



## Pro-social and antisocial values in physical education. The validity and reliability of fair play questionnaire in physical education (FPQ-PE) into Albanian language

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### Abstract

**Introduction:** Fair Play behaviours are moral and social behaviours that can be acquired from students throughout PE class. The main aim of this study was to translate and validate into Albanian language the questionnaire that measures and evaluates pro-social and antisocial behaviours in PE class. **Material and methods:** The process of validity was based in three steps: 1) Translation and Back Translation - the questionnaire was translated from experts of the field who were proficient in English language, and the process of back translation was done from experts of Albanian and English language. 2) Factor Analysis - 597 middle school students from Tirana, Albania, were involved, from which a simple size of 280 students (mean age=13.22±1.22 yr) was used to perform the EFA, and reliability, reporting the CA coefficient. For the CFA a sample size of 317 students (mean age=14.32±7.3 yr) was used. 3) Test-Retest Validity- the questionnaire was submitted to the same students as EFA in two times with an interval of 3 weeks between them. **Results:** Regarding Factor Analysis the KMO > than 0.5 and Bartlett's Test < 0.01 (KMO=0.820,  $\chi^2=1153.330$ ;  $p=0.000$ ), have indicated that the EFA could be performed. EFA has revealed that there were four factors, two for pro-social and two for antisocial. The CA coefficient for the four factors was: respect conventions ( $\alpha=0.683$ ), respect towards teammates ( $\alpha=0.616$ ), cheating ( $\alpha=0.765$ ) and gamesmanship ( $\alpha=0.742$ ). The CFA has indicated a good model fit ( $\chi^2=196.68$ ,  $df=84$ ,  $p=0.000$ , RMSEA = 0.065, SRMR = 0.056 and CFI=0.92). Regarding test-retest validity there were no significant differences between test and retest measures, when test ( $M=44.26\pm 5.13$ ) and retest ( $M=44.09\pm 5.76$ ) conditions;  $t(279)=0.52$  ( $p=0.600$ ). **Conclusions:** According to the results of our study, the questionnaire has shown reliability on measuring pro-social and anti-social behaviours in PE class. Therefore, the questionnaire can be used as an effective tool to help Albanian PE teachers and sports educators to understand the social and educational values dealing with sport in Albanian schools.

**Keywords:** pro-social, antisocial, values, questionnaire, physical education

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## INTRODUCTION

In recent years, sport and Physical Education (PE) are getting special attention because of the benefits that they give to a person. Ghildiyal [1] states that "Sport and PE helps an individual much more than in physical aspects alone. It builds character, teaches and develops strategic thinking, analytical thinking, leadership skills, goal setting and risk taking". Bailey [2] reported that PE helps children develop respect for their own body, themselves and others, and it makes them understand the benefits of physical activity (PA) on their health, and in the same time makes them more confident and increases their self-esteem. According to his findings, PE and sport can bring a variety of outcomes which can be understood in terms of children's development, which are concentrated in 5 important areas: physical, lifestyle, affectiveness, social, and cognitive.

Concentrating on values related to sport and PE, our first research focus has been "fair play", starting with the study of "Fair Play for Kids [3]: effects on the moral development of children in physical education". The study suggested that values of sportsmanship are most effectively supported when students are given the theory and in the same time the opportunities to practice and implement these theories through playing and games. Hassandra, et al., [4] reported that Fair Play is the sum of social and moral values divided to individuals through sport.

Fair Play has been defined by some authors as follows: "Fair play means not just playing by rules, but also respecting others, participating always with the right spirit and attitude, valuing equal opportunity and behaving with responsibility towards a teammate or a player" [5]. "Demonstrating respect for the roles of opponents and referees" [6]. "Respecting other students rights to learn and to participate [7]. In the *Code of Conduct*, the IOC defines Fair Play as a set of actions dealing with [8]: Be True - Always do your best, do not try to fix an event, Be Safe- Never beg for your sport or your competition, Be Careful- Do not share information that could be used for betting purposes, Be Open- If you are approached to cheat, do not keep silent, speak out! "Fair Play is a complex concept that comprises and embodies a number of fundamental values that are not only integrated to sport but relevant in everyday life"[9].

