

# SPORT AND RECREATION ACTIVITY PATTERNS OF 12-YEAR-OLD LEARNERS AT A CITY PRIVATE PRIMARY SCHOOL

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## ABSTRACT

*The new millennium brought about many changes, including changes in the physical activity patterns of children. Children are labelled as the “screen generation”. Owing to the wide exposure to computers, television, play stations and cellphones, children tend to lead more sedentary lifestyles as their age increases. A survey was done at a city private primary school to determine the physical activity patterns of the Grade 6 (12 year old) learners (N=63, 33 boys and 30 girls). A self-constructed questionnaire, based on the activities the school offers and on the extramural activities the learners participate in, was used to measure the learners' physical activity patterns and to obtain data about their reasons and key motivators for participation. The responses show that the same group of learners participates in almost all the activities offered. The main problem clearly concerned learners who were uninvolved in all physical activities. Schools were identified as the key element to promote physical activity among learners (Vidyya, 2002:4; Aarnio, 2003:27). The activities must be positive and enjoyable to keep learners motivated and interested in future participation.*

## 1. INTRODUCTION

The 21<sup>st</sup> century clearly shows that times have changed and that learners in urban areas are naturally active, but then tend towards inactivity as they grow older, according to a study in Finland (Aarnio, 2003:3). They no longer walk or ride their bicycles to school, but rather make use of buses (Aarnio, 2003:3). Learners in rural areas were not included in this study, although they represent a major part of the South African population. Owing to the general unavailability of public transport, most of these learners have not yet been confronted with the problem of inactivity. The amount of active time daily has decreased due to the popularity of computers, television and cellphones among children. This leads to more sedentary lifestyles and inactivity in children, which may cause obesity (Wolfe, 2003a:1). According to Wolfe (2003a:3) there is only one solution for obesity and low self-esteem in children, namely exercise! Moreover, Wolfe maintains that physical activity holds many health benefits, contributing to “bigger and stronger hearts, greater muscle mass, less fatty tissue and stronger bones”. Ganley and Sherman (2000:2) identified exercise as important for bone development, weight control, cardiovascular protection and many psychological benefits.

Potgieter (1997), supporting the notion that exercise influences mental health, argued that regular exercise would have a positive effect on quality of life, self-esteem and self-efficiency and, which is crucial, to facilitate reduction of stress levels and depression. Self-esteem, developed during childhood, will improve through exercise, thus the correlation between the two is self-explanatory.

Unfortunately, exercise and physical activities are influenced by a variety of variables, including, according to Aarnio (2003:7), gender, race, age, intentions, depression, previous physical activity, sensation seeking, being sedentary after school and on weekends, encouragement from parents to exercise, parents' direct help and the opportunity to exercise. Vidyya (2002:4) and Aarnio (2003:27) identified schools as the key promoters of physical activity among children, as most children attend schools.

Referring to learners of all racial groups in the Western Cape, Van Deventer (1999:93) found that only 38% learners participated in school sports - 27% in physical leisure activities and 23% in club sports. "Physical education should be a youth-friendly learning experience within personalised content ..., in which the person can develop critical life skills within the alternatives and choices provided in the content of each programme ... " (Van Deventer, 1999:100).

According to Ganley and Sherman (2000:4), the most important key when planning and promoting physical activities among children (learners) is fun and enjoyment, therefore children's exercise needs and preferences must be determined. Unwise promotion of physical activity can result in sedentary adulthood.

## **2. PROBLEM STATEMENT AND HYPOTHESIS**

The problem to be addressed is why only a section of learners participate in the variety of physical and recreation activities offered by the primary school.

The hypothesis states that the selected primary school offers the wrong (unpopular) activities to learners.

## **3. AIMS OF THE STUDY**

This research therefore aims to:

- identify current sport, recreation and extra-mural physical activity patterns among 12-year-old learners at a selected primary school;
- identify the preferred organised sport and recreation activities offered at the selected primary school; and
- determine ways to motivate non-active primary school learners to participate.

## **4. RESEARCH METHODS**

### **4.1 Type of research**

Quantitative research design, focusing on analysis and deductive reasoning, was used (Thomas & Nelson, 1996:332). The descriptive research method was used to achieve the goal of this study. The best, quickest and most cost-effective way to collect all relevant information from all subjects was to use a self-constructed questionnaire as instrumentation for interactive data collection.

