

Adaptation to Portuguese of an attitude's instrument to sports competitions: A pilot study

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Abstract

The purpose of this research, is to offer the adaptation of an instrument that assesses attitudes towards mathematics ^[1] for the context of sports competitions. In two rounds (R1 and R2) with a total of 60 participants of both sexes we perform a adaptation for the instrument used is a scale that seeks to ascertain both positive and negative attitudes towards mathematics, that is, whether the participant likes mathematics or not, so we adapt it to sports competitions, trying to find if the youth sports participants have positive or negative attitudes to sport competition, and in this way testing the internal consistence for the instrument. The results show an excellent performance of the internal consistence (Cronbach's Alpha Coefficient) of the instrument, both to positive by the negative issues, and a tendency to positive attitudes in sport competition.

Keywords: sports competition; positive attitudes; negative attitudes; evaluation

Introduction

Sport is a socio-cultural phenomenon that involves practitioners in different spheres when related to the emotional aspect. The feelings of success or frustration, motivation and even enjoying or not training or competing can demonstrate differences between athletes.

In this sense, observing whether young sports players like to compete or not becomes an important challenge, as these challenges related to sports training are linked to putting the performance obtained in the teaching-learning process as well as in sports training to the test in competitions.

The purpose of this research, is to offer the adaptation of an instrument that assesses attitudes towards mathematics ^[1] for the context of sports competitions. In order to offer useful results, the initial concern of this study was to find an instrument compatible with the following demands and characteristics: ease of application, clarity in its completion, reliability and validity for Portuguese; in addition to these interests, other studies have been shown that have proven the stability of the instrument taking into account its internal consistency ^[2, 3, 4, 5, 6, 7].

Materials and Methods

The method employed was a pilot study in which the following steps were established: 1. Choice of the appropriate, validated and reliable instrument to assess attitudes; 2. Contact between the researchers and the author of the instrument, and she presented herself in agreement with the process of adapting the instrument from the context of mathematics to sports competition; 3. Adapt the instrument to the sports context carried out by the researchers; 4. Review of five

doctoral professors with training in the area of Physical Education and Sport and knowledge in the process of validation and emotions in sport; 5. Conducting the first test called Round 1 (R1); 6. Apply the specific statistical treatment (calculation of the instrument's internal consistency - Cronbach's alpha, mean, median, standard deviation and score) and analyze the validity of the instrument's constructs; 7. Perform the second test called Round 2 (R2); 8. Apply the statistical treatment again (calculation of the instrument's internal consistency - Cronbach's alpha, mean, median, standard deviation and score - sums of responses). In relation to the treatment of the data, a database was elaborated, and the techniques applied were intended to test the reliability of the instrument, thus verifying the behavior of the questions in relation to obtaining answers. Mann Whitney's non-parametric test, used to compare the average results of each attitude in R1 and R2. All results were calculated using SPSS Software version 20.0.

The instrument used is a scale that seeks to ascertain both positive and negative attitudes towards mathematics ^[1], that is, whether the participant likes mathematics or not, so we adapt it to sports competitions, making it possible to verify whether the sport practitioner or not to compete, making it possible to highlight positive and negative attitudes. This scale has a total of 20 questions (see annex), of the Likert type, with four points distributed as follows: 1 - I totally disagree; 2 - Disagree; 3 - Agree and 4 - Strongly Agree; the statements regarding positive attitudes of the instrument are those of number: 03, 04, 05, 09, 11, 14, 15, 18, 19 and 20. The statements regarding positive attitudes are those of number: 01, 02, 06, 07, 08, 10, 12, 13, 16 and 17, thus totaling ten

questions for each type of attitude (negative and positive). Among the procedures for data collection, contact was made with the director of the Teaching Institution of the sedentary establishment, where she requested to receive detailed information about the project; this institution is located in the city of Carapicuíba, São Paulo / SP and serves children and adolescents. The students' parents agreed to let their respective children participate in the research, previously signing a Free and Informed Consent Form. For the judges' judging stage, the doctoral professors received the scale of attitudes towards mathematics and also the scale adapted to attitudes towards sports competitions, thus being able to make their notes. The choice of the sample was constituted by convenience, since the researchers had access to the Educational Institution, the inclusion criterion of the subjects was the fact that the students practice a sports modality and participate in sports competitions.

