

CHAPTER IV

RESULTS AND INTERPRETATIONS

4.0 Introduction

The aim of this study was to investigate the attitudes of female secondary school students age 16, towards physical activity in relationship to their academic fields of study and athletic involvement in school. The Kenyon Attitude toward Physical Activity (ATPA) Inventory was used to obtain the six sub-domains; (i) social (ii) health and fitness; (iii) pursuit of vertigo; (iv) aesthetic; (v) catharsis; (vi) ascetic; of attitude of the students. Data collected was analyzed with the aid of the Statistical Package for the Social Sciences (SPSS) For Windows Made Simple Version 7.5 and is reported in this present chapter with regard to the following research questions;

- (a) What are the students' attitudes toward physical activity in the following six perceived sub-domains?
 - (i) physical activity as an aesthetic experience;
 - (ii) physical activity as catharsis;
 - (iii) physical activity as the pursuit of vertigo;
 - (iv) physical activity for health and fitness;
 - (v) physical activity as a social experience;
 - (vi) physical activity as an ascetic experience.

(b) Do students in different academic fields of study differ significantly in their attitudes toward physical activity with regard to the following six perceived sub-domains?

- (i) physical activity as an aesthetic experience;
- (ii) physical activity as catharsis;
- (iii) physical activity as the pursuit of vertigo;
- (iv) physical activity for health and fitness;
- (v) physical activity as a social experience;
- (vi) physical activity as an ascetic experience.

(c) Do athletic students differ significantly in their attitudes toward physical activity from non-athletic students in terms of the six sub-domains listed below?

- (i) physical activity as an aesthetic experience;
- (ii) physical activity as catharsis;
- (iii) physical activity as the pursuit of vertigo;
- (iv) physical activity for health and fitness;
- (v) physical activity as a social experience;
- (vi) physical activity as an ascetic experience.

The Kenyon multi-dimensional attitude inventory (ATPA), used in measuring attitude was used in determining the six sub-domains of attitude

scores. Descriptive statistics on the present findings were derived based on the scoring system and cut-off points set up for each of the six sub-domains.

Results and interpretations based on the analysis of data are shown as follows:

- (a) Descriptive statistics (frequency distribution, means and standard deviations of the six sub-domains) of the Six ATPA Scores of the entire sample.
- (b) Descriptive statistics (frequency distribution, means and standard deviations of the six sub-domains) of the Kenyon ATPA Scores of the Arts and Science Students.
- (c) A comparison of the six sub-domain mean attitudinal scores between the Arts and Science students.
- (d) Descriptive statistics (frequency distribution, means and standard deviations of the six sub-domains) of the Kenyon ATPA scores of the athletes and Non-athletes.
- (e) A comparison of the six sub-domain mean attitudinal scores between the athletes and non-athletes.
- (f) Hypotheses testing of Attitude differences between Arts and Science students.
- (g) Hypotheses testing of Attitude differences between Athletes and Non-athletes.

4.1 (a) Descriptive Statistics (Frequency Distribution, Means and Standard Deviations of the Six sub-domains) of the Kenyon ATPA Scores of the Entire Sample (N=166)

In the Kenyon ATPA questionnaire, each of the sub-domains has a different number of statements as follows; aesthetic (9 items), catharsis (9 items), vertigo (9 items), health and fitness (11 items), social (8 items) and ascetic (8 items) respectively. The responses towards each item by the respondents were indicated on a five-point Likert Scale and expressed as 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'. Since each sub-domain has a different number of items, the range of overall scores for each sub-domain would also be different for each respondent. Therefore, cut-off points for overall scores in each sub-domain were calculated by adopting the rationale and scoring system suggested by Choong (1991) in his study. In the following example with the use of the aesthetic sub-domain, using the Likert scale of 1 to 5, each respondent would be able to produce a score of between 9 and 45 since there were altogether 9 statements in the aesthetic sub-domain to be answered. Dividing this range of 36 (45 minus 9) into five equal parts of 7.2 points each, then the lowest possible individual score for the aesthetic sub-domain would be 16.2 points. Therefore, with an increment of 7.2 points the next cut-off point would then be 23.4 and so forth until the highest point of 37.8 is determined (see Table 4.1). With that a total score of more than 37.8 and less than and equal to 45.0 represents very favourable attitude; more than 30.6 and less than and equal to 37.8 was

favourable; more than 23.4 and less than and equal to 30.6 was neutral; more than 16.2 and less than and equal to 23.4 was very unfavourable; and less than 16.2 was very unfavourable on the aesthetic sub-domain. Scores above the neutral range scores constitute positive attitude and below constitute negative attitude.

Table 4.1

Distribution of Cut-off Points for Individual Scores of Attitude based on the Aesthetic Sub-domain (Has 9 items)

Rating	Direction of Attitude	Cut-off Points
5	Very favourable	Score > 37.8
4	Favourable	Score ≤ 37.8 but > 30.6
3	Undecided / Neutral	Score ≤ 30.6 but > 23.4
2	Unfavourable	Score ≤ 23.4 but > 16.2
1	Very unfavourable	Score ≤ 16.2

Likewise the cut-off points for individual scores for social and health and fitness sub-domains were computed using the same procedure mentioned as shown in Tables 4.2 and 4.3 respectively. The catharsis and vertigo sub-domains share the same cut-off points as the aesthetic sub-domain because of the same number of items 9 in the three sub-domains. The ascetic sub-domain shares the same cut-off points as the social sub-domain also because of the same number of items 8 in these two sub-domains.

Table 4.2

Distribution of Cut-off Points for Individual Scores of Attitude based on the Social Sub-domain (Has 8 items)

Rating	Direction of Attitude	Cut-off Points
5	Very favourable	Score > 33.6
4	Favourable	Score ≤ 33.6 but > 27.2
3	Undecided / Neutral	Score ≤ 27.2 but > 20.8
2	Unfavourable	Score ≤ 20.8 but > 14.4
1	Very unfavourable	Score ≤ 14.4

Table 4.3

Distribution of Cut-off Points for Individual Scores of Attitude based on the Health and Fitness Sub-domain (Has 11 items)

Rating	Direction of Attitude	Cut-off Points
5	Very favourable	Score > 46.2
4	Favourable	Score ≤ 46.2 but > 37.4
3	Undecided / Neutral	Score ≤ 37.4 but > 28.6
2	Unfavourable	Score ≤ 28.6 but > 19.8
1	Very unfavourable	Score ≤ 19.8

Table 4.4

Frequency Distribution of Scores, Mean & Standard deviation of the entire group of Subjects (N=166) Toward Physical Activity based on the Aesthetic, Catharsis & Vertigo Sub-domains

Cut-off Points / Direction of attitude	Frequency / Percent		
	Aesthetic	Catharsis	Vertigo
Score > 37.8 Very favourable	11 (6.6%)	5 (3.0)	3 (1.81%)
Score ≤ 37.8 but > 30.6 Favourable	76 (45.8%)	94 (56.63%)	42 (25.3%)
Score ≤ 30.6 but > 23.4 Undecided / Neutral	70 (42.2%)	64 (38.6%)	107 (64.5%)
Score ≤ 23.4 but > 16.2 Unfavourable	9 (5.4%)	3 (1.8%)	14 (8.4%)
Score ≤ 16.2 Very unfavourable	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total (N)	166 (100%)	166 (100%)	166 (100%)
Mean	30.75	31.16	28.21
Standard deviation	4.31	3.64	3.70

In this study, a total of 166 students responded to the study. As shown in Table 4.4, the response of the entire group of students toward the aesthetic is reported as follows (Choong, 1991). Of 166 students, eleven (n=11, 6.6%) students expressed very favourable attitude toward the aesthetic sub-domain. Seventy-six (n=76, 45.8%) students had their mean scores within the favourable attitude range. As such, a total of 87 (n=87, 52.4%) students out of 166, indicated positive attitude toward the aesthetic sub-domain. Findings also indicated that of 166 students, 70 (n=70, 42.2%) students did not express their attitude whether they were positive or negative towards physical activity as an aesthetic experience in this present study. However, there was also an

indication of nine ($n=9$, 5.4%) students who did not favour the aesthetic sub-domain. Table 4.4 also showed that none of the scores of the entire group of students ($N=166$) toward aesthetic was found in the very unfavourable attitude zone. The overall aesthetic mean score obtained by the whole group ($N=166$) was 30.75 with a standard deviation of 4.31.

In Table 4.4, frequency distribution of the students' response toward catharsis showed that five ($n=5$, 3.0%) students showed very favourable attitude towards physical activity as a cathartic function. A total of 94 ($n=94$, 56.6%) students out of the 166 students showed favourable attitude toward the cathartic function of physical activity. In other words, of 166 students, 99 ($n=99$, 59.6%) students showed positive attitude towards the relaxation-recreation value of physical activity. Sixty-four ($n=64$, 38.6%) students indicated that they were neutral toward the sub-domain mentioned. However, there were three ($n=3$, 1.8%) students who indicated negative attitude towards catharsis. No student from the entire group ($N=166$) showed very unfavourable attitude toward catharsis. The overall catharsis mean score obtained by the entire group was 31.16 with a standard deviation of 3.64 as shown in the table.

The frequency distribution of the students' scores toward the pursuit of vertigo as indicated in Table 4.4, showed that of the 166 students, three ($n=3$, 1.8%) students expressed very favourable attitude toward it. Forty-two ($n=42$,

25.3%) students indicated favourable attitude towards the vertigo sub-domain. In other words, only 45 (n=45, 27.1%) students from the whole group of 166 students, showed positive attitude towards the thrill and excitement sub-domain of physical activity. A total of one 107 (n=107, 64.5%) students were neutral towards the sub-domain who in other words did not express whether they were positive or negative towards the vertigo sub-domain. However, there were 14 (n=14, 8.4%) students who did not favour the pursuit of vertigo sub-domain. Of the 166 subjects, no student indicated very unfavourable attitude toward the pursuit of vertigo as can be seen from the findings in the table. The overall vertigo mean score obtained by the entire group of students (N=166) was 28.21 with a standard deviation of 3.70.

Findings of the students' attitude toward the health and fitness sub-domain as shown in Table 4.5, showed that no student from the entire group (N=166) indicated very favourable attitude towards health and fitness but there were 57 (n=57, 34.3%) students who indicated favourable attitude towards it. As such, only 57 (34.3%) students out of the entire group of students of 166 showed positive attitude towards health and fitness in physical activity. Table 4.5 also showed 97 (n=97, 58.5%) of the students were neutral as they did not express whether they positively or negatively favoured the health and fitness value of physical activity. However, there were 12 (n=12, 7.2%) students who responded unfavourable towards the sub-domain of health and fitness. No student from the entire group (N=166) indicated very unfavourable attitude

toward health and fitness. The overall health and fitness mean score scored by the entire group (N=166) was 35.36 with a standard deviation of 4.28.

Table 4.5

Frequency Distribution of Scores, Mean & Standard deviation of the entire group of Subjects (N=166) Toward Physical Activity based on the Health & Fitness Sub-domain

Cut-off Points / Direction of attitude	Frequency / Percent
Score > 46.2 Very favourable	0 (0.0%)
Score ≤ 46.2 but > 37.4 Favourable	57 (34.3%)
Score ≤ 37.4 but > 28.6 Undecided / Neutral	97 (58.5%)
Score ≤ 28.6 but > 19.8 Unfavourable	12 (7.2%)
Score ≤ 19.8 Very unfavourable	0 (0.0%)
Total (N)	166 (100%)
Mean	35.36
Standard deviation	4.28

Table 4.6

Frequency Distribution of Scores, Mean & Standard deviation of the entire group of Subjects (N=166) Toward Physical Activity based on the Social & Ascetic Sub-domains

Cut-off Points / Direction of attitude	Frequency / Percent	
	Social	Ascetic
Score > 33.6 Very favourable	15 (9.1%)	20 (12.1%)
Score ≤ 33.6 but > 27.2 Favourable	90 (54.2%)	84 (50.6%)
Score ≤ 27.2 but > 20.8 Undecided / Neutral	57 (34.3%)	56 (33.7%)
Score ≤ 20.8 but > 14.4 Unfavourable	4 (2.4%)	6 (3.6%)
Score ≤ 14.4 Very unfavourable	0 (0.0%)	0 (0.0%)
Total (N)	166 (100%)	166 (100%)
Mean	28.70	28.48
Standard deviation	3.87	4.31

As shown in Table 4.6 above, the frequency distribution of students' scores toward the social sub-domain, indicated a total of 15 (n=15, 9.1%) students from the entire group (N=166) had very favourable attitude while 90 (n=90, 54.2%) students indicated favourable attitude towards it. All together there were 105 (n=105, 63.3%) students who expressed positive attitude towards the social value in physical activity. Table also showed that there were 57 (n=57, 34.3%) students who did not express themselves toward the social sub-domain when they indicated an undecided attitude towards it. However, there were four (n=4, 2.4%) students who did not favour the social sub-domain. None of the social mean scores of the students was found in the very unfavourable attitude range. The overall social mean score obtained by

the entire group of students (N=166) was 28.70 with a standard deviation of 3.87.

Table 4.6, which showed the frequency distribution of students' scores toward the ascetic sub-domain, indicated that 20 (n=20, 12.1%) students from the entire group (N=166) indicated very favourable attitude towards the sub-domain. Another 84 (n=84, 50.6%) students indicated that they favoured the ascetic sub-domain. All together there were 104 (n=104, 62.8%) students who expressed positive attitude towards the physical challenge of physical activity as shown in the table. There was an indication of 56 (n=56, 33.7%) students who did not express their attitude towards the ascetic sub-domain as they stand undecided towards it. However, there were six (n=6, 3.6%) students who did not favour the ascetic value of physical activity. None from the entire group of students (N=166) indicated very unfavourable attitude towards the sub-domain. The overall ascetic mean score of the entire group (N=166) obtained was 28.48 with a standard deviation of 4.31.

4.1.1 (a) Summary

In this present study, 166 students responded toward the study. The scores from the entire group of students toward the aesthetic sub-domain showed that 87 (n=87, 52.4%) students showed positive attitude toward the sub-domain. The overall aesthetic mean score scored by the entire students was 30.75 with a standard deviation of 4.31; indicating that the students

generally favoured the aesthetic domain. As for the catharsis sub-domain, a total of 99 ($n=99$, 59.6%) students had positive attitude toward it. The overall catharsis mean score obtained by the entire group of students ($N=166$) was 31.16 with a standard deviation of 3.64, which indicated that the students in general also favoured the catharsis sub-domain. Findings on the pursuit of vertigo sub-domain indicated that only 45 ($n=45$, 27.1%) of the students indicated a positive attitude toward it. The overall vertigo mean score obtained by the entire group of students ($N=166$) was 28.21 with a standard deviation of 3.70, which showed that in general the students were neutral toward it. In the health and fitness sub-domain, 57 ($n=57$, 34.3%) students from the entire group indicated a positive disposition towards it. Overall health and fitness mean score scored by the whole group ($N=166$) was 35.36 with a standard deviation of 4.28; which indicated that, generally, all the students showed a neutral attitude toward the health and fitness sub-domain. In the social sub-domain, a total of 105 ($n=105$, 63.3%) students out of the whole group of 166 were positive toward the sub-domain. The overall social mean score scored by the entire group of students ($N=166$) was 28.70 with a standard deviation of 3.87, which showed that the students in general were positive toward the social domain. In the ascetic sub-domain, 104 ($n=104$, 62.7%) students expressed positively toward it. The overall ascetic mean score obtained by the entire group of students ($N=166$) was 28.48 with a standard deviation of 4.31; indicating that the entire group in general showed a positive attitude toward the physical challenges in physical activities.

4.1 (b) Descriptive Statistics (Frequency Distribution, Means and Standard Deviations of the Six Sub-domains) of the Kenyon ATPA Scores of the Arts and Science Students

Table 4.7

Frequency Distribution of Scores, Mean & Standard deviation of the Arts and Science students Toward Physical Activity based on the Aesthetic, Catharsis & Vertigo Sub-domains

Cut-off Points / Direction of attitude	Frequency / Percent					
	Aesthetic		Catharsis		Vertigo	
	Arts	Science	Arts	Science	Arts	Science
Score > 37.8 Very favourable	5 (4.9%)	6 (9.4%)	4 (3.9%)	1 (1.6%)	2 (2.0%)	1 (1.6%)
Score ≤ 37.8 but > 30.6 Favourable	49 (48.0%)	27 (42.2%)	57 (55.9%)	37 (57.8%)	20 (19.6%)	22 (34.3%)
Score ≤ 30.6 but > 23.4 Undecided / Neutral	41 (40.2%)	29 (45.3%)	38 (37.3%)	26 (40.6%)	67 (65.7%)	40 (62.5%)
Score ≤ 23.4 but > 16.2 Unfavourable	7 (6.9%)	2 (3.1)	3 (2.9%)	0 (0%)	13 (12.7%)	1 (1.6%)
Score ≤ 16.2 Very unfavourable	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total (N)	102	64	102	64	102	64
Mean	30.52	31.11	31.09	31.27	27.62	29.16
Standard deviation	4.38	4.19	3.92	3.16	3.59	3.71

The academic fields of study of the 166 students showed that there were 102 (n=102, 61.4%) Arts students and 64 (n=64, 38.6%) Science students in this present study. Table 4.7 showed that there were five (n=5, 4.9%) Arts and six (n=6, 9.4%) Science students who showed very favourable attitude towards the aesthetic sub-domain. Of 102 Arts students, 49 (n=49, 48.0%) students and 27 (n=27, 42.2%) Science students showed favourable

attitude towards the aesthetic sub-domain in physical activity. As such a total of 54 (n=54, 52.9%) of the Arts students while 33 (n=33, 51.6%) Science students had positive attitudes towards the aesthetic value in physical activity. Forty-one (n=41, 40.2%) of the Arts students and 29 (n=29, 45.3%) of the Science students did not indicate their direction of attitude towards aesthetic in physical activity as shown in the table. However, there were only seven (n=7, 6.9%) Arts students compared to two (n=2, 3.1%) Science students who did not favour the aesthetic sub-domain. The overall aesthetic mean scores obtained by the Arts and Science students in the present study were 30.52 and 31.11 with standard deviations of 4.38 and 4.19 respectively.

As indicated in Table 4.7, four (n=4, 3.9%) students from the Arts group while only one (n=1, 1.6%) student from the Science group respectively, showed very favourable attitude towards the cathartic experience found in physical activity. A total of 57 (n=57, 55.9%) out of 102 Arts students and 37 (n=37, 57.8%) out of 64 Science students expressed favourable attitude towards the cathartic function of physical activity. As such, 61 (n=61, 59.8%) of the Arts students compared to 38 (n=38, 59.4%) of the Science students showed positive attitudes towards physical activity as catharsis. Thirty-eight (n=38, 37.3%) students from the Arts group indicated neutral toward catharsis while of 26 (n=26, 40.6%) Science students showed similar response toward the sub-domain. However, there were only three (n=3, 2.9%) Arts students who showed negative attitude toward the catharsis sub-domain but on the

other hand none from the Science group indicated this direction of attitude.

The overall catharsis mean score obtained by the Arts group (N=102) was 31.09 with a standard deviation of 3.92 while the Science (N=64) group scored 31.27 with standard deviations of 3.16 respectively.

There were two (n=2, 2.0%) Arts students who responded with very favourable attitude toward the vertigo sub-domain whereas there was only one (n=1, 1.6%) Science student who indicated likewise as shown in Table 4.7. Also indicating favourable attitude towards the pursuit of vertigo were 20 (n=20, 19.6%) Arts students while of 22 (n=22, 34.3%) were Science students. In comparison, a total of 22 (n=22, 21.6%) Arts students while 23 (n=23, 35.9%) Science students expressed positive attitude towards the thrill and excitement of physical activity. However, a total of 67 (n=67, 65.7%) Arts students as compared to 40 (n=40, 62.5%) Science students showed an undecided attitude towards the pursuit of vertigo. There was also an indication of 13 (n=13, 12.7%) Arts students compared to only one (n=1, 1.6%) science student who expressed their negative attitudes toward the pursuit of vertigo as shown in Table 4.7. The overall vertigo mean score obtained by the Arts group (N=102) was 27.62 with a standard deviation of 3.59 while the Science group (N=64) was 29.16 with standard deviation of 3.71.

Table 4.8

Frequency Distribution of Scores, Mean & Standard deviation of the Arts & Science groups Toward Physical Activity based on the Health & Fitness Sub-domain

Cut-off Points / Direction of attitude	Frequency / Percent	
	Health & Fitness	
	Arts	Science
Score > 46.2 Very favourable	0 (0.0%)	0 (0.0%)
Score ≤ 46.2 but > 37.4 Favourable	33 (32.4%)	24 (37.5%)
Score ≤ 37.4 but > 28.6 Undecided / Neutral	62 (60.7%)	35 (54.7%)
Score ≤ 28.6 but > 19.8 Unfavourable	7 (6.9%)	5 (7.8%)
Score ≤ 19.8 Very unfavourable	0 (0.0%)	0 (0.0%)
Total (N)	102	64
Mean	35.12	35.75
Standard deviation	4.39	4.10

Table 4.8 showed that none of the Arts students (N=102) and Science (N=64) students indicated very favourable attitude toward physical activity for health and fitness although there were 33 (n=33, 32.4%) Arts compared to 24 (n=24, 37.5%) Science students who indicated favourable attitude towards health and fitness. Table 4.8 also indicated that 62 (n=62, 60.7%) Arts compared to 35 (n=35, 54.7%) Science students showed neutral attitude towards the health and fitness value in physical activity. There were seven (n=7, 6.9%) Arts compared to five (n=5, 7.8%) Science students who responded unfavourable towards the health and fitness sub-domain but no

indication from any of the Arts and Science students indicated very unfavourable attitude towards the sub-domain of health and fitness. The overall health and fitness mean scores obtained by both groups were 35.12 by the Arts students (N=102) and 35.75 by the Science students (N=64) with standard deviations of 4.39 and 4.10 respectively.

Table 4.9

Frequency Distribution of Scores, Mean & Standard deviation of the Arts & Science groups Toward Physical Activity based on the Social & Ascetic Sub-domains

Cut-off Points / Direction of attitude	Frequency / Percent			
	Social		Ascetic	
	Arts	Science	Arts	Science
Score > 33.6 Very favourable	10 (9.8%)	5 (7.8%)	12 (11.8%)	8 (12.5%)
Score ≤ 33.6 but > 27.2 Favourable	56 (54.9%)	34 (53.2%)	49 (48.0%)	35 (54.7%)
Score ≤ 27.2 but > 20.8 Undecided / Neutral	34 (33.3%)	23 (35.9%)	38 (37.3%)	18 (28.1%)
Score ≤ 20.8 but > 14.4 Unfavourable	2 (2.0%)	2 (3.1%)	3 (2.9%)	3 (4.7%)
Score ≤ 14.4 Very unfavourable	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total (N)	102	64	102	64
Mean	28.84	28.47	28.18	28.95
Standard deviation	4.04	3.60	4.44	4.09

Table 4.9 showed ten (n=10, 9.8%) Arts compared to five (n=5, 7.8%) Science students indicating very favourable attitude towards the social sub-domain. There was also an indication of 56 (n=56, 54.9%) Arts compared to

34 (n=34, 53.2%) Science students who responded favourably towards the social value in physical activity. There were all together 66 (n=66; 64.7%) Arts students who expressed positive attitude towards physical activity as a social experience compared to 39 (n=39, 61.0%) Science students who indicated likewise. There were 34 (n=34, 33.3%) Arts students while of 23 (n=23, 35.9%) Science students who were neutral towards the social sub-domain of physical activity. However, there were two (n=2, 2.0%) Arts students who indicated unfavourable attitude towards the social sub-domain and likewise there were also two (n=2, 3.1%) Science students who indicated a similar attitude. No students from either the Arts or Science group indicated very unfavourable attitude towards the social sub-domain. The overall social mean scores obtained by the Arts and Science groups were 28.84 and 28.47 each with standard deviations of 4.04 and 3.60 respectively as indicated in the table.

In the ascetic sub-domain as shown in Table 4.9, of 12 (n=12, 11.8%) Arts students compared to eight (n=8, 12.5%) Science students indicated very favourable attitude towards physical activity as physical challenges. Forty-nine (n=49, 48.0%) Arts students as compared to 35 (n=35, 54.7%) Science students indicated favourable attitude towards the ascetic sub-domain. With that there were all together 61 (n=61, 59.8%) Arts students compared to 43 (n=43, 67.2%) Science students who expressed positive attitude towards physical activity as physical challenges. A total of 38 (n=38, 37.3%) Arts and

18 (n=18, 28.1%) Science students showed neutral attitude towards the physical challenges found in physical activity. Although no students from both groups indicated very unfavourable attitude towards the ascetic sub-domain, there were only three (n=3, 2.9%) students who showed unfavourable attitude toward it. There were also only three (n=3, 4.7%) Science students who showed a similar unfavourable attitude towards the ascetic sub-domain. The overall ascetic mean score scored by the Arts students (N=102) was 28.18 with a standard deviation of 4.44 whereas the overall ascetic mean score scored by the Science students (N=64) was 28.95 with a standard deviation of 4.09.

4.1.1 (b) Summary

Of 166 students, 102 (61.4%) were Arts students and 64 (38.6%) were Science students in this present study. Fifty-four (n=54, 52.9%) of the Arts students showed positive attitude toward the aesthetic sub-domain while 33 (n=33, 51.6%) of the science students indicated a similar attitude towards it. The Arts group of students scored an aesthetic mean score of 30.52 with a standard deviation of 4.38 compared to the Science group of students who scored a mean of 31.11 with a standard deviation of 4.19. Findings also indicated that a total of 61 (n=61, 59.8%) of the Arts students showed positive attitude toward the catharsis sub-domain in physical activity while thirty-eight (n=38, 59.4%) Science students indicated likewise. The catharsis mean score and standard deviation scored by the Arts students (N=102) were 31.09 and

3.92 compared to those by the Science students ($N=64$) which were 31.27 and 3.16. In the vertigo sub-domain, 22 ($n=22$, 21.6%) Arts students expressed positive attitude toward it while 23 ($n=23$, 35.9%) Science students expressed likewise. The vertigo mean score scored by the whole group of Arts students was 27.62, with a standard deviation of 3.59 while the entire group of Science students scored 29.16 with a standard deviation of 3.71. For the health and fitness sub-domain, 33 ($n=33$, 32.4%) Arts students indicated positive attitude towards it while 24 ($n=24$, 37.5%) Science students indicated likewise. The health and fitness mean score scored by the entire group of Arts students was 35.12 with a standard deviation of 4.39 while the Science students scored 35.75 with a standard deviation of 4.10. In comparing the social sub-domain between the Arts and Science groups, sixty-six ($n=66$, 64.7%) students from the former group indicated positive attitude towards the social domain; while thirty-nine ($n=39$, 61.0%) from the latter group indicated likewise. The social mean score obtained by the Arts students was 28.84 with a standard deviation of 4.04 while the Science students obtained 28.47 with a standard deviation of 3.60. Response towards the ascetic sub-domain indicated that there were 61 ($n=61$, 59.8%) Arts students who showed positive attitude toward the ascetic sub-domain while 43 ($n=43$, 67.2%) Science students did likewise. The ascetic mean score scored by the Arts group was 28.18 with a standard deviation of 4.44 while the Science group scored 28.95 with a standard deviation of 4.09.

4.1 (c) A Comparison of the Six Sub-domain Mean Attitudinal Scores Between the Arts (N=102) and Science (N=64) Students:

T-Test analysis on the Mean Scores of the Six Sub-domains between the Arts (N=102) and Science (N=64) Students

An analysis of the six attitudinal mean scores of the Arts (N=102) and Science (N=64) students was carried out to determine whether differences exist between the mean scores were significant at 0.05 level of confidence. Results of the analysis are shown as follows.

Table 4.10

Results of the T-test for Mean Difference in the Aesthetic Sub-domain Scores Between Arts (N=102) and Science (N=64) Students

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Aesthetic	Arts	30.52	-0.59	4.38	-0.858	Not significant
	Science	31.11		4.19		

$\alpha = 0.05$

As shown in Table 4.10, in the aesthetic sub-domain, the Arts group had a mean attitude score of 30.52 with a standard deviation of 4.38 while the Science group had a mean score of 31.11 with a standard deviation of 4.19. A t-test on the mean difference between the two groups for the aesthetic sub-domain showed that the t-value of -0.858 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference

between the mean attitude scores of the Arts group and that of the Science group toward the aesthetic sub-domain.

Table 4.11

Results of the T-test for Mean Difference in the Catharsis Sub-domain Scores Between Arts (N=102) and Science (N=64) Students

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Catharsis	Arts	31.09	-0.18	4.44	-0.305	Not significant
	Science	31.27		4.09		

$\alpha = 0.05$

As shown in Table 4.11, in the catharsis sub-domain, the Arts group had a mean attitude score of 31.09 with a standard deviation of 4.44 while the Science group had a mean score of 31.27 with a standard deviation of 4.09. A t-test on the mean difference between the means of the two groups for the catharsis sub-domain showed that the t-value of -0.305 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the Arts group and that of the Science group toward the catharsis sub-domain.

Table 4.12

Results of the T-test for Mean Difference in the Health and Fitness Sub-domain Scores Between Arts (N=102) and Science (N=64) Students

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Health & Fitness	Arts	35.12	-0.63	3.92	-0.926	Not significant
	Science	35.75		3.16		

$\alpha = 0.05$

As shown in Table 4.12, in the health and fitness sub-domain, the Arts group had a mean attitude score of 35.12 with a standard deviation of 3.92 while the Science group had a mean score of 35.75 with a standard deviation of 3.16. A t-test on the mean difference between the two groups for the health and fitness sub-domain showed that the t-value of -0.926 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the Arts group and that of the Science group toward the health and fitness sub-domain.

Table 4.13

Results of the T-test for Mean Difference in the Social Sub-domain Scores Between Arts (N=102) and Science (N=64) Students

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Social	Arts	28.84	0.37	4.39	0.606	Not significant
	Science	28.47		4.10		

$\alpha = 0.05$

As shown in Table 4.13, for the social sub-domain, the Arts group had a mean attitude score of 28.84 with a standard deviation of 4.39 while the Science group had a mean score of 28.47 with a standard deviation of 4.10. A t-test on the mean difference between the two groups for the social sub-domain showed that the t-value of 0.606 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the Arts group and that of the Science group toward the social sub-domain.

Table 4.14

Results of the T-test for Mean Difference in the Vertigo Sub-domain Scores Between Arts (N=102) and Science (N=64) Students

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Vertigo	Arts	27.62	-1.54	4.04	-2.655	Significant
	Science	29.16		3.60		

$\alpha = 0.05$

As shown in Table 4.14, for the vertigo sub-domain, the Arts group had a mean attitude score of 27.62 with a standard deviation of 4.04 while the Science group had a mean score of 29.16 with a standard deviation of 3.60. A t-test on the mean difference between the two groups for the vertigo sub-domain showed that the t-value of -2.655 was significant at 0.05 level of confidence. Hence, the results showed that there was significant difference

between the mean attitude scores of the Arts group and that of the Science group toward the vertigo sub-domain.

Table 4.15

Results of the T-test for Mean Difference in the Ascetic Sub-domain Scores Between Arts (N=102) and Science (N=64) Students

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Ascetic	Arts	28.18	-0.78	3.59	-1.130	Not significant
	Science	28.95		3.71		

$\alpha = 0.05$

As shown in Table 4.15, for the ascetic sub-domain, the Arts group had a mean attitude score of 28.18 with a standard deviation of 3.59 while the Science group had a mean score of 28.95 with a standard deviation of 3.71. A t-test on the mean difference between the two groups for the ascetic sub-domain showed that the t-value of -1.130 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the Arts group and that of the Science group toward the ascetic sub-domain.

4.1.1 (c) Summary

A total of 54 (n=54, 52.9%) Arts students compared to 33

(n=33, 51.6%) Science students showed that they had positive attitude toward the aesthetic sub-domain. The aesthetic mean score scored by the Arts students (N=102) was 30.52 with a standard deviation of 4.38, compared to the Science students' mean score of 31.11 with a standard deviation of 4.19. The Science group showed a better mean score than the Arts group toward the aesthetic sub-domain. In the catharsis sub-domain, 61 (n=61, 59.8%) Arts students expressed that they were positive toward physical activity as a cathartic function while only 38 (n=38, 59.4%) Science students showed likewise. The catharsis mean score scored by the Arts was 31.09 with a standard deviation of 3.92 while the Science students obtained 31.27 with a standard deviation of 3.16. A comparison of the catharsis mean scores between the Arts and Science groups of students thus indicated that the Science students (N=64) scored a higher mean score compared to the Arts group of students (N=102) toward catharsis. Response toward the vertigo sub-domain indicated that of 102 Arts students, only 22 (n=22, 21.6%) Arts students and of 64 Science students, 23 (n=23, 35.9%) Science students were in favour of the pursuit of vertigo in physical activity. The vertigo mean scores obtained by the Arts was 27.62 with a standard deviation of 3.59 while the Science students obtained 29.16 with a standard deviation of 3.71. A comparison of the vertigo mean scores between the Arts and Science groups showed that the Science students (N=64) scored a better mean score toward the vertigo sub-domain than the Arts students (N=102). In the health and fitness sub-domain, there were 33 (n=33, 32.4%) Arts students while 24 (n=24, 37.5%) were Science students who indicated

that they had positive attitude toward health and fitness. The health and fitness mean scores scored by the entire Arts and Science group of students were 35.12 and 35.75 respectively; which indicated that the Science group of students (N=64) on the whole had a better score compared to the Arts students (N=102) toward health and fitness. The Arts group scored a standard deviation of 4.39 while the Science group scored 4.10 toward the health and fitness sub-domain. In the social sub-domain, of 66 (n=66, 64.7%) Arts students showed positive attitude towards the social value while 39 (n=39, 61.0%) Science students indicated likewise. The Arts students obtained a social mean score of 28.84 while the Science students scored 28.47; which indicated that the Arts students (N=102) in general had a better social mean score than the entire group of Science students (N=64). The standard deviation obtained by the Arts group showed 4.04 while the Science group obtained 3.60 toward the social sub-domain. In the ascetic sub-domain, 61 (n=61, 59.8%) Arts students showed positive attitude toward the ascetic sub-domain while 43 (n=43, 67.2%) Science students showed likewise. The ascetic mean scores obtained by the Arts students was 28.18 with a standard deviation of 4.44 while the Science students scored 28.95 with a standard deviation of 4.09. A comparison of the ascetic mean scores between the Arts (28.18) and Science (28.95) groups thus indicated that the Science students (N=64) had a better score toward ascetic than the Arts students as a whole (N=102).

A comparison of the six mean scores of the Arts and Science groups towards each sub-domain indicated that a significant difference existed between the Arts and Science students attitude toward physical activity as the pursuit of vertigo or in other words for the pursuit of excitement and thrills. The result also indicated that the Science students scored a more significant score toward the vertigo sub-domain than the Arts students. No significant differences were found between the mean scores of the following sub-domains of aesthetic, catharsis, health and fitness, social and ascetic between the Arts (N=102) and Science (N=64) students in this present study.

4.1 (d) Descriptive Statistics (Frequency Distribution, Means and Standard Deviations of the Six sub-domains) of the Kenyon ATPA Scores of the Athletes and Non-athletes

Table 4.16

Frequency Distribution of Scores, Mean & Standard deviation of the Athletes & Non-athletes Toward Physical Activity based on the Aesthetic, Catharsis & Vertigo Sub-domains

Cut-off Points / Direction of attitude	Frequency / Percent					
	Aesthetic		Catharsis		Vertigo	
	Athletes	Non-athletes	Athletes	Non-athletes	Athletes	Non-athletes
Score > 37.8 Very favourable	3 (5.0%)	8 (7.5%)	1 (1.7%)	4 (3.8%)	1 (1.7%)	2 (1.9%)
Score ≤ 37.8 but > 30.6 Favourable	29 (48.4%)	47 (44.4%)	28 (46.7%)	66 (62.3%)	17 (28.3%)	25 (23.6%)
Score ≤ 30.6 but > 23.4 Undecided / Neutral	26 (43.3%)	44 (41.5%)	31 (51.6%)	33 (31.1%)	39 (65.0%)	68 (64.1%)
Score ≤ 23.4 but > 16.2 Unfavourable	2 (3.3%)	7 (6.6%)	0 (0.0%)	3 (2.8%)	3 (5.0%)	11 (10.4%)
Score ≤ 16.2 Very unfavourable	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total (N)	60	106	60	106	60	106
Mean	30.65	30.80	30.95	31.27	28.53	28.03
Standard deviation	3.87	4.56	3.57	3.69	3.51	3.81

In this present study, 60 (N=60, 36.1%) students were athletes and 106 (N=106, 63.8%) students were non-athletes, who were taken as subjects. Table 4.16 showed the responses towards the aesthetic, catharsis and ascetic sub-domains found in physical activity from the athletes (N=60) and non-athletes (N=106) in this present study.

From Table 4.16, results of the students' scores toward the aesthetic showed that only three (5.0%) athletes indicated very favourable towards the aesthetic sub-domain while eight (n=8, 7.5%) non-athletes likewise. Response from the athletes showed that 29 (n=29, 7.5%) athletes responded very favourably towards the aesthetic sub-domain while 47 (n=47, 44.4%) non-athletes showed likewise attitude towards it. Twenty-six (43.3%) athletes while 44 (n=44, 41.5%) non-athletes indicated that they were neutral towards the aesthetic sub-domain. From the athlete group, only two (n=2, 3.3%) students indicated unfavourable attitude and none indicated very unfavourable towards aesthetic compared to the non-athlete group, of seven (n=7, 6.6%) non-athletes showed unfavourable attitude and similarly none from this group showed very unfavourable attitude toward the aesthetic sub-domain as shown in the table.

As indicated in Table 4.16, frequency distribution of students' scores toward catharsis showed that there was only one (n=1, 1.7%) athlete who expressed very favourable attitude towards the cathartic value in physical activity while four (n=4, 3.8%) non-athletes indicated likewise toward the sub-domain. Twenty-eight (n=28, 46.7%) athletes indicated favourable attitude toward catharsis while 66 (n=66, 62.3%) non-athletes indicated likewise towards the catharsis sub-domain. An indication of 31 (n=31, 51.6%) athletes compared to 33 (n=33, 31.1%) non-athletes showed neutral toward catharsis. No athlete responded unfavourably towards the catharsis value but only three

(n=3, 2.8%) non-athletes responded unfavourably. Neither of the athletes nor the non-athletes showed very unfavourable attitude towards the catharsis in physical activity as shown in the table.