### **4.2 Subjects**

All the Grade 6 learners, involving 33 12-year-old boys and 30 girls (N=63) of the selected primary school concerned, completed the questionnaire. Each learner received an informed-consent (child assent) form, developed according to the methodology and requirements of Olivier and Olivier (2001a&b), which had to be signed by the parent/guardian and returned prior to data collection.

It is important to note that the results of this study cannot be seen as the norm for all 12-year-old learners, as only one school was included in this study.

### **4.3 Research instrument**

The research instrument used was a self-constructed questionnaire. The dependent variables of the questionnaire helped the researcher to collect information about the behaviour patterns of the subjects regarding organised sport, recreation and extra-mural activities.

The dependent variables of this questionnaire were personal information, organised school sport and recreation activities, activities outside school and general information about the subjects' behaviour patterns. The term "outside of school" was used in the questionnaire to make a clear distinction between the different sections.

### **4.4 Procedures**

#### ***4.4.1 Developing and constructing the questionnaire***

The questionnaire was constructed according to the methodology of Thomas and Nelson (1996), Adams, Bezner and Steinhardt (1997) and Beackle, Burema and Frijters (1982). It consisted of open-ended questions and closed questions. Scaled items, Likert scales and categorical responses were used as closed questions.

Based on the problem statement, the following questions were asked:

- In what organised and recreation school sport did they participate?

- In what extra-mural (outside school) activities did they participate?
- How many hours per week did they spend on each/any activity/activities mentioned above?
- What motivated them to participate in any of the activities mentioned above?

The questionnaire covered demographical information that included the learners' age, gender, home language, type of housing and amount of spending money received per week. This information was useful for dividing the group into various categories during the discussion of the results.

#### *4.4.2 Conducting the pilot study*

The pilot study was administered to two boys and one girl (n=3) to examine and determine whether the items of the questionnaire were clear and appropriate, the questions and instructions were understood correctly and the time allocation was adequate, i.e. to ensure that there were no methodological faults. This procedure was repeated after two days with the same subjects. There was no need to adjust the questionnaire.

#### *4.4.3 Completing the questionnaire*

During a free period, all the Grade 6 (12-year-old) learners (N=63) completed the questionnaire simultaneously in the presence of the researcher and teachers. The researcher explained all the questions to ensure consistency. The completed questionnaires were collected immediately after completion.

## **5. STATISTICAL ANALYSIS**

The data of this study was processed using the survey methodology. Descriptive statistics was applied. The data was analysed by means of percentage and frequency tables and figures.

## **6. RESULTS AND DISCUSSION**

The results of the study are presented and discussed in the following sections: Organised school sports; Recreation; Extra-mural activities; Latent needs; Leisure activities; and Physical education. Owing to the descriptive nature of the quantitative data, the results are expressed in percentages that will be rounded off to whole numbers. Tables and figures will make the data more understandable.

### **6.1 Organised school sports**

The primary school offers 12 organised sport activities in total, as listed in table 1.

<b>SPORT ACTIVITIES</b>	<b>GIRLS % (N=30)</b>	<b>BOYS % (N=33)</b>	<b>TOTAL %</b>	<b>TOTAL N=63</b>
Tennis	53 (16)	55 (18)	54	34
Hockey	57 (17)	42 (14)	49	31
Swimming	47 (14)	33 (11)	40	25
Soccer	3 (1)	58 (19)	32	20
Netball	57 (17)	0 (0)	27	17
Cricket	3 (1)	33 (11)	19	12
Table tennis	7 (2)	30 (10)	19	12
Volleyball	23 (7)	0 (0)	11	7
Ballet	20 (6)	0 (0)	10	6
Run/Walk	3 (1)	12 (4)	8	5
Softball	7 (2)	3 (1)	5	3
Intro golf	0 (0)	6 (2)	3	2
<b>TOTAL</b>	<b>87 (26)</b>	<b>94 (31)</b>		

**TABLE 1. Participation in organised school sport**

Gender preferences showed that 58% (n=19) of the boys participated in soccer, 55% (n=18) in tennis and 42% (n=14) in hockey, whereas 57% (n=17) of the girls participated in hockey and netball, 53% (n=16) in tennis and 47% (n=14) in swimming.

Tennis (54%; n=34); hockey (49%; n=31) and swimming (40%; n=25) were the three activities in which most Grade 6 learners participated at the school. The smallest number participated in run/walk (8%; n=5); softball (5%; n=3) and intro golf (3%; n=2).

## 6.2 Recreation activities

Recreation activities offered at the primary school are listed in table 2. All the recreation activities were offered to the learners as “clubs” to be joined voluntarily in the afternoons.

