

^v Australian Bureau of Statistics; Participation in Sports and Physical Recreation. 2005-06 (cat no 4177.0)

^{vi} Relationship between reinforcing factors and physical activity highly significant ($p \leq 0.005$) with the exception of rural boys where the relationship was significant at $p \leq 0.05$.

^{vii} The strongest correlations between model variables were seen in the links from "Is it worth it?" to physical activity and between "Is it worth it?" and "Am I able?". Across all but one subgroup (rural boys), the direct pathway between "Is it worth it?" to physical activity was highly significant ($p \leq 0.005$). A significant direct link between the two predisposing variables was noted in all sub-groups.

^{viii} "Am I able?" was found to have a direct significant relationship with Physical Activity for the whole sample of SA youth, but when analysed by gender the association ceased to be significant for either gender. Similarly for SES, the direct pathway to physical activity was seen for both high and low SES children, but not when split by gender. When analysed by geographic location, "Am I able?" was highly significant ($p \leq 0.005$) for rural boys.