Also, a very important question to answer is why and who promotes fair play [10,11]. Pinheiro, et al., [12] underwrite that Fair Play is something related mostly to sport, and it can be learned between mates of a team or class, and it is something transmitted from PE teachers, coaches, and parents, figure 1. Reviewing all the definitions of fair play we can highlight the importance that it plays in sport and PE, especially seen as an applied concept which can teach sets of general, moral or social values. Even that is generally agreed that sport teaches values, this depends upon the way sport is played, taught and practiced, because this values can be transformed from positive to negative [13]. Evaluating it from this point of view, we encountered many studies with intervention programs to change student's behaviour, where PE teachers play a very important role.

Hassandra, et al., [4] worked in a fair play intervention program on Olympic Education; the study took place in 4 elementary schools in Greece. One hundred and twenty-six 5<sup>th</sup> grade students participated in the study, from which 66 were in the experimental group and 60 in the control one. To measure the level of fair play, "Fair Play Questionnaire in Physical Education" (FPQ-PE) [14]. The intervention had an immediate effect on the control group, so the program based on theoretical principles can be effective in promoting socio-moral development on students. The same questionnaire was validated and applied also in Turkey, the study showed effects on all subscales in favour of girls [15].

On the same line goes the research on moral growth and Fair Play [16]. An intervention program was implemented on 7<sup>th</sup> to 9<sup>th</sup> grade students, in a mountain village in the province of Parma. Students modified their behaviour, increased their self-esteem and self-efficacy, they acquired positive emotions and experiences during physical education classes.

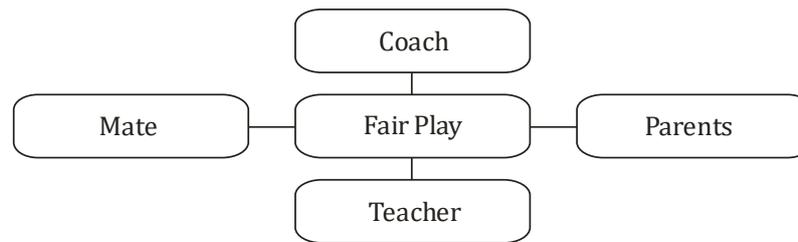


Figure 1. Fair play and components that interact together to implement values.

Another intervention is the research with the investigation on the effects of a dependent group-oriented contingency on supportive and non-supportive fair play behaviours [6]. The study involves 6<sup>th</sup> grade students in a volleyball game and it was effective on the dependent group-oriented contingency, students showed good improvement on supportive behaviour during volleyball game in PE. Vidoni and Ward [17] implemented an intervention program on seven students for 18 lessons with duration of 40 minutes per lesson. The instructions consisted in: (a) students developing a chart with fair play cues to be accomplished during the lesson; (b) the teacher's approval of the concepts of Fair Play expressed through students' behaviours during PE class; (c) pinpointing positive fair play behaviour at the end of the lesson. The intervention and data collection were concentrated on students' active participation in helpful and harmful behaviour. As results, the instructions students were provided with to promote their perception of Fair Play increased their level of participation. Moreover, from the intervention a positive change about helpful behaviour was detected along with a decrease in the amount of harmful behaviour.

As highlighted above the values learn through sport and especially through PE class can be a very effective tool through which PE teachers can work and improve their students' attitudes and behaviours. The perception of values in education systems can somehow be different in different countries and cultures. Therefore, regarding Albanian education system we faced the need of evaluating these values, and to carry out this evaluation we are convinced that is important to evaluate practical instruments which may be applied.

For this reason, the main aim of this study was to translate and validate into Albanian language the questionnaire that measures/evaluates pro-social and antisocial behaviours in PE class [14]. In so doing, we are convinced that we will collect data to build and put into practice a tool capable of detecting students behaviours about values dealing with Fair Play and plan an effective intervention to cover their needs.