<b>RECREATION ACTIVITIES</b>	<b>GIRLS % (N=30)</b>	<b>BOYS % (N=33)</b>	<b>TOTAL %</b>	<b>TOTAL N=63</b>
Backpacking	33 (10)	45 (15)	40	25
Computer room	20 (6)	15 (8)	22	14
Dance	33 (10)	3 (1)	17	11
Piano	17 (5)	12 (4)	14	9
Art	17 (5)	0 (0)	8	5
Needlework	17 (5)	0 (0)	8	5
Chess	0 (0)	9 (3)	5	3
Adv. instrument group	10 (3)	0 (0)	5	3
Library research	3 (1)	0 (0)	2	1
Wildlife	0 (0)	0 (0)	0	0

**TABLE 2. Participation in recreation activities**

Backpacking is the recreation activity with the highest level of participation, with 40% (n=25) of the learners taking part, followed by 22% (n=14) in computer room and 17% (n=11) in dancing. Only three girls (5%) participated in the advanced instrument group, one girl (2%) in library research and none in wildlife.

A comparison between tables 1 and 2 indicates 10 sport and recreation activities at the primary school with less than 10% (n=6) participation by Grade 6 learners. Those activities are ballet, needlework, run/walk, softball, chess, advanced instrument group, intro golf, library research and wildlife.

Only 73% (n=24) of the boys participated in recreation activities, compared to 94% (n=31) that participated in organised sports. The percentage of participation by girls in recreation activities was the same as in organised sports, namely 87% (n=26). That is interesting to note, because previous studies by Aarnio (2003:5), Wright et al. (2003:31) and van Deventer (1999:97) showed that girls actually prefer participation in school activities.

Recreation activities did not interfere with organised sport practices, offered at different times in the afternoons. Only computer room and library research were offered in the same timeslots as sports. Learners had to choose between participation in sport and in recreation activities.

### 6.3 Reasons for participating in sport and recreation activities

In the questionnaire, the respondents had to choose from a list of reasons for participating in sport and/or recreation activities. Ninety eight percent (n=56) participated for fun and enjoyment, 79% (n=50) for exercise, 35% (n=22) for school teams, 11% (n=7) for time consumption, 6% (n=4) because of peer pressure and 5% (n=3) due to parental pressure.

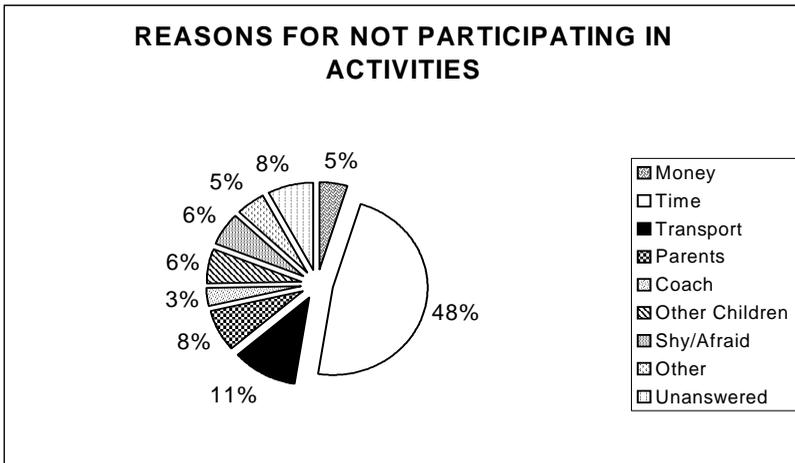
An open-ended question requested respondents to suggest changes or developments that would motivate them to increase participation. The following replies were made:

The boys stated that these activities would be more attractive if their skills and strength could be developed. The girls' recommendations included: rewards received for participation; "more fun"/"nicer" /"easier" activities; less competition; the activity should be offered at a different time; and less homework because they don't really have time to participate. The girls said that they don't want to be "tortured", but asked "nicely" to participate. Some wrote that they needed greater peer pressure.

In another group where no respondents participated in any sport and/or recreation activities, 13% (n=4) of the girls and 6% (n=2) of the boys did not participate in any organised school sports, while 13% (n=4) of the girls and 27% (n=9) of the boys did not participate in recreation activities.

### 6.4 Reasons for not participating in sport and recreation activities

Respondents had to choose from reasons for not participating in sport and/or recreation activities listed in the questionnaire. The main reason, given by 48% (n=30), was lack of time. Five percent (5%; n=3) marked "other" reasons that included not wanting to, not liking it, too many extra-mural activities and not liking competition. Eight percent (8%; n=5) of the respondents did not indicate any reason for not participating.