35 students of both sexes participated in the R1 (average age of 15.91 ± 0.76 and variation coefficient of 4.84%), comprising step 5 of the method. In R2, the question of number 08 was

readapted, and applied to 25 other participants of both sexes (average age of 15.81 ± 0.58 and variation coefficient of 3.71%). Therefore, for these steps we consider the homogeneous concentration of the respondents' ages in both R1 and R2

Results and Discussion

Regarding the results, in Table 01 it can be seen that the instrument performed well in relation to the internal stability of the scale items, values expressed by the Alpha's coefficient. In the first R1 test for R2, adaptations were made to questions 8 and 17 (question 08 - R1: Competing makes me uneasy, unhappy, irritable and impatient; R2: Competing makes me nervous and stressed (a); in question 17 - R1: I never liked to compete and it is the sports competition that gives me the most fear; adapted in R2 for: I never liked to compete and the sports competition gives me the most fear), both referring to the attitude negative, and in this way the results of Alpha were elevated mainly in the questions concerning the negative attitude, when increasing from 0.79 to 0.90.

Table 1: Results of Alpha, mean, standard deviation and median of R1 and R2:

Attitudes	Round 01 (n: 35)				Round 02 (n: 25)			
	Mean (\pm)	Med.	Score	α	Mean (\pm)	Med.	Score	α
Negatives	1.96 (± 0.75)	2	19.91	0.79	2.12 (± 0.86)	2	21.24	0.90
Positives	2.81 (± 0.91)	3	28.17	0.94	2.80 (± 0.87)	3	28.04	0.95

Note: α = Cronbach's Alpha Coefficient (maximum value 1.0)

Regarding the questions of positive attitudes, they showed Alpha results of 0.94 and 0.95 respectively in R1 and R2, therefore stable. The average results of negative attitudes presented in Round 1 (1.96) and Round 2 (2.12) indicated a significant difference ($p=0.01$), that is, the average of R2's negative attitudes is higher. This result suggests that this difference between the means of negative attitudes may be related to the adjustment of the questions, it is necessary to increase the number of participants in future studies. In the test regarding positive attitudes between R1 and R2 the result was not observed significant difference ($p=0.859$), the averages of the positive attitudes tested in the two phases are similar, as was demonstrated with the application in R2, in which, the questions related to that attitude are congruent. The values expressed by the scores, counting the points related to each attitude, also show similarities. When evaluating positive attitudes in R1, the total score was 28.17 points and in R2, 28.04 ($p=0.946$), when comparing the two scores, no significant difference was observed. The data provided on negative attitudes in R1 (score of 19.91 points) and in R2 (score of 21.24 points) also did not indicate a significant difference ($p=0.282$). In a research with amateur swimmers the results of positive attitudes were higher than negative attitudes^[8]. In a research with 260 Brazilians youth athletes, values of positive attitudes give the basis for asserting that as positive attitudes toward sports competition rise^[5]. Referent the attitudes, in a study with youngsters Kung Fu fighters there is a significant difference between positive and negative attitudes, so the total group have a positive way to leading with the sports competition^[6]. In a study with 25 athletics athletes aged 14 to 20 years the male average of positive and

negative attitudes is higher than female significant, as the positive attitudes of both gender is also higher then negative^[9].

In this way, Attitude can be understood 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^[1]. Therefore, the profile of subjects with positive attitudes are Have good feeling to an object or goal, search good results, have Confidence in a good performance in exercise and sports training and Belief in the importance of the knowledge acquired in training^[7]. On the other hand, the outline of a participant with negative attitudes contains the following features have frustration and bad feelings about the sports competition, have disappointment about the outcome of sports competitions and desire to give up sports competitions^[7].

Conclusions

Based on the preliminary results, there is a tendency to positive attitudes in sport competition and it is concluded that the instrument is stable and effective in relation to its adaptation, taking into account the adaptation of questions 09 and 17. Future researches need to carry out the testing with a larger number of participants, both in sports individual as team sports as well as in different genres, to evidence if the validity of the instrument, in different sports and genres are stabilized. There remains the suggestion to carry out both exploratory and confirmatory factor analysis of the instrument

for its validation.

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