## MATERIAL AND METHODS

To conduct this study the *Fair Play Questionnaire in Physical Education (FPQ-PE)* by Hassandra, et al. [14] was used. The questionnaire was translated and validated into Albanian language from the English 15-items-version used in the study of Mirzeoğlu [15]. The questionnaire consisted in two pro-social sub-scales ("respect towards teammates", "respect for conventions") and two antisocial ("gamesmanship", "cheating") and it was based on a 1 to 5 Likert scale detecting the level of frequency (1=Never, 5= Always).

The methods that were used to validate the questionnaire were based in three steps; 1) Translation and Back Translation, 2) Factor Analysis, and 3) Test-Retest Validity. 1) Translation and Back Translation- The questionnaire was translated from three experts of the field (PE teachers and sport experts) who were proficient in English language and the process of back translation was done from experts of Albanian and English language. 2) Factor Analysis- We used the Exploratory Factor Analysis (EFA), Reliability reporting Cronbach Alpha (CA) coefficient, and Confirmatory Factor Analysis (CFA). A total of 597 middle school students from Tirana, Albania, were involved. For the EFA, Reliability (CA) and test-rates validity, a sample of 280 middle school students was taken (age=13.22±1.22 years) and for the CFA another sample size of 317 students was used (age=14.32±7.3 years). 3) Test-Retest validity- The questionnaire was submitted to the same students two times with an interval of 3 weeks between them. Additionally, the questionnaires were submitted to the students

in the same conditions. In both times, students completed the questionnaire before starting their lessons and it took them between 5-7 minutes.

## RESULTS

### *Translation and Back Translation*

The process of translation was made adapting all of the items into Albanian language, being that some words were considered “strong” on their first meaning for Albanian language. The group of experts decide to use “break the rules” instead of “cheating” and the “teammates” was translated as teammates/classmates. Regarding the back translation there were not changes from the original version, except the words “cheating” with “break the rules” and for the word “teammates” where used two words “teammates” and “classmates”. This is because in Albanian language the word “teammates” is used especially on the context of competitive sport, and in PE classes both words are used “teammates” and “classmates”(full version at the appendix).

### *Exploratory Factor Analysis- (EFA)*

For the EFA, Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett’s Test of Sphericity values were calculated: KMO is > than 0.5 and Bartlett’s Test is significant < 0.01 (KMO-0.820,  $\chi^2=1153.330$ ;  $p=0.000$ ). The numbers of factors were four (without fixing the number of factors), that is to say, two factors in antisocial values (cheating and gamesmanship) and two factors in pro-social values (respect conventions and respect towards teammates). All items load with their correspondent factor, as shown in Table 1.

### *Reliability*

The CA coefficient was used to evaluate the reliability of the questionnaire. The CA coefficients for questions representing the antisocial sub-scale were: cheating 0.765, and gamesmanship 0.742. On the other hand, for the questions representing pro-social sub-scale the results were: respect convention 0.683 and respect towards teammates 0.616. Evaluating the CA for two sub-scales (pro-social and antisocial) the coefficient was 0.803 for antisocial, and 0.717 for pro-social.

Table 1. Factor Analysis of FPQ-PE

Items / Factors	F1	F2	F3	F4
<b>Cheating</b>				
I cheat	0.759			
I cheat if it helps me win	0.770			
I cheat if I am sure that I am not caught	0.756			
<b>Gamesmanship</b>				
I swear to my opponents		0.365		
I try to disturb my opponents		0.775		
I try to get my opponents angry		0.758		
I try to demoralize my opponents		0.671		
<b>Respect Conventions</b>				
I shake my opponents’ hands no matter I win or lose			0.824	
I shake my opponents’ hands when the game finishes			0.857	
I congratulate my opponents when I lose the game			0.583	
I congratulate my teammates on their good performance			0.333	
<b>Respect towards Teammates</b>				
I reward my teammates’ good efforts				0.623
I support my teammates				0.618
I stand by my teammates				0.705
I help my teammates				0.653

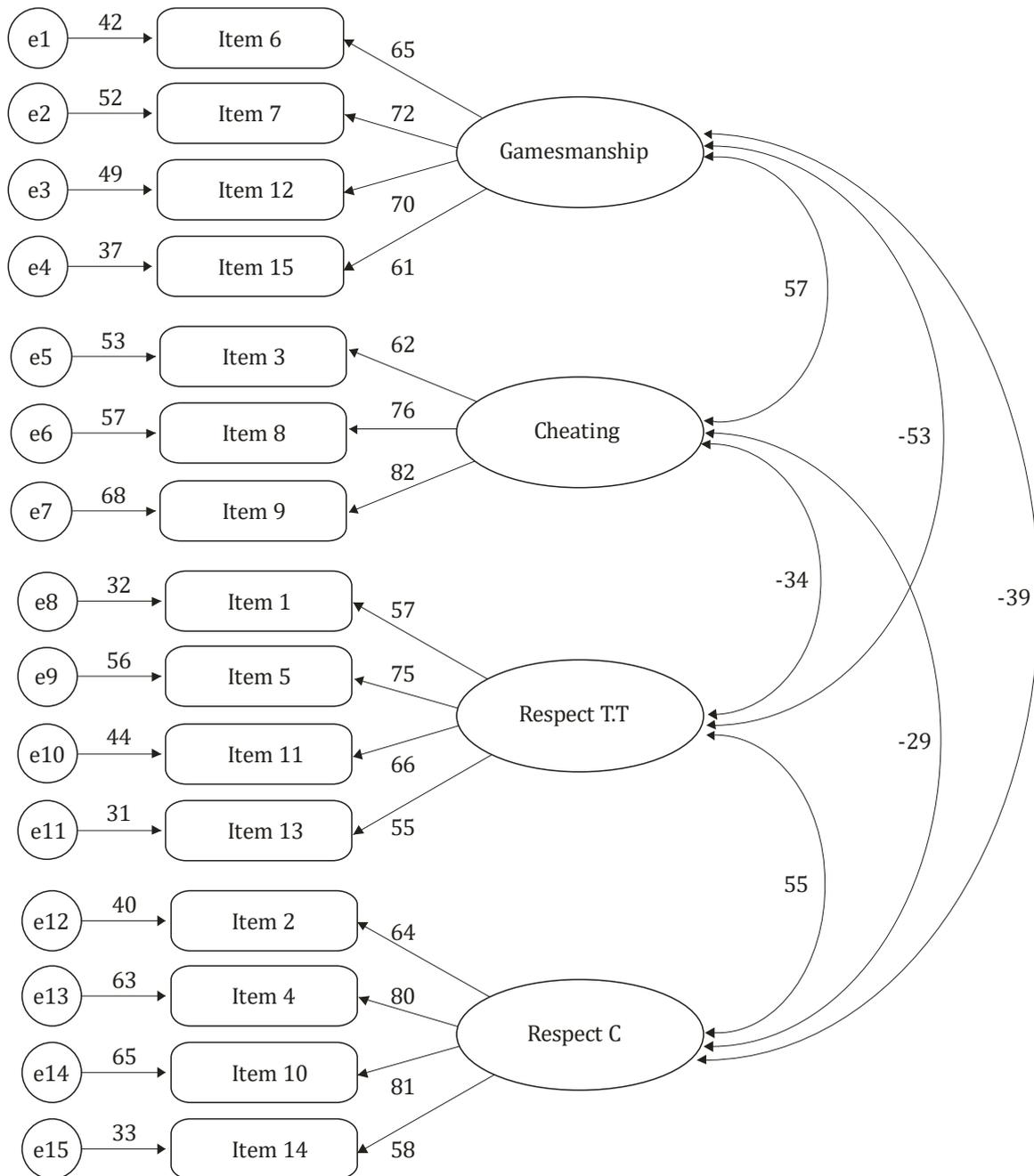


Figure 2. CFA and error of variance for FPQ-PE.