**FIGURE 1**

### 6.5 Extra-mural activities

Extra-mural activities included sport and/or recreation activities not offered at or by the school, referred to in the questionnaire as “outside of school activities” to clarify the concept to the learners.

Table 3 lists 31 different extra-mural activities the respondents indicated as activities in which they participated. Table 3 below indicates the number of learners participating in each activity, the average hours per day, days per week (average) and number of years (average) that they have been participating.

Seventy three percent (73%; n=46) of the Grade 6 learners participated in an extra-mural (outside school) activity, whereas 27% (n=17) did not participate in any extra-mural activity. Of the girls, 83% (n=25) participated, as against only 64% (n=21) of the boys.

Table 3 indicates that, on average, all the learners (73%; n=46) who participated in any extramural activity had been spending almost two hours, two days per week for at least the past three years, participating in these various activities.

ACTIVITY	Total learners	HOURS PER DAY (Average)	DAYS PER WEEK (Average)	YEARS (Average)
Art (2%; n=1)		2	1	6
Ballet (3%;n=2)		1.5	2	3.5
BMX – Trick bike (2%; n=1)		1	1	4
Cricket (2%; n=1)		1	2	3
Dancing (17%; n=11)		1.4	1.4	3.4
Diving (2%; n=1)		2	1	2
Drama (2%; n=1)		1	1	6
Drums (3%; n=2)		0.75	1	0.4
Fencing (3%; n=2)		1	1	0.6
Golf (6%; n=4)		1.75	1.25	1.25
Guitar (5%; n=3)		1.2	1	2.3
Gymnastics (3%; n=2)		3	3	4
Horse-riding (8%; n=5)		1.25	1.5	4.5
Ice, figure skating (5%; n=3)		1.6	2.3	2.7
Karate (5%; n=3)		1	2.25	2.25
Lifesaving (2%; n=1)		1	5	3
Martial arts (2%; n=1)		3	3	4
Motocross (2%; n=1)		3	5	4
Piano (10%; n=6)		0.9	1	1.6
Pool (2%; n=1)		4	2	3
Putt-putt (2%; n=1)		4	2	4
Rhythmic gymnastics (3%; n=2)		2.5	3.5	4.5
Rugby (2%; n=1)		2	2	4
Singing (2%; n=1)		1	1	1
Skating (2%; n=1)		3	6	4
Soccer (2%; n=1)		2	2	
Street hockey (2%; n=1)		2	1	4
Swimming (10%; n=6)		1.6	4	4.4
Tennis (5%; n=3)		1.4	1.15	1.35
Tenpin bowling (2%; n=1)		4	2	3
Wrestling (2%; n=1)		1.5	2	7
<b>Average time: (Extra-mural activities)</b>		<b>1.9</b>	<b>2.1</b>	<b>3.3</b>

**TABLE 3. Participation in extra-mural activities**

Results showed that 54% (n=34) of the Grade 6 learners took part in organised sport and recreation activities (one hour per activity, twice per week,) offered at the primary school, and in extra-mural activities. On average, therefore, 54% of the Grade 6 learners at the primary school spent four days per week for at least four hours each day on sport, recreation and extra-mural activities.

The learners were asked if they were too busy in the afternoons to finish homework; exercise; spend quality time with their families; and relax. On average, 31% (n=19) stated that they were too busy for some or all of the activities mentioned above. Time was the main issue that related to the reasons for not participating (figure 1). It was interesting to note that nine extra-mural activities in which the learners participated were also offered at the primary school. These were dancing, piano, ballet, tennis, art, swimming, golf, soccer and cricket. The primary school needs to discover why these learners preferred the extra-mural clubs to activities offered at school.

Table 4 summarises all the physical activity patterns of the respondents. The percentages and the total participants and non-participants will indicate the gender-related differences.

	BOYS		GIRLS		GROUP	
	%	N=33	%	N=30	%	N=63
Organised school sport: Participative	94	31	87	26	90	57
Non-participative	6	2	13	4	10	6
Recreation activities: Participative	73	24	87	26	80	50
Non-participative	27	9	13	4	20	13
Extra-mural activities: Participative	64	21	83	25	73	46
Non-participative	36	12	17	5	27	17
Not participating in any physical activity	3	1	0	0	2	1
Participating in any physical activity	97	32	100	30	98	62

**TABLE 4: Summary of gender-related differences and physical activity patterns**

### 6.6 Latent needs

An open-ended question presented an opportunity to name any three activities not offered at the primary school in which they would like to participate. Table 5 lists the 30 activities requested, ranging from the most requested activity (dancing) to the least. These requests were labelled "latent needs". The learners

had a chance to make their voices heard, just as if they were drawing up a Christmas wish list. All these needs, as well as the percentages of boys and girls requesting each activity, are included in the latent needs list. Dancing includes modern, hip-hop, Latin American and Christian dances.

