

SATISFACTION AND IMPORTANCE OF PHYSICAL EDUCATION IN SCHOOLS

SATISFACCIÓN E IMPORTANCIA DE LA EDUCACIÓN FÍSICA EN CENTROS EDUCATIVOS DE SECUNDARIA

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ABSTRACT

Objective: To analyse the satisfaction, boredom and importance attributed to Physical Education by adolescent students. **Method:** Cross-sectional design with the participation of 925 secondary and high school students aged between 12 and 18 years. An *ad hoc* questionnaire was applied to collect socio-demographic information, the *Satisfaction Scale adapted to Physical Education (ES-EF)* and the *Importance of Physical Education Scale (IEF)*. **Results:** Students were generally satisfied with low rates of boredom and attributed importance to PE, with better results in boys and extracurricular P.E.F. practitioners. Satisfaction positively predicted importance and negatively predicted boredom and both were joint predictors of satisfaction. **Conclusion:** PE teachers should implement satisfaction-enhancing methodologies to facilitate the acquisition of healthy habits.

KEY WORDS: out-of-school physical activity, adolescents, satisfaction, boredom, importance.

RESUMEN

Objetivo: Analizar la satisfacción, aburrimiento e importancia que le atribuyen los estudiantes adolescentes a la Educación Física. **Método:** Diseño transversal con la participación de 925 alumnos de secundaria y bachillerato con edades entre 12 y 18 años. Se aplicó un cuestionario *ad hoc* para recabar información sociodemográfica, la *Escala de satisfacción adaptada a la educación física (ES-EF)* y la *Escala de Importancia de la Educación Física (IEF)*. **Resultados:** El alumnado en general se encontraba satisfecho con bajos índices de aburrimiento y atribuyeron importancia a la PE, con mejores resultados en chicos y practicantes de AFD extraescolar. La satisfacción predijo positivamente

la importancia y negativamente el aburrimiento y ambos fueron predictores conjuntamente de la satisfacción. **Conclusión:** los docentes de EF deben implantar metodologías que favorezcan la satisfacción para facilitar la adquisición de hábitos saludables.

PALABRAS CLAVE: actividad física extraescolar, adolescentes, satisfacción, aburrimiento, importancia.

INTRODUCTION

The subject of Physical Education (PE) is of great importance in order to ensure a minimum number of hours to achieve the recommendations of the World Health Organisation (WHO). 60 minutes per day for 5-17 year olds with 3 days of intense load will improve the obesity rate and quality of life in both young people and adults (1). In this sense, at national or regional level, they are promoting an increase in the number of hours of PE, as in the case of Andalusia (2), as well as different projects in educational centres in Spain (3-5). Even so, the average time of motor engagement during PE classes is 36.35%, according to the systematic review of Martínez-Hita et al. (6), with students in Secondary Education (HE) centres being aware of the importance of out-of-school physical activity in sport (AFDE) in terms of prevention and health improvement (7).

On the other hand, sport abandonment in young people occurs in a higher percentage in the juvenile stage (16-17 years), which may be caused by negative experiences in competitive results (8). In this sense, it is necessary to create habits from a young age to try to avoid the different reasons for dropping out, such as study, laziness, work, the timetable and change of residence in young people, economic reasons in middle age and the degree of satisfaction or low use of the facilities when they are older (9,10). The study of the abandonment of sports at a socio-economic and healthy level, as well as at an industrial level, is of such interest that there are even models for its prediction (11). In addition, young people who have never practised sport are also in the spotlight, citing reasons such as lack of time or laziness (10). Therefore, student satisfaction with PE is of great relevance as it can predict satisfaction with the school and increase academic performance (12). In this sense, fostering student autonomy in PE improves satisfaction with the school (13). Therefore, we should bear in mind that the greater the enjoyment/satisfaction in PE, the higher the intention to practise extracurricular sports, which could guarantee the WHO recommendations (14). In relation to the above, it is essential to know the importance that students assign to the subject, since taking into account the Self-Determination Theory, the degree of motivation will condition their habits and results (15). In this sense, according to Deci & Ryan (16), when subjects develop autonomy, competence and relationships with others, it is when intrinsic and extrinsic motivation emerge in their self-regulated forms that self-determined motivation increases. In fact, different studies have shown that the students who best valued the importance of the subject and those who were most motivated were the ones who carried out the most AFDE (17,18). Moreover, the greater the number of hours of PE, the greater the possibility of increasing learning (19), and it is capable of being a

predictor of overall academic results together with the subject of English (20). Therefore, when this need to make one's own decisions autonomously is promoted by teachers, it is when students show greater involvement and obtain better results (21-23), creating greater and better relationships between the students themselves, favouring the development of intrinsic and extrinsic motivation (24), so that greater autonomy is promoted by the teachers. This means that greater autonomy leads to greater self-determination and, consequently, greater satisfaction (25). It is possible to find in schools, teachers oriented towards a controlling teaching, despite evidence that this type of methodology is negatively related to the overall intrinsic motivation of the students (26), so innovative, dynamic and fun sessions will have a positive impact on students (27).

In relation to the above, the aim of the study was to analyse the satisfaction, boredom and importance attributed by students in HE schools to the subject of PE, taking into account the degree of AFDE, gender, educational stage and type of school, as well as the relationship between the factors.

MATERIAL AND METHODS

Design and Participants

Non-experimental, descriptive, cross-sectional study with the participation of 925 adolescents between 12 and 18 years of age ($M=14.43$, $SD=1.59$), 47.1% were male ($n=436$) and 52.9% female ($n=489$) selected by means of a non-probabilistic, purposive sample. All were students from the two secondary schools in the municipality of Maracena (Granada), one of which was public and taught from 1st to 4th ESO (Compulsory Secondary Education) and high school, and the other was a state-subsidised school that taught from 1st to 4th ESO (Compulsory Secondary Education). Participation was voluntary and anonymity was stressed. The study complied with the ethical principles established in the Helsinki Declaration of 1975 and was approved by the Research Ethics Committee of the University of Granada (no. 2286/CEIH/2021).

Instruments

Ad hoc questionnaire to collect socio-demographic information.

Satisfaction scale adapted to physical education (ES-EF) by Baena-Extremera et al. (28). It presents two subscales: satisfaction/boredom with five items and boredom with three items, answered on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The alpha value for the subscale satisfaction/fun and boredom was 0.92 and 0.79 respectively (28). For this study Cronbach's alpha was 0.86 and 0.61 respectively.

Importance of Physical Education Scale (IEF). It measures the importance and usefulness attached by the student to PE (29). It consists of three items. It is a Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree).

Moreno Murcia et al. (30) demonstrated its internal validity, as well as its reliability in the field of PE with Cronbach's alpha of 0.75, being 0.74 for this study.

Procedure

Contact was made with the head teachers and teachers of the subject of PE at the schools. The questionnaire was in paper format and was given to the respondents in person before the sessions, with prior information about the objectives of the study and with the consent of the families and management teams.

Statistical Analysis

Data were analysed using IBM SPSS Statistic 26. Continuous variables were presented with mean, standard deviation and 95.0% confidence interval and categorical variables in frequencies (percentages). The normality of the variables was analysed using the K-S test (*Kolmogorov-Smirnov*). Since a normal distribution was not observed, a non-parametric analysis was chosen. For the main analysis with quantitative variables, a comparison of means was carried out using the Mann-Whitney U-test and if the independent variable had more than two categories, the Kruskal-Wallis H-test was used. For the relationship between the dimensions of the questionnaires, Spearman's correlation was used. With qualitative variables, the Chi2 or Fisher's test was used. Stepwise multiple regression analysis was used to explore which variables could explain the variation in the dependent variable. The requirements for including an independent variable in the multiple regression analysis were: 1) the correlation coefficients between the dependent and independent variable were significant; and 2) the correlation coefficients between the independent variables were equal to or less than 0.70. Statistical significance was set at $p < 0.05$.

RESULTS

Table 1 shows the means and standard deviation of the factors (satisfaction and boredom) in relation to gender, educational stage (age), type of school and extracurricular practice.

Table 1. Satisfaction and boredom in the subject of PE (ES-EF).

Variables	Satisfaction		Boredom		
	M	SD	M	SD	
Sex	Male(n=436)	4,36	0,76	1,75	0,81
	Female(n=489)	3,98	0,89	2,01	0,89
Educational stage (age)	First cycle ESO(n=375)	4,16	0,87	1,86	0,87
	Second cycle ESO(n=379)	4,24	0,83	1,84	0,84
	High school (n=171)	3,99	0,83	2,02	0,90
Educational centre	Public(n=745)	4,11	0,87	1,92	0,88
	Concerted(n=180)	4,38	0,70	1,76	0,77
Out-of-school practice	Not practising (n=147)	3,72	0,98	2,25	0,94
	Before yes, now no(n=263)	4,05	0,84	1,99	0,91
	Practice(n=515)	4,34	0,75	1,73	0,77

ES-EF: Satisfaction scale adapted to physical education; PE: Physical education; M: Mean; SD: Standard Deviation; ESO: Compulsory Secondary Education; n: number of people in the sample.

There was significance in both satisfaction and boredom as a function of gender ($p=0.000$). It was the boys who enjoyed it the most and were the least bored. No significant differences were found in satisfaction and boredom with respect to the educational stage between the first and second cycle ($p> 0.05$), although there were significant differences between the first cycle and high school ($p=0.004$ satisfaction and $p=0.038$ boredom). The same was true for the second cycle and high school ($p=0.000$ satisfaction and $p=0.027$ boredom). In this sense, students in the first and second cycle were more satisfied and less bored than those in the high school. Students at the state-subsidised school showed higher satisfaction and lower boredom rates than those at the public school, with significant differences ($p=0.000$ and $p=0.049$ respectively). Significant differences were also found when they had never practised and when they had abandoned extracurricular practice ($p=0.001$ satisfaction and $p=0.005$ boredom) and among the rest of the possible relationships of the variable "extracurricular sports practice" ($p=0.000$). Those who practised were more satisfied and less bored than those who had stopped practising and, in turn, the latter were also more satisfied and less bored than those who had never practised.

Table 2 shows the means and standard deviation of the importance attributed by students to PE in relation to gender, educational stage (age), type of school and extracurricular activity.

Table 2. Importance of the PE subject (IEF).

Variables	Importance PE		
	M	SD	
Sex	Male(n=436)	3,31	0,64
	Female(n=489)	2,96	0,69
Educational stage (age)	First cycle ESO(n=375)	3,14	0,54
	Second cycle ESO(n=379)	3,21	0,43
	High school(n=171)	2,89	0,73
Educational centre	Public(n=745)	3,08	0,71
	Concerted(n=180)	3,31	0,55
Out-of-school practice	Not practising (n=147)	2,76	0,77
	Before yes, now no(n=263)	3,07	0,67
	Practice(n=515)	3,26	0,64

IEF: Physical Education Importance Scale; PE: Physical Education; M: Mean; SD: Standard Deviation; ESO: Compulsory Secondary Education; n: number of persons in the sample.

Boys rated the importance of the subject of PE higher ($p=0.000$). Differences were found with respect to educational stage, with significance values of $p=0.037$ between first and second cycle and $p=0.000$ between first cycle and high school. In addition, pupils at the state-subsidised school attributed greater importance to the subject than those attending the public school ($p=0.000$). Those who had never practised were those who gave less importance to the subject, finding differences between them and those who had dropped out, as well as with those who practised ($p=0.000$ and $p=0.000$ respectively). The same significance was found between students who had dropped out and those who practised.

Regression analysis

Table 3 shows the correlations between the factors of the IEF and ES-EF questionnaire.

Table 3. Bivariate correlations (Spearman) of the factors.

Variables	Importance (IEF)	Satisfaction (ES-EF)	Boredom (ES-EF)
Importance	1	0,604**	-0,381**
Satisfaction	0,604**	1	-0,578**
Boredom	-0,381**	-0,578**	1

IEF: Physical education importance scale; ES-EF: Satisfaction scale adapted to physical education.

Note *($p<0.05$): **($p<0,01$).

Table 4 shows the extent to which variables that behave as independent variables are able to predict the dependent variables when they themselves behave as such.

Table 4. Multiple linear regression model (Stepwise) to determine possible predictors of the dependent variables.

Dependent variables	Independent variables	β	t	p
Importance (IEF)	Satisfaction	0,631	24,724	0,000
Satisfaction (ES-EF)	Boredom	-0,459	-19,416	0,000
	Importance	0,442	18,682	0,000
Boredom (ES-EF)	Satisfaction	-0,641	-25,397	0,000

IEF: Physical education importance scale ; ES-EF: Satisfaction scale adapted to physical education.

Bivariate correlations were recorded for 3 dependent variables (table 3) and 3 different regression models (ANOVA) were obtained between them (table 4).

Regression analyses revealed that satisfaction (ES-EF), was a significant predictor of importance (IEF) and explained 39.8% of the variance in their scores (Adjusted $R^2=39.8\%$; $F=611.276$; $p=0.000$). The combination of boredom (ES-EF) and importance (IEF) explained 57.2% of satisfaction (ES-EF) (Adjusted $R^2=57.2\%$; $F=349.034$; $p=0.000$), with boredom (ES-EF) being the strongest predictor. And finally, the third model found that satisfaction (ES-EF) explained 41.1% of boredom (Adjusted $R^2=41.1\%$; $F=64.025$; $p=0.000$).

DISCUSSION

The purpose of the study was to analyse the satisfaction, boredom and importance that adolescent students feel or attribute to the subject of PE.

A reduction in satisfaction and importance ratings was detected with an increase in boredom in the subject upon reaching the high school, which may be due to the optional nature of the subject and a teaching methodology with low motor engagement during the classes (2). Another explanation may be the lack of extracurricular practice as age increases, as well as the low ratings of satisfaction and importance of PE, and the fact that parents, the older their children get, become less influential over them (31).

Motivation, which is closely related to satisfaction, is the first cause of sport abandonment, although lack of time is often also a factor (32). In this sense, if participants feel satisfied with the subject of PE and attach a high degree of importance to it, this will ensure to a greater extent that they remain in the AFDE (14). Therefore, taking into account the results, it could be determined that there was a low degree of possible extracurricular sport dropout of the students because their ratings regarding satisfaction and importance were high and, regarding boredom, low.

With respect to gender, boys showed greater importance and satisfaction with respect to PE and greater adherence to extracurricular sports practice than girls, as was demonstrated in the study of Baños et al. (33) where boys

considered PE to be important, although they were disobedient and disruptive in class, a fact that may have led to lower satisfaction in girls, who were more aggressive, had lower self-esteem and were not interested in pursuing performance.

In addition, having a high degree of satisfaction with the subject leads to a higher degree of importance being attached to it. In this respect, the results revealed that the higher the one factor, the higher the other, and that the majority of students perceived this to be the case, with the exception of non-practitioners who showed lower values. Thus, it coincides with Balázs et al. (34). The results showed that the teachers did not perceive their students as valuing the subject and, therefore, this could have an impact on a teaching style not oriented towards autonomy, when it has already been shown that PE classes with a vigorous motor commitment and oriented towards personal development will improve competence and intrinsic motivation, which are determinants of satisfaction (35). On the other hand, with the transition from primary to secondary school, a reduction in the values of autonomy, competence and relationship with others was demonstrated. In this sense, as we also found a reduction in satisfaction, importance and an increase in boredom in the transition from ESO to high school, it would be interesting to establish a system of methodological coordination for the transitions from secondary school to high school (36).

Regarding the possible influence of the type of educational centre on greater satisfaction in PE, Gavala González (32) study revealed that students from public schools dropped out more due to lack of motivation, while those from private and subsidised schools did so due to incompatibility in their studies. These data are related to those obtained, since students at the subsidised school attributed greater importance and felt more satisfied with PE than those attending the public school, although this may be due to the fact that, as there was no high school at the school, the values remained higher.

Furthermore, those who had practised or were practising the most AFDE were the most satisfied, coinciding with studies indicating that greater satisfaction in the subject was associated with a greater intention to practise outside school (37).

In relation to boredom and its relationship with the importance of PE, there was agreement with Granero-Gallegos et al. (18) in which it was found to be significant, in contrast to the study by Baños et al. (27). The relationship was negative in all cases. On the other hand, satisfaction and attributed importance also correlated positively and significantly, data coinciding with Baena-Extremera et al. (25), being satisfaction a predictor of importance and boredom, although we should not forget the importance of self-efficacy and competence in the development of objectives in practice. (38) as the study by Morales-Sánchez et al. (39) study found them to be predictors of both satisfaction and boredom.

CONCLUSIONS

Adolescent students in the municipality's schools generally enjoy, are not bored and attach great importance to the subject of PE, with boys showing higher rates than girls in all three factors.

The percentage of students practising AFDE decreased from ESO to high school, with boys being more likely to do so than girls.

ESO students enjoyed it more, were less bored and rated the importance of PE more highly than those in high school. In addition, those who attended the school and took part in AFDE rated all three factors higher, with boys reporting higher rates than girls.

Satisfaction positively predicted importance and negatively predicted boredom and both were joint predictors of satisfaction.

REFERENCES

1. Organización Mundial de la Salud. Ginebra; 2020. Directrices de la OMS sobre actividad física y hábitos sedentarios: de un vistazo; [citado 26 noviembre 2022]. Disponible en: <https://www.who.int/es/news-room/fact-sheets/detail/physical-activity>
2. Decreto 182/2020, de 10 de noviembre, por el que se modifica el Decreto 111/2016, de 14 de junio, por el que se establece la ordenación y el currículo de la Educación Secundaria Obligatoria en la Comunidad Autónoma de Andalucía. Boletín Oficial de la Junta de Andalucía. 221, de 16 de noviembre de 2020:28-37. <https://www.juntadeandalucia.es/boja/2020/221/5>
3. Carriedo A, Cecchini JA. ¿Cómo aumentar la actividad física diaria dentro del horario escolar? Ejemplo de un proyecto de intervención interdisciplinar entre educación física y matemáticas. *Journal of Sport and Health Research*. 2019; 11(Supl 1):187–196. <https://doi.org/https://recyt.fecyt.es/index.php/JSHR/article/view/80943>
4. Heras-Bernardino C, Pérez-Pueyo Á, Hortigüela-Alcalá D, Casado-Berrocal, Ó. La encrucijada de la Educación Física actual: ¿calidad y/o cantidad? Ejemplo de aumento de horas lectivas a través de un Proyecto Deportivo de Centro. *Espiral, Cuadernos del Profesorado*. 2019; 12(25):60–74. <https://doi.org/10.25115/ecp.v12i25.2402>
5. Pérez-Pueyo Á, Hortigüela-Alcalá D, Fernández-Fernández J, Gutiérrez-García C, Rodríguez LS. Más horas sí, pero ¿cómo implantarlas sin perder el enfoque pedagógico de la Educación Física? *Retos*. 2021; 39:345–353. <https://doi.org/10.47197/retos.v0i39.80283>
6. Martínez-Hita FJ, García-Cantó E, Gómez-López M, Granero-Gallegos A. Revisión sistemática del tiempo de compromiso motor en Educación Física. *Cultura, Ciencia y Deporte*. 2021; 16(49):365-378. <http://dx.doi.org/10.12800/ccd.v16i49.1609>
7. Tárrega J, Alguacil M, Parra D. Análisis de la motivación hacia la práctica de actividad física extraescolar en educación secundaria. *Multidisciplinary Journal of Educational Research*. 2018; 8(3):259–280. <https://doi.org/10.17583/remie.2018.3754>
8. Sánchez Martínez B, Gómez Alonso MT. La competición deportiva: del abandono deportivo a la superación personal. *Inclusiones*. 2019; 6:413–440. <https://dialnet.unirioja.es/servlet/articulo?codigo=7899071>
9. Martín Ramírez C. Motivos de abandono de la práctica deportiva en centros fitness ubicados en entornos escolares [Tesis doctoral en internet]. Madrid: Universidad Politécnica de Madrid; 2017. <https://doi.org/https://doi.org/10.20868/UPM.thesis.48306>

10. Martínez Baena AC, Chillón P, Martín-Matillas M, Pérez López I, Castillo R, Zapatera B, Vicente-Rodríguez G, Casajús JA, Álvarez-Granda L, Romero Cerezo C, Tercedor P, Delgado-Fernández M. Motivos de abandono y no práctica de actividad físico-deportiva en adolescentes españoles: estudio Avena. *Cuadernos de Psicología del Deporte*. 2012; 12(1):45–54. <https://doi.org/10.4321/s1578-84232012000100005>
11. Clavel San Emeterio I, García-Unanue J, Iglesias-Soler E, Gallardo L, Felipe JL. Drop out prediction in sport centres. Definition of models and reproducibility. *Retos*.2020; 37:54–61. <https://doi.org/10.47197/retos.v37i37.71423>
12. Baños R, Baena-Extremera A, Granero-Gallegos A. The relationships between high school subjects in terms of school satisfaction and academic performance in Mexican adolescents. *International Journal of Environmental Research and Public Health*. 2019; 16(18). <https://doi.org/10.3390/ijerph16183494>
13. Baena-Extremera A, Gómez-López M, Granero-Gallegos A, Martínez-Molina M. Modelo de predicción de la satisfacción y diversión en Educación Física a partir de la autonomía y el clima motivacional. *Universitas Psychologica*. 2016; 15(2):15–25. <https://doi.org/10.11144/Javeriana.upsy15-2.mpsd>
14. Baños R. Intención de práctica, satisfacción con la educación física y con la vida en función del género en estudiantes mexicanos y españoles. *Retos*. 2020; 37:412–418. <https://doi.org/https://doi.org/10.47197/retos.v37i37.73019>
15. Stover JB, Bruno FE, Uriel FE, Fernandez Liporace M. Teoría de la Autodeterminación: una revisión teórica. *Perspectivas en Psicología*. 2017; 14(2):105–115. <https://doi.org/http://hdl.handle.net/11336/73304>
16. Deci EL, Ryan RM. The “what” and “why” of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*. 2000; 11:227-268. https://doi.org/10.1207/S15327965PLI1104_01
17. Granero-Gallegos A, Baena-Extremera A, Pérez-Quero FJ, Ortiz-Camacho MM, Bracho-Amador C. Analysis of motivational profiles of satisfaction and importance of physical education in high school adolescents. *Journal of Sports Science and Medicine*. 2012; 11:614-623. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3763306/>
18. Granero-Gallegos A, Baena-Extremera A, Sánchez-Fuentes JA, Martínez-Molina M. Perfiles motivacionales de apoyo a la autonomía, autodeterminación, satisfacción, importancia de la educación física e intención de práctica física en tiempo libre. *Cuadernos de Psicología del Deporte*. 2014; 14(2):59–69. Recuperado a partir de <https://revistas.um.es/cpd/article/view/199501>
19. Resaland GK, Aadland E, Moe VF, Aadland KN, Skrede T, Stavnsbo M, Suominen L, Steene-Johannