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THE FIRST TEST OF ATTITUDES INSTRUMENT FOR SPORTS COMPETITION IN ATHLETICS

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ABSTRACT

This descriptive study aims to test an instrument of attitudes toward sports competition of athletics competitive level, from 25 athletics athletes aged 14 to 20 years (15.60±1.41years, coefficient of variation of 9.06%) of both gender (14 male and 11 female); the instrument use was the Attitudes Instrument for Sports Competition, designed by Brito (1998) for the mathematics, adapted by Hirota, Diniz, Silva, Lima, Verardi, and DeMarco, (2014) to sport competition, and for testing the reliability the Alpha´s Cronbach Coefficient was used, follows by calculation of the average, median, score and standard deviation, by using SPSS. The result shows that the reliability of the instrument was a good performance, displaying 0.84 and 0.78 for positive and negative attitudes respect. The male average of positive and negative attitudes are higher than female significant, as the positive attitudes of both gender are also higher then negative, concluding that the instrument are able to be used in athletics and be testing in other sports.

***Keywords**: Athletics, attitudes, sport competition, validation.*

1. INTRODUCTION

The sports competition involves many emotional factors as motivation, stress and the type of attitudes. Attitude can be understood as the definition given by Brito

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(1998) as a personal, idiosyncratic, this provision in all individuals, directed to objects, events or people that assume different direction to and intensity according to the lived experiences of the individual. Moreover, it presents components of affective, cognitive and motor domain (Mohammad, Abraham, & Singh, 2011).

Rodrigues (1981) defines attitudes as a set of beliefs, feelings and behavioral tendencies of the subjects in front of a particular social object. Attitudes appear among the so-called "hypothetical constructs" used as important elements in the explanation of human behavior. Thus, are the attitudes that determine how individuals take forward positions and other events, and is due to them that assess feelings, behaviors and choices (Mohammad, Abraham, & Singh, 2011; Shaw, Wilson, & Mack, 2015). Thus, many studies have shown, thoroughly, that attitudes are powerful predictors of behavior.

Fishbein and Ajzen (1975) argue that the attitude of a person with regard to an object defined by its beliefs about the same; then the attitude mediated by the values determines the behavioral intentions with respect to the object; finally, the intentions influence the behavior to the object. That way when we visualize athletes across the sports competition, we believe whether they like it or not to compete, thus, showing a positive or negative attitude towards sports competition in the sport practicing or training, i.e., whether the athlete like or not to compete.

Negative attitudes towards curricular component lead to lack of motivation, and hinder learning and performance. It is thus for the teacher to develop a positive learning environment, conducive to controlling anxiety and increased confidence, restoring the self-esteem of students and changing their attitude. As Aparicio, Bazán, and Abdounur (2004), the relationship between attitudes and performance is bidirectional and complex. It is understandable, then, that high-achieving students in a given subject tend to have more positive attitudes towards it, as well as those with more positive attitudes tend to perform better.

The influence investigated the self-perception of performance over the attitude is evidence that attitudes and student achievement in the discipline are related, confirming the association of affection with learning (Gomes, Nogeuria & Mol, 2013).

The study conducted by Brito (1998) as opposed to what is commonly stated; mathematics is not the discipline that causes most anxiety and negative attitudes in students. That would be a belief fueled by some situations caused by the teacher or the lack of suitable material. Thus, it is likely that students who have positive attitudes towards mathematics are able to perform better than those, with a sense of aversion to math, so do this alongside the sports universe.

Against this backdrop, this study aims to test an instrument of attitudes toward sports competition of athletics competitive level.

2. METHODS AND MATERIALS

2.1 Subjects

For this descriptive study, a sample chosen for convenience, included 25 athletes, being 14 males and 11 females, age between 14 to 20 years old (n: 25, mean age 15.60 ±1.41 and coefficient of variation of 9.06%), all of them training athletics during the roll week in the City of Santana de Parnaiba, São Paulo, Brazil.