Attitudinal scores of the students toward the pursuit of vertigo as shown in Table 4.16 showed that only one (n=1, 1.7%) athlete showed very favourable attitude toward it while two (28.3%) non-athletes indicated similar attitude toward the sub-domain. Seventeen (n=17, 28.3%) athletes indicated favourable while 25 (n=25, 23.6%) non-athletes indicated favourable attitude toward the sub-domain. Showing neutral attitude toward vertigo were 39 (n=39, 65.0%) athletes compared to 68 (n=68, 64.1%) non-athletes who indicated likewise. There were three (n=3, 5.0%) athletes who did not favour the vertigo sub-domain compared to 11 (n=11, 10.4%) non-athletes who indicated likewise toward the pursuit of vertigo. Neither of the athletes nor non-athletes showed very unfavourable attitude toward the vertigo sub-domain.

Table 4.17

Frequency Distribution of Scores, Mean & Standard deviation of the Athletes & Non-athletes Toward Physical Activity based on the Health & Fitness Sub-domain

Cut-off Points / Direction of attitude	Frequency / Percent	
	Health & Fitness	
	Athletes	Non-athletes
Score > 46.2 Very favourable	0 (0.0%)	0 (0.0%)
Score ≤ 46.2 but > 37.4 Favourable	25 (41.7%)	32 (30.2%)
Score ≤ 37.4 but > 28.6 Undecided / Neutral	35 (58.3%)	62 (58.5%)
Score ≤ 28.6 but > 19.8 Unfavourable	0 (0.0%)	12 (11.3%)
Score ≤ 19.8 Very unfavourable	0 (0.0%)	0 (0.0%)
Total (N)	60	106
Mean	36.18	34.90
Standard deviation	3.71	4.52

As shown in Table 4.17 frequency distribution of the students' scores towards health and fitness sub-domain showed that neither of the students from the athlete group (N=60) nor the non-athlete (N=106) group indicated very favourable attitude toward physical activity for health and fitness. A total of 25 (n=25, 41.7%) athletes while a total of 32 (n=32, 30.2%) non-athletes expressed that they favoured the health and fitness sub-domain. Thirty-five (n=35, 58.3%) athletes showed neutral attitude compared to 62 (n=62, 58.5%) non-athletes who showed likewise attitude toward health and fitness. No athletes showed unfavourable attitude toward health and fitness whereas there

were 12 (n=12, 11.3%) non-athletes who indicated unfavourable attitude toward the sub-domain.

Table 4.18

Frequency Distribution of Scores, Mean & Standard deviation of the Athletes & Non-athletes Toward Physical Activity based on the Social & Ascetic Sub-domains

Cut-off Points / Direction of attitude	Frequency / Percent			
	Social		Ascetic	
	Athletes	Non-athletes	Athletes	Non-athletes
Score > 33.6 Very favourable	8 (13.3%)	7 (6.6%)	7 (11.7%)	13 (12.3%)
Score ≤ 33.6 but > 27.2 Favourable	37 (61.7%)	53 (50.0)	36 (60.0%)	48 (45.3%)
Score ≤ 27.2 but > 20.8 Undecided / Neutral	15 (25.0%)	42 (39.6%)	14 (23.3%)	42 (39.6)
Score ≤ 20.8 but > 14.4 Unfavourable	0 (0.0%)	4 (3.8%)	3 (5.0%)	3 (2.8%)
Score ≤ 14.4 Very unfavourable	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total (N)	60	106	60	106
Mean	29.90	28.02	29.03	28.16
Standard deviation	3.59	3.87	3.95	4.49

Frequency distribution of students' scores toward social as shown in Table 4.18 showed that eight (n=8, 13.3%) athletes compared to seven (n=7, 6.6%) non-athletes showed very favourable attitude the social sub-domain. Thirty-seven (n=37, 61.7%) athletes while of 53 (n=53, 50.0%) non-athletes

indicated favourable attitude toward physical activity as a social experience. Responding neutral toward the social value were 15 ($n=15$, 25.0%) athletes compared to 42 ($n=42$, 39.6%) who were non-athletes. None of the athletes indicated unfavourable attitude toward the social value whereas four ($n=4$, 3.8%) non-athletes showed that they did not favour the social value. No athletes or non-athletes indicated very unfavourable attitude toward the social sub-domain.

Response of the students toward the ascetic sub-domain as shown in Table 4.18 showed that seven ($n=7$, 11.7%) athletes indicated very favourable attitude toward the physical challenges offered in physical activity compared to 13 ($n=13$, 12.3%) non-athletes who indicated likewise. Thirty-six ($n=36$, 60%) athletes were in favour of the social value whereas from the non-athlete group only 48 ($n=48$, 45.3%) non-athletes indicated likewise. There were 14 ($n=14$, 23.3%) athletes compared to 42 ($n=42$, 39.6%) non-athletes who showed neutral attitude toward the ascetic sub-domain. Three ($n=3$, 5.0%) athletes and three ($n=3$, 2.8%) non-athletes indicated unfavourable attitude toward the ascetic sub-domain while no one from either group showed very unfavourable attitude toward physical activity as an ascetic experience in this study.

4.1.1 (d) Summary

Of 166 students, 60 students were athletes and 106 students were non-athletes in this present study. Response towards the aesthetic sub-domain showed that there were 32 ($n=32$, 53.4%) athletes who responded positive towards the sub-domain while 55 ($n=55$, 51.9%) non-athletes did likewise. The aesthetic mean score obtained by the athletes was 30.65 with a standard deviation of 3.87 while the non-athletes scored 30.80 with a standard deviation of 4.56. Students' response toward the catharsis sub-domain indicated that twenty-nine ($n=29$, 48.4%) athletes were positive toward the cathartic value while 70 ($n=70$, 66.1%) non-athletes showed likewise. The athletes scored 30.95 with a standard deviation of 3.57 toward catharsis while the non-athletes scored 31.27 with a standard deviation of 3.69. Response from the students towards the vertigo sub-domain showed that only 18 ($n=18$, 30.0%) athletes compared to 27 ($n=27$, 25.5%) non-athletes indicated that they had positive attitudes toward the vertigo sub-domain. The vertigo mean score of the athletes showed 28.53 with a standard deviation of 3.51 while the non-athletes obtained 28.03 with a standard deviation of 3.81 respectively. In the health and fitness sub-domain 25 ($n=25$, 41.7%) athletes expressed positive attitude toward health and fitness compared to 32 ($n=32$, 30.2%) non-athletes whose attitude scores showed likewise. The athletes ($N=60$) as a group scored a mean of 36.18 with a standard deviation of 3.71 toward health and fitness while the non-athletes ($N=106$) as a group scored 34.90 with a standard deviation of

4.52. Forty-five ($n=45$, 75.0%) athletes showed positive attitude toward the social value while from the non-athletes group only 60 ($n=60$, 56.6%) showed similar attitude toward the social sub-domain. The social mean score of the athletes as a group was 29.90 with a standard deviation of 3.59 compared to the non-athletes' score of 28.02 and a standard deviation of 3.87. In the ascetic sub-domain 43 ($n=43$, 71.7%) athletes responded with positive attitude toward the physical challenges in physical activity compared to 61 ($n=61$, 57.6%) non-athletes who indicated likewise. The athletes ($N=60$) scored a mean score of 29.03 with a standard deviation of 3.95 compared to the non-athletes who had a mean score of 28.16 with a standard deviation of 4.49 toward the ascetic sub-domain.

4.1 (e) **A Comparison of the Six Mean Attitudinal Scores Between the Athletes ($N=60$) and Non-athletes ($N=106$):**

T-Test Analysis on the Mean Scores of the Six Attitudinal Sub-domains Between the Athletes ($N=60$) and Non-Athletes ($N=106$)

An analysis of the six attitudinal overall mean scores of the athletes and non-athletes was carried out to determine whether differences exist between the mean scores were significant at 0.05 level of confidence. Results of the analysis are shown as follows.