<b>ACTIVITY</b>	<b>GIRLS (%)</b>	<b>BOYS (%)</b>	<b>TOTAL (%)</b>
Dancing	60	-	60
Rugby	20	21	41
Basketball	20	15	35
Horse-riding	27	3	30
Squash	17	6	23
Water polo	13	6	19
Motocross	-	18	18
Handball	-	15	15
Golf (senior)	-	15	15
Fencing	10	3	13
Pool	-	12	12
Skateboarding	-	12	12
Baseball	7	3	10
Drums	-	9	9
Modelling	7	-	7
BMX	7	-	7
Go-carts	-	6	6
Ice-skating	-	6	6
Archery	-	6	6
Gymnastics	3	-	3
Trampoline	3	-	3
Tenpin bowling	-	3	3
Mountain biking	-	3	3
Wrestling	-	3	3
Roller lading	-	3	3

Gym	-	3	3
Martial arts	-	3	3
Pole vaulting	-	3	3
Dodge ball	-	3	3
Street hockey	-	3	3

**TABLE 5. The latent needs list**

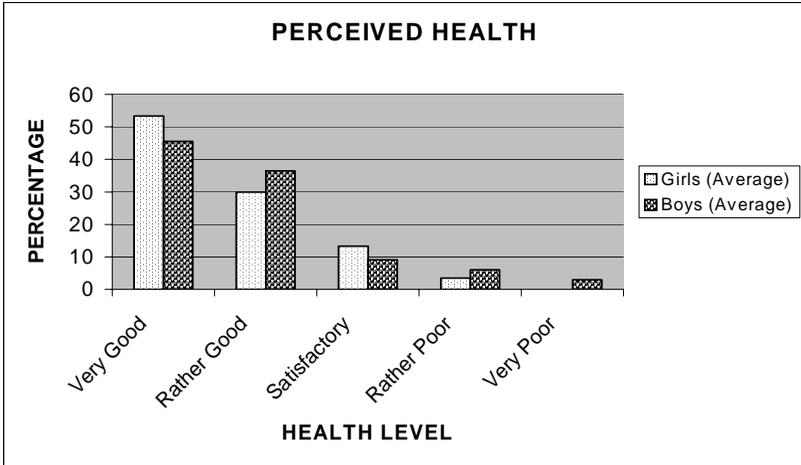
Many of the activities that appeared on the latent needs list were already offered at the primary school. Sixty percent of the girls stated dancing as a need. Results showed that only 33% of the girls participated in the dancing period (club) already available at the primary school. Possible reasons for this could be that the dance club is either too boring or did not offer the dances they wished to learn.

The same was illustrated in the case of the boys who requested senior golf. The primary school offered intro golf, but these boys were twelve years old and had been playing intro golf for quite some time.

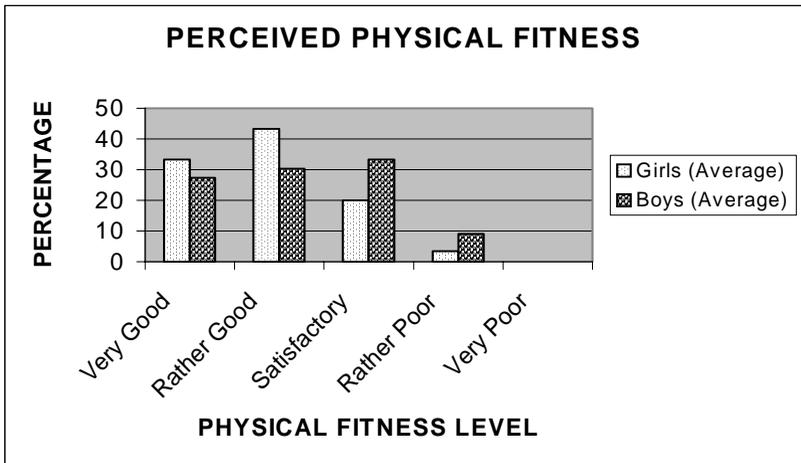
They may already have been more advanced and needed to train at a more advanced (senior) level. At that stage, only 33% of the girls were participating in dance and only 6% of the boys in intro golf. When considering their requests for these two activities, it was found that dance participation could increase to 60% and golf (senior) to 15% if the activities were adjusted and modified.