2.2 Instrument

The instrument applied was the scale of attitudes toward mathematics proposal, Attitudes Instrument For Sports Competition (AISC) adapted and validated by Brito (1998), and adapted to sport competition by Hirota, *et al*. (2014); Likert-type scale, on 4 points, that consists of 20 items (10 positive and 10 negative) whose purpose was to assess attitudes toward a joint entity, in this case, the sporting competition. Issues 01, 02, 06, 07, 08, 10, 12, 13, 16 and 17 expressed whereas negative feelings the issues 03, 04, 05, 09, 11, 14, 15, 18 and 19 is related to positive feelings.

2.3 Procedures for Data Collection

The data collection procedure followed contact with the coach of the club, and the same was authorized data collection signing the commitment of the institution; then, with the signing of the Consent Facility and Term of Consent by parents or guardians, since the participants were adolescents, thereby following all care research ethics it collecting data only meant to answer two instruments. The procedures for data collection followed the Newsletter to Research Subjects and signature of the Terms of Consent, by paying attention to research ethics set by the Declaration of Helsinki, 19649, Resolution no. 466, 2012.

2.4 Statistical Analysis

For testing of the reliability of the scale process used to calculate the Cronbach's Alpha, separately for positive and negative attitudes. The application of this testing was bound to investigate the individual items of instruments, namely, the issues were seen separately if each item was deleted and hence possible correct answers in questions were conducted to raise scores of the constructs. This is a generalized coefficient of reliability that is more versatile than other methods and this coefficient is a feature that can be used with items that have multiple measures of values, such as writing test and the attitude scales to score as strongly

agree, I agree, etc. In addition, the Alpha is probably the best coefficient to estimate the reliability in the most commonly used standardized test (Thomas, & Nelson, 2002).

Besides the reliability, researchers computing scores of attitudes (negative and positive), the mean, standard deviation, and the median of the athletes separated by gender; Aside from the scale proposed by the fruit and the study's goal, score also did, for the type of (positive and negative) attitude, researcher chose to apply for the Man Whitney ($p \leq 0.05$). Data were organized and analyzed in the light of the SPSS software, version 18.0 for Windows.

3. RESULTS

Table 1: Results of average, standard deviation, median and *alpha´*s Cronbach of each attitude of total results

Attitudes	Average (SD)	Mediam	Score	*Alpha*
Negative	1.85 (±0.88)	2	18.44	0.78
Positive	3.48 (±0.67)	4	34.88	0.84
"p"	0.000*			

Note: *Alpha´s Cronbach* Coefficient maximum value = 1,0.
*Statistically Significant Difference

Table 2: Results of *Alpha´*s Coefficient of each item of the scale related to negative attitudes

Issue	Cronbach's *Alpha* if Item Deleted
Q1	0,75
Q2	0,76
Q6	0,78
Q7	0,74
Q8	0,75
Q10	0,75
Q12	0,76
Q13	0,77
Q16	0,73
Q17	0,77
Total	**0.78**

Table 3: Results of *Alpha´*s Coefficient of each item of the scale related to positive attitudes

Issue	Cronbach's *Alpha* if Item Deleted
Q3	0,83
Q4	0,82
Q5	0,82
Q9	0,81
Q11	0,80
Q14	0,82
Q15	0,82
Q18	0,81
Q19	0,84
Q20	0,84
Total	**0.84**

Note: *Alpha´*s Cronbach Coefficient maximum value = 1,0.

Table 04: Results of average, standard deviation and median of each issue of the scale

	Issue	Ave.	±	Med.
1	I am always under a terrible tension during sports competition	2,64	0,81	3
2	I don't like to compete and scares me to have to enter the competition	1,20	0,41	1
3	I think that the competition is very interesting and I like to compete in sports.	3,80	0,41	4
4	Sport Competition is fascinating and fun.	3,60	0,58	4
5	When I compete I feel safe and while stimulated	3,32	0,63	3
6	I forget everything and I cannot think clearly at all when I'm competing	2,32	0,90	2
7	I have the insecurity feeling when I struggle in the competition	2,08	0,95	2
8	Competing made me uneasy, unhappy, angry and impatient	1,60	0,76	1
9	The feeling I have in relation to sports competition is good	3,64	0,49	4
10	The competition makes me feel as if you were lost without finding a way out	1,76	0,88	2

11	The sports competition is something I like very much and need to participate	3,48	0,65	4
12	When I hear the word competition, I have a feeling of horror	1,40	0,58	1
13	I face the competition with a sense of indecision that resulted the fear of not being able to compete	1,96	0,86	2
14	I really like to compete	3,60	0,65	4
15	The competition is an activity that I really like to participate	3,80	0,41	4
16	Think about the requirement to solve a task in the competition leaves me nervous	2,32	0,80	2
17	I never liked to compete and sports competition let me afraid	1,24	0,44	1
18	I'm happier competing than any other activity.	2,84	0,85	3
19	I feel calm competing in the sport and I love this activity.	3,16	0,90	3
20	I have a very positive reaction regarding sports competition: I like and want to compete	3,64	0,49	4

Table 05: Results of average, standard deviation and median of each attitude of each gender

	Male (n:14)			Female (n:11)			
Attitudes	Average (±)	Median	Score	Average (±)	Median	Score	*"p"*
Negative	1.72 (±0.86)	1	17.28	2.01 (±0.88)	2	20.18	0.006*
Positive	3.60 (±0.60)	4	36.00	3.34 (±0.73)	3	33.45	0.004*
"p"	0.000*			0.000*			

*Statistically Significant Difference

4. DISCUSSION

According to the results, the testing of the reliability of the instrument shows that the Alpha´s Coefficient has a good performance. In the Table 01, we can see that of the positive attitudes, the Alpha result was 0.84 and for the positive attitudes, the result was 0.78. We can conclude that the internal consistence of the instrument was good. Comparing with other studies, Hirota et al. (2014) checked in two rounds of testing the instrument Alpha´s of positive attitudes of 0.94

(round 01, n: 35) and 0.95 (round 02, n: 200); for negative attitudes the results in round 01 was 0.79 and round 02 was 0.90, emphasizing that the second round were collected with a difference of a month.

Observing the average of negative attitudes it was less than the positive, difference significant between the attitudes (p=0.000), proving that this total group has tendency for positive attitudes, so the like to compete in sport, and enjoy the context of the competitive environment. Comparing with the study accomplished by Hirota, *et al*. (2014) we got similar results for negative attitudes (1.96, & 2.12) and for positive attitudes (2.81, & 2.80).

Perceiving the results of the internal consistence of the negative attitudes of each item (Table 02), we can see that the results are a matching, so there is no item to delete, otherwise the Alpha´s Coefficient will get down.

For the positive attitudes (Table 03)we can see that all results of Alpha´s Coefficient was equivalent, so none of the issues of the instrument was able to be deleted; they are all necessary to compose the total Alpha´s of each kind of attitude.

Following the steps of the results, on Table 04 we can see all the issues of the instrument, and the results of the average, standard deviation and median. As the condition of the Table 01, the results of positive attitudes comes at a high median and average, showing this way that the athletes enjoy participating the challenge. There are some issues with the high level of score (3, 4, 9, 11, 14, 15 and 20). Some of the issues also has the low type of answer (2, 8, 12 & 17).

As the hypothesis of this study, we would like to compare the results between male and female, and in the Table 05 we can check that male athletes enjoy more than female to compete, significantly (p=0.004), because the average of positive attitudes is high; in the same way male athletes has high average of negative attitude then female (p=0.006). In both gender there is a significant difference between negative and positive, so we can observe that both gender enjoy competitions. According to Tiwari, Kumar, and Tiwari (2014) attitude is formed by people because of some kinds of learning experience if the experience is favorable a positive attitude is found and vice versa.

In this way, we can consider that the positive attitudes for sport competition could be related to like to practice athletics', and the desire to improve the sport performance.

However, we suppose that men like more the challenge than women, but some studies must be done to conclude that, as well, some points that we didn´t see in this study is the time of practice each athlete has been training. As the first testing of the instrument for athletics, we can consider that it was a good performance in the reliability (internal consistence), and it can be reproduced in other public athletes, in order to verify its applicability.

5. CONCLUSIONS

It can concluded that the instrument has a good performance in reliability, showing that the instrument has a good performance for its application in athletes, since the origin of this instrument is of math and was previously adapted; male athletes are very fond for competition, and that these bring from benefits, and the whole group demonstrated positive attitudes, significant, towards the practice of athletics.

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