Table 4.19

Results of the T-test for Mean Difference in the Aesthetic Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Aesthetic	Athletes	30.65	-0.15	3.87	-0.218	Not significant
	Non-athletes	30.80		4.56		

$\alpha = 0.05$

As shown in Table 4.19, for the aesthetic sub-domain, the athletes had a mean attitude score of 30.65 with a standard deviation of 3.87 while the non-athletes had a mean score of 30.80 with a standard deviation of 4.56. A t-test on the mean difference between the two groups for the aesthetic sub-domain showed that the t-value of -0.218 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the aesthetic sub-domain.

Table 4.20

Results of the T-test for Mean Difference in the Catharsis Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Catharsis	Athletes	30.95	-0.32	3.57	-0.549	Not significant
	Non-athletes	31.27		3.69		

$\alpha = 0.05$

As shown in Table 4.20, for the catharsis sub-domain, the athletes had a mean attitude score of 39.65 with a standard deviation of 3.57 while the non-athletes had a mean score of 31.27 with a standard deviation of 3.69. A t-test on the mean difference between the two groups for the catharsis sub-domain showed that the t-value of -0.549 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the catharsis sub-domain.

Table 4.21

Results of the T-test for Mean Difference in the Health and Fitness Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Health & Fitness	Athletes	36.18	1.29	3.71	1.876	Not significant
	Non-athletes	34.90		4.52		

$\alpha = 0.05$

As shown in Table 4.21, for the health and fitness sub-domain, the athletes had a mean attitude score of 36.18 with a standard deviation of 3.71 while the non-athletes had a mean score of 34.90 with a standard deviation of 4.52. A t-test on the mean difference between the two groups for the health and fitness sub-domain showed that the t-value of 1.876 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the health and fitness sub-domain.

Table 4.22

Results of the T-test for Mean Difference in the Social Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Social	Athletes	29.90	1.88	3.59	3.087	Significant
	Non-athletes	28.02		3.87		

$\alpha = 0.05$

As shown in Table 4.22, for the social sub-domain, the athletes had a mean attitude score of 29.90 with a standard deviation of 3.59 while the non-athletes had a mean score of 28.02 with a standard deviation of 3.87. A t-test on the mean difference between the two groups for the social sub-domain showed that the t-value of 3.087 was significant at 0.05 level of confidence.

Hence, the results showed that there was significant difference between the mean attitude scores of the athletes and that of the non-athletes for the social sub-domain.

Table 4.23

Results of the T-test for Mean Difference in the Vertigo Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Vertigo	Athletes	28.53	0.51	3.51	0.844	Not significant
	Non-athletes	28.03		3.81		

$\alpha = 0.05$

As shown in Table 4.23, the athletes (N=60) had a vertigo mean score of 28.53 with a standard deviation of 3.51 while the non-athletes (N=106) had a vertigo mean score of 28.03 with a standard deviation of 3.81. A t-test on the mean difference between the two groups for the vertigo sub-domain showed that the t-value of 0.844 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the vertigo sub-domain.

Table 4.24

Results of the T-test for Mean Difference in the Ascetic Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Ascetic	Athletes	29.03	0.87	3.95	1.255	Not significant
	Non-athletes	28.16		4.49		

$\alpha = 0.05$

As shown in Table 4.24, for the ascetic sub-domain, the athletes had a mean attitude score of 29.03 with a standard deviation of 3.95 while the non-athletes had a mean score of 28.16 with a standard deviation of 4.49. A t-test on the mean difference between the two groups for the ascetic sub-domain showed that the t-value of 1.255 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the ascetic sub-domain.

4.1.1 (e) Summary

In this present study of 166 students, 60 were athletes and 106 were non-athletes. The aesthetic mean score obtained by the athletes was 30.65 with a standard deviation of 3.87 while the non-athletes scored 30.80 with a standard deviation of 4.56, which indicated that the non-athletes on the whole had a better score than the entire group of athletes toward the aesthetic sub-

domain. The catharsis mean scores of 30.95 by the athletes and 31.27 by the non-athletes respectively which showed that the non-athletes (N=106) score better than the athletes (N=60) toward the sub-domain. The athletes scored a standard deviation of 3.57 while the non-athletes scored 3.69. Response towards the vertigo sub-domain showed that the athletes had a better score than the non-athletes as indicated by their scores of 28.53 and 28.03 respectively. The standard deviation scored by the athletes toward vertigo showed 3.51 while the non-athletes showed 3.81. In the health and fitness sub-domain, the athletes (N=60) scored a mean of 36.18 with a standard deviation of 3.71 toward health and fitness while the non-athletes (N=106) scored 34.90 with a standard deviation of 4.52; which showed that the athletes had a higher score than the non-athletes. The social mean scores of the athletes of 29.90 with a standard deviation of 3.59 while the non-athletes scored 28.02 with a standard deviation of 3.87; indicated that the athletes scored higher toward the social sub-domain as compared to the non-athletes. In the ascetic sub-domain the athletes scored a mean score of 29.03 with a standard deviation of 3.95 compared to the non-athletes who had a mean score of 28.16 with a standard deviation of 4.49 toward the ascetic sub-domain. A comparison of the ascetic mean scores between the athletes and non-athletes as entire groups indicated that the athletes had a better score toward physical activity as an ascetic experience.

T-test analysis between the six overall attitudinal mean scores of the athletes and non-athletes indicated that a significant difference existed between the athletes' and non-athletes' attitudes toward physical activity as a social experience and results indicated that the athletes had a more significant score toward the social sub-domain than the non-athletes. No significant differences were found between the mean aesthetic, catharsis, vertigo, health and fitness and ascetic attitudinal scores of the athletes and non-athletes.

4.1 (f) Hypotheses Testing of Attitude Differences Between Arts and Science Students :

Attitude Differences based on the Aesthetic Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean aesthetic sub-domain scores between the Arts (mean = 30.52) and Science (mean = 31.11) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.10. The results in the table indicated that the t-value – 0.858 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Catharsis Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean catharsis sub-domain scores between the Arts (mean = 31.09) and Science (mean =

Table 4.20

Results of the T-test for Mean Difference in the Catharsis Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Catharsis	Athletes	30.95	-0.32	3.57	-0.549	Not significant
	Non-athletes	31.27		3.69		

$\alpha = 0.05$

As shown in Table 4.20, for the catharsis sub-domain, the athletes had a mean attitude score of 39.65 with a standard deviation of 3.57 while the non-athletes had a mean score of 31.27 with a standard deviation of 3.69. A t-test on the mean difference between the two groups for the catharsis sub-domain showed that the t-value of -0.549 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the catharsis sub-domain.

Table 4.21

Results of the T-test for Mean Difference in the Health and Fitness Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Health & Fitness	Athletes	36.18	1.29	3.71	1.876	Not significant
	Non-athletes	34.90		4.52		

$\alpha = 0.05$

As shown in Table 4.21, for the health and fitness sub-domain, the athletes had a mean attitude score of 36.18 with a standard deviation of 3.71 while the non-athletes had a mean score of 34.90 with a standard deviation of 4.52. A t-test on the mean difference between the two groups for the health and fitness sub-domain showed that the t-value of 1.876 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the health and fitness sub-domain.

Table 4.22

Results of the T-test for Mean Difference in the Social Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Social	Athletes	29.90	1.88	3.59	3.087	Significant
	Non-athletes	28.02		3.87		

$\alpha = 0.05$

As shown in Table 4.22, for the social sub-domain, the athletes had a mean attitude score of 29.90 with a standard deviation of 3.59 while the non-athletes had a mean score of 28.02 with a standard deviation of 3.87. A t-test on the mean difference between the two groups for the social sub-domain showed that the t-value of 3.087 was significant at 0.05 level of confidence.

Hence, the results showed that there was significant difference between the mean attitude scores of the athletes and that of the non-athletes for the social sub-domain.

Table 4.23

Results of the T-test for Mean Difference in the Vertigo Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Vertigo	Athletes	28.53	0.51	3.51	0.844	Not significant
	Non-athletes	28.03		3.81		

$\alpha = 0.05$

As shown in Table 4.23, the athletes (N=60) had a vertigo mean score of 28.53 with a standard deviation of 3.51 while the non-athletes (N=106) had a vertigo mean score of 28.03 with a standard deviation of 3.81. A t-test on the mean difference between the two groups for the vertigo sub-domain showed that the t-value of 0.844 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the vertigo sub-domain.

Table 4.24

Results of the T-test for Mean Difference in the Ascetic Sub-domain Scores Between Athletes (N=60) and Non-athletes (N=106)

Sub-domains of attitude	Group	Mean	Mean Difference	Standard deviation	t-value	Significance $\alpha = 0.05$ level of confidence
Ascetic	Athletes	29.03	0.87	3.95	1.255	Not significant
	Non-athletes	28.16		4.49		

$\alpha = 0.05$

As shown in Table 4.24, for the ascetic sub-domain, the athletes had a mean attitude score of 29.03 with a standard deviation of 3.95 while the non-athletes had a mean score of 28.16 with a standard deviation of 4.49. A t-test on the mean difference between the two groups for the ascetic sub-domain showed that the t-value of 1.255 was not significant at 0.05 level of confidence. Hence, the results showed that there was no significant difference between the mean attitude scores of the athletes and that of the non-athletes for the ascetic sub-domain.

4.1.1 (e) Summary

In this present study of 166 students, 60 were athletes and 106 were non-athletes. The aesthetic mean score obtained by the athletes was 30.65 with a standard deviation of 3.87 while the non-athletes scored 30.80 with a standard deviation of 4.56, which indicated that the non-athletes on the whole had a better score than the entire group of athletes toward the aesthetic sub-

domain. The catharsis mean scores of 30.95 by the athletes and 31.27 by the non-athletes respectively which showed that the non-athletes (N=106) score better than the athletes (N=60) toward the sub-domain. The athletes scored a standard deviation of 3.57 while the non-athletes scored 3.69. Response towards the vertigo sub-domain showed that the athletes had a better score than the non-athletes as indicated by their scores of 28.53 and 28.03 respectively. The standard deviation scored by the athletes toward vertigo showed 3.51 while the non-athletes showed 3.81. In the health and fitness sub-domain, the athletes (N=60) scored a mean of 36.18 with a standard deviation of 3.71 toward health and fitness while the non-athletes (N=106) scored 34.90 with a standard deviation of 4.52; which showed that the athletes had a higher score than the non-athletes. The social mean scores of the athletes of 29.90 with a standard deviation of 3.59 while the non-athletes scored 28.02 with a standard deviation of 3.87; indicated that the athletes scored higher toward the social sub-domain as compared to the non-athletes. In the ascetic sub-domain the athletes scored a mean score of 29.03 with a standard deviation of 3.95 compared to the non-athletes who had a mean score of 28.16 with a standard deviation of 4.49 toward the ascetic sub-domain. A comparison of the ascetic mean scores between the athletes and non-athletes as entire groups indicated that the athletes had a better score toward physical activity as an ascetic experience.

T-test analysis between the six overall attitudinal mean scores of the athletes and non-athletes indicated that a significant difference existed between the athletes' and non-athletes' attitudes toward physical activity as a social experience and results indicated that the athletes had a more significant score toward the social sub-domain than the non-athletes. No significant differences were found between the mean aesthetic, catharsis, vertigo, health and fitness and ascetic attitudinal scores of the athletes and non-athletes.

4.1 (f) **Hypotheses Testing of Attitude Differences Between Arts and Science Students :**

Attitude Differences based on the Aesthetic Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean aesthetic sub-domain scores between the Arts (mean = 30.52) and Science (mean = 31.11) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.10. The results in the table indicated that the t-value – 0.858 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Catharsis Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean catharsis sub-domain scores between the Arts (mean = 31.09) and Science (mean =

31.27) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.11. The results in the table indicated that the t-value – 0.305 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Health and Fitness Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean health and fitness sub-domain scores between the Arts (mean = 35.12) and Science (mean = 35.75) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.12. The results in the table indicated that the t-value – 0.926 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Social Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean social sub-domain scores between the Arts (mean = 28.84) and Science (mean = 28.47) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.13. The results in the table indicated that the t-value 0.606 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Vertigo Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant difference in the mean vertigo sub-domain scores between the Arts (mean = 27.62) and Science (mean = 29.16) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.14. The results in the table indicated that the t-value – 2.655 is significant at 0.05 level of confidence. Therefore, this hypothesis was rejected.

Attitude Differences based on the Ascetic Sub-domain Between the Arts and Science Students

Hypothesis states that there is no significant differences in the mean ascetic sub-domain scores between the Arts (mean =28.18) and Science (mean = 28.95) students. The t-test was applied to test this hypothesis and the results are reported in Table 4.15. The results in the table indicated that the t-value – 1.130 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

4.1.1 (f) Summary

Although no significant differences were found to exist between Arts and Science students' attitude toward physical activity: as an aesthetic

experience, as a cathartic function, for health and fitness, as a social experience, and as an ascetic experience but a significant difference was found to exist where physical activity was perceived as a pursuit of vertigo. As such, the hypothesis that states, that there is no significant difference in the mean vertigo scores between the Arts and Science students is rejected. The Science students scored a better mean score in this case than the Arts students. The probable explanation for this could be that the Science students are more active, creative and are thrill, excitement, challenge seekers by nature.

4.1 (g) Hypotheses Testing of Attitude Differences Between Athletes and Non-athletes

Attitude Differences based on the Aesthetic Sub-domain Between Athletes and Non-athletes

Hypothesis states that there is no significant difference in the mean aesthetic sub-domain scores between the athletes (mean = 30.65) and non-athletes (mean = 30.80). The t-test was applied to test this hypothesis and the results are reported in Table 4.19. The results in the table indicated that the t-value – 0.218 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Catharsis Sub-domain Between Athletes and Non-athletes

Hypothesis states that there is no significant difference in the mean catharsis sub-domain scores between the athletes (mean = 30.95) and non-athletes (mean = 31.27). The t-test was applied to test this hypothesis and the results are reported in Table 4.20. The results in the table indicated that the t-value -0.549 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Health and Fitness Sub-domain Between Athletes and Non-athletes

Hypothesis states that there is no significant difference in the mean health and fitness sub-domain scores between the athletes (mean = 36.18) and non-athletes (mean = 34.90). The t-test was applied to test this hypothesis and the results are reported in Table 4.21. The results in the table indicated that the t-value 1.876 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Social Sub-domain Between Athletes and Non-athletes

Hypothesis states that there is no significant difference in the mean social sub-domain scores between the athletes (mean = 29.90) and non-athletes (mean =

28.02). The t-test was applied to test this hypothesis and the results are reported in Table 4.22. The results in the table indicated that the t-value 3.087 is significant at 0.05 level of confidence. Therefore, this hypothesis was rejected.

Attitude Differences based on the Vertigo Sub-domain Between Athletes and Non-athletes

Hypothesis states that there is no significant difference in the mean vertigo sub-domain scores between the athletes (mean = 28.53) and non-athletes (mean = 28.03). The t-test was applied to test this hypothesis and the results are reported in Table 4.23. The major result in the table indicated that the t-value 0.844 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

Attitude Differences based on the Ascetic Sub-domain Between Athletes and Non-athletes

Hypothesis states that there is no significant difference in the mean ascetic sub-domain scores between the athletes (mean = 29.03) and non-athletes (mean = 28.16). The t-test was applied to test this hypothesis and the results are reported in Table 4.24. The results in the table indicated that the t-value 1.255 is not significant at 0.05 level of confidence. Therefore, this hypothesis was accepted.

4.1.1 (g) Summary

Hypotheses testing of attitude differences between the athletes and non-athletes based on the six mean attitudinal sub-domain scores showed that a significant difference existed between them only where physical activity was perceived as a social experience. As such, the hypothesis that states, that there is no significant difference in the mean social scores between the athletes and non-athletes is rejected. The athletes in this case scored a better mean attitudinal score than the non-athletes. The most probable reason for it might be the athletes have better opportunities to socialize, interact and to make new friends than the non-athletes do.