Table 2. Fit index of FPQ-PE

Fit indexes	Values
$\chi^2$ - Chi-square	196.68 (p=0.000)
Df - Degrees of freedom	84
$\chi^2/df$	2.34
RMSEA- root mean square error of approximation	0.065
SRMR- Standardized root mean square residual	0.056
CFI- Comparative fit index,	0.92
NFI- normed fit index,	0.88
IFI- Incremental fit index	0.92
TLI- Tucker-Lewis index	0.90

### Confirmatory Factor Analysis- (CFA)

Reporting CFA Model Fit, researchers use numerous goodness-of-fit indicators to assess a model. The most important to report are: Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Incremental Fit Index (IFI) [16]. On the table 2 is reported Fit index, and in the figure 2 the CFA and error of variance for the FPQ-PE.

### Test-Retest Validity

As mentioned above on the process of validity we used even the test-retest validity. There were no significant differences between test-retest measures, when test ( $M=44.26\pm 5.13$ ) and retest ( $M=44.09\pm 5.76$ ) when conditions;  $t(279) = 0.52$  ( $p=0.600$ ).

## DISCUSSION

The main purpose of the study was the validity and reliability of *FPQ-PE* into the Albanian language. To do so the process of validity as mentioned above was based in three steps. First, the translation and back translation of the questionnaire from experts of the field and the language was made. On the process of translation, the adaptation into Albanian language was done. For the back translation there were only small changes from the original version, just using different synonyms.

Secondly, the factor analysis was completed, in which we evaluated the response of 597 students from Tirana, Albania. EFA was accomplish with a sample size of 280 students, from the analysis KMO > than 0.5 and Bartlett's Test < 0.01 (KMO=0.820,  $\chi^2=1153.330$ ;  $p=0.000$ ), have indicated that EFA can be performed. Without fixing the number of components all items were loaded in four factors and the smallest value was 0.30.

Comparing the EFA loading with the study of the 0.30 value is lower [15]; being that in their study the smallest value was 0.40, but regarding the values between 0.30 and 0.40 can be considered acceptable on EFA [19]. Once performed the EFA, we evaluated the CA coefficient, when pro-social and antisocial sub-scales were: 0.765 for cheating; 0.742 for gamesmanship; 0.683 for respect conventions and 0.616 for respect towards teammates. Separately, the reliability for two sub-scales was antisocial 0.803 and pro-social 0.717. Comparing the result of then CA coefficient with the original questionnaire [14], and the questionnaire translated and validated into Turkish language we can say that the questionnaire in Albanian language can be considered reliable [15]. All in all, the values in the original study were between 0.66 and 0.89, in the study of were between 0.37 and 0.86 and in our study that we have conducted the results were between 0.62 and 0.80 [15].

Moreover, regarding the factor analysis, the CFA was carried out with a sample size of 317 students. The analysis showed a good model fit (Chi-Square=196.68,  $df = 84$ ,  $p=0.000$ , RMSEA=0.065, SRMR=0.056 and CFI=0.92). According to Hu and Bentler [18] the cut-off criteria for several fit indexes should be RMSEA < 0.060, CFI > 0.95, TLI > 0.95 which are even the fit index that authors prefer more for one-time analysis [19,18]. Schreiber et al. [19] are at the opinion that the cut off for the RMSEA need to be < 0.06 to 0.08 with confidence interval, SRMR  $\leq$  0.08, and the CFI needs to be > 0.95. But other authors are on the opinion that the cut-off criteria for the CFI, NFI and TLI can be acceptable on 0.90 [22-25]. For the values less than 0.90 for the TLI and NFI the model usually can be improved substantially [26,27].

The third step of validity was the test - retest validity, when the instrument was distributed to 280 students (mean age=13.22 $\pm$ 1.22 yr) in two different times, with an interval of 3 weeks between them. There were no significant differences between test and retest measures, when the results for the test were ( $M=44.26\pm 5.13$ ) while the results of the retest were ( $M=44.09\pm 5.76$ ) conditions;  $t(279)=0.52$ ,  $p=0.600$ .

Based on the general results, it can be said that the results of this study have supported our purpose. All items on the EFA were loading on the correspondent factors and the CF coefficients for the four sub-scales were between 0.60 and 0.80. Additionally, the CFA showed a good fit index and the test-retest measure had no significant differences between the first and the second measure. Therefore, the questionnaire into Albanian language can be potentially valuable on measuring and

evaluating pro-social and antisocial behaviours in PE class. A future needed step will be a pilot study to test the instrument in Albania.

This questionnaire can be a useful instrument to measure and evaluate the response of Albanian children towards Fair Play behaviours during PE class, and in the same time it could give us the opportunity to evaluate the PE curriculum. Also the questionnaire can be used to compare and assess the responses of children from public and private schools. Furthermore, the instrument can also provide some valuable information of the students' behaviours depending on their gender.

## CONCLUSIONS

Fair Play behaviours are essential social behaviours for students to acquire throughout a PE class. These Fair play behaviours in PE class have been measured and evaluated in previous studies using FPQ-PE in Greek and Turkish language [14,15]. The main purpose of this work was to translate and validate these same questionnaires into Albanian language, producing by doing so a reliable questionnaire that could be used also in the Albanian education system.

Additionally, from the results obtained in this study, it can be asseverated that the questionnaire in the Albanian language can be considered reliable on measuring and evaluating pro-social and antisocial behaviours in PE class. All in all, the implementation of the questionnaire can be a useful addition to help Albanian PE teachers to improve their work and to assess the reality of students' behaviour pattern in middle school, providing them with accurate information about the needs of possible intervention programs in PE class. The Albanian education system could use this instrument to evaluate and enhance the PE curriculum in its schools, and it could also be a useful tool for researchers in the field of PE.

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### Appendix

#### Albanian version of the FPQ-PE

##### **Mashtrim**

Shkel rregullat.

Shkel rregullat nëse më ndihmon të fitoj lojën.

Shkel rregullat në lojë kur jam i/e sigurt që nuk do më zbulojnë.

##### **Jo korrektësi**

I ofendoj kundërshtarët e mi.

Përpiqem ti shqetësoj kundërshtarët e mi.

Përpiqem ti nevríkos kundërshtarët e mi.

Përpiqem ti demoralizoj/shkurajoj kundërshtarët e mi.

##### **Respekt ndaj normave**

I jap/shtrëngoj dorën kundërshtarëve, pavarësisht nëse fitoj apo humbas.

I jap/shtrëngoj dorën kundërshtarëve të mi në fund të lojës.

I përgëzoj kundërshtarët e mi kur humbas lojën

I përgëzoj shokët e mi të klasës për lojën e tyre të mire.

#### Back Translation

##### **Cheating**

I break the rules.

I break the rules if that helps me win.

I break the rules if I am sure that I am not going to get caught.

##### **Gamesmanship**

I swear to my opponents.

I try to disturb my opponents.

I try to make my opponents angry.

I try to demoralize my opponents.

##### **Respect Conventions**

I shake my opponents' hands no matter if I win or lose.

I shake my opponents' hands when the game finishes.

I congratulate my opponents when I lose the game.

I congratulate my casemates on their good performance.

**Respekt kundrejt lojtarëve të klasës/skuadrës.**

I jap kurajo shokëve/shoqeve të mi/ja të klasës/skuadrës.  
 I mbështes shokët/qet e mi/ja të klasës.  
 Qëndroj pranë shokëve/shoqeve të mi/ja të klasës/skuadrës.  
 I ndihmoj shokët/shoqet e mi/ja të klasës.

**Respect towards Teammates**

I reward my teammates'/casemates good efforts.  
 I support my casemates.  
 I stand by my teammates'/casemates.  
 I help my casemates.

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