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# Students' opinion on Physical Education and School: An association with academic performance

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## ABSTRACT

The aims of this study were: (i) to characterize students' opinion on Physical Education (PE) and on the School and (ii) to analyze the associations between opinion about PE, gender, age, and academic performance. The sample was composed by 599 students (264 boys and 335 girls), aged 10 to 22 years ( $14.76 \pm 2.42$ ). A subsample of 154 students (76 boys and 78 girls,  $14.33 \pm 2.14$ ) were evaluated in academic performance. The students' opinion about PE and the School was evaluated through a questionnaire with a Likert scale response. The academic performance assessment was based on the curricular evaluation at the end of the 3rd period. The Kolmogorov-Smirnov test was used to test the normality of the distributions of the variables. Student's t-test was used to determine the differences between groups in variables with normal distribution and Pearson correlations to study the associations. The students' opinion regarding PE was mostly positive (70%). Lower values were found in relation to the opinion on School (40.8%). The opinion about PE was influenced by the grade achieved in the subject, but was not influenced by the overall academic performance. With increasing age, boys like PE and School less and less. Further research on the reasons underlying the results obtained can contribute to the acknowledgment of PE as a powerful instrument to dynamize changes in the pedagogical process in Schools. **Keywords:** School; Physical education; Academic performance; Change.

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## INTRODUCTION

The education system is still rooted in the factory paradigm and faces some difficulty meeting the challenges posed by a constantly changing society (Cândido, 2012; Lopes et al. 2014). A coherent change strategy requires that students' perceptions are taken into account (Lopes et al. 2018). Considering that Physical Education (PE) can be a pole that attracts change, the present study aims to: (i) characterize the students' opinions on the PE and the School and (ii) analyze the associations between the opinion on PE and gender, age, review of the school and school performance.

## MATERIAL AND METHODS

### **Participants**

The sample consisted of 599 children and adolescents (264 girls and 335 boys), aged 10 to 22 years ( $14.76 \pm 2.42$ ).

The students belonged to a public education network in the municipality of Funchal. A subsample of 154 subjects (76 boys and 78 girls), with a mean age  $14.33 \pm 2.14$  years, were evaluated in regard to academic performance.

### **Measures**

The students' opinion about PE and the School was evaluated through a questionnaire, with a Likert scale of 1 (I do not like anything at all) to 5 (I really like it). The academic performance was determined based on the curricular notes at the end of the 3rd period, the average of the disciplines and PE, Mathematics and Portuguese courses were analysed separately.

### **Procedures**

The present study is part of a larger project called "Physical Education in Schools of the Autonomous Region of Madeira" (EFERAM-CIT). Participants were informed about the aims of the study and written informed consent was obtained from their legal guardians. The study received Ethical approval from the Scientific Committee of the Faculty of Physical Education and Sports at the University of Madeira (Reference: ACTA N.77 - 12.04.2016).

### **Analysis**

Initially, descriptive statistics were used to characterize the sample. Normality of the distribution for all variables was tested using the Kolmogorov-Smirnov test. The academic performance was standardized considering the different classification scales used in the 3rd cycle (from 1 to 5 values) and in the secondary (from 1 to 20 values). An independent-samples t-test was used to determine the differences between groups and Pearson correlations were calculated to study the associations. Statistical procedures were performed in SPSS software version 25.0 and the significance level adopted was 5%.

## RESULTS

Most participants "like a lot" (43.6%) or "really like" (33.4%) the PE course, although 8.5% dislike or consider that this discipline is indifferent (15.5%). On average, boys reported that they liked PE more than girls ( $4.23 \pm 0.924$  vs  $3.78 \pm 1.00$ ) ( $t(597) = 5.598$ ,  $p < 0.001$ ). A more negative perception of the PE was associated with increasing age ( $r = -0.138$ ;  $p = 0.028$ ) only in boys.

Regarding the students' opinions about the school, it was found that 37.5% consider that the school is to them indifferent, and roughly 1 in 5 said that did not like the school (21.6%). The remaining 40.8% said they liked the School. No gender differences were found in relation to opinion about school. A more negative perception about the School was associated with increasing age ( $r = -0.151$ ;  $p = 0.045$ ), in boys only.

This study identified an association between PE opinion and: (i) school opinion ( $r = 0.151$ ,  $p = 0.001$ ), and (ii) the PE subject score ( $r = 0.263$ ,  $p = 0.022$  for girls  $r = 0.381$ ,  $p = 0.001$  in boys). No significant associations were identified between the students' opinion about PE and the curricular average or the assessments in Mathematics and Portuguese courses ( $p > 0.05$ ).

## DISCUSSION

The fact that the students' opinion about PE are mostly positive (70%) and the opinion about school is less favourable (only 40.8%) is in line with previous evidence in similar populations and contexts (Lopes et al., 2018).

Liking or disliking PE is not significantly influenced by the fact that students have a higher or lower overall academic performance. The same happens with the two nuclear disciplines in scientific-humanistic curricula (Portuguese and Mathematics). These results trigger the discussion about whether or not PE evaluation should count to the average for access to higher education, while helping to demystify the idea that good students do not like PE. The fact that older boys enjoy PE and School less and less corroborates previous results obtained by Lopes et al. (2018). This may be an indicator that PE can be underachieving its goal in regard to promoting a lifelong taste for physical activity and sports.

## CONCLUSIONS

We conclude that the students' opinion about PE is more favourable, when compared to the opinion about the School. Older boys tend to have a less positive opinion about PE and School. A positive opinion on PE is associated with a better view of school, among both boys and girls. The opinion about PE is positively associated with the PE grade, but not with overall academic performance (in Portuguese and Mathematics). In this context, PE can be a powerful tool in transforming the pedagogical process in a School that must adapt to the challenges of a rapidly changing society.

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