## 6.7 Perceived Health and Fitness

Figure 2 and Figure 3 respectively show the perceived fitness levels and perceived health levels of the girls and boys on average. It is important to bear in mind that 73% are taking part in extra-mural activities, 90% in organised school sports and 79% in recreation activities.



**FIGURE 2**



**FIGURE 3**

The respondents' perception of their health and fitness is not necessarily accurate. It was not measured; therefore each respondent rated his/her health and fitness according to his/her own parameters and perception. The question was included to discover the extent of their knowledge on health and fitness and the influences of exercise in the long term.

## 6.8 Leisure activities

Open-ended questions were used to determine respondents' leisure-time activities. The results were diverse, ranging from reading to beadwork. The most popular leisure activity was technology, which included television, computer and play station. The active outdoor activities included skating, playing with pets and swimming. The passive indoor activities included reading, movies, visiting shopping malls, listening to music and hobbies (scrapbook, drawing, beadwork and painting).

## 6.9 Physical education

The questionnaire obtained information about the level of the Grade 6 learners' physical education. They had to mark either "yes" or "no" in response to each of the following statements, indicating whether they did or did not know about the health benefits. The percentages shown represent the learners who knew the benefits of physical activity, which included: increase in muscle strength (95%; n=60); increase in physical fitness (100%; n=63); increase in self-esteem (71%; n=45); increase in bone density and bone strength (68%; n=43); decrease in stress (46%; n=29); and decrease in blood pressure (35%; n=22).

On average, at the age of twelve, they were only 73% (n=46) aware of all the above health benefits. After learning of these benefits, 49% (n=31) of the learners stated that they would change their exercise behaviour.

## 7. CONCLUSION AND RECOMMENDATIONS

In the problem statement of this study, it was suggested that the selected primary school could be offering the wrong activities, i.e. activities in which the learners take little or no interest, and that only a section of learners participated in all the activities. The results show that most of the Grade 6 learners (85%) were actively involved in sports, and some were participating in several activities at the same time. However, in spite of the variety of activities the school offered (see tables 1 and 2), several learners did not participate in any physical activity. Furthermore, the gender results indicate that the Grade 6 girls were more involved in physical activities, recreation and non-competitive activities, while the boys participated more in organised, competitive sports.

According to Aarnio (2003:28), the challenge is to get the inactive children involved in physical activity. In the same vein, Ganley and Sherman (2000:4) emphasised how important it was for learners to be able to state their needs in terms of physical activities. This research assessed those latent needs (table 5), therefore the following recommendations may help the primary school in planning future programmes, to make it possible for the school to maintain a high level of participation and get the community, parents and learners involved:

- ❖ More consideration and greater effort are required to make activities more attractive and enjoyable for all learners, regardless of age, gender, abilities and skills.
- ❖ Some learners do not participate in any physical activities. Schools are in the best possible position to instigate such changes. At the primary school all the necessary human resources are available. Teachers are capable and motivated. Parents and teachers should play the role of physical educators at home and at school. This could lead to increased and ongoing involvement in physical activities.
- ❖ Extra-mural activities should be promoted at the school. The school could arrange for transport from the school to the different clubs on different days. Parents could volunteer, or a post for a suitable person could be created. Involvement and participation of the learners would most probably increase through such an intervention.
- ❖ The low participation level activities identified should either be discontinued or adjusted in order to increase involvement. In view of the feedback that tables 1 and 2 provided, many adjustments could be made to the current programme of the primary school, for example:
  - Tennis, hockey, swimming, soccer and backpacking were very popular with the boys and girls and should, therefore, continue.
  - Cricket and table-tennis were popular with the boys, but should be promoted amongst the girls.
  - Volleyball and dance were under-represented by the boys.
  - Tables 1 and 2 indicate that softball, intro golf and wildlife could be discontinued. The teachers responsible for these activities could be employed usefully in other activities.
- ❖ At the primary school, physical training periods are compulsory. This is the ideal opportunity for teachers to promote sports and educate learners about all the benefits (health, social, individual), rules and values that enhance the sporting experience. Learners should learn about fair play, honesty and positive attitudes.

Parents, teachers and coaches should incorporate the principles of good sportsmanship and having fun, and not only reward children for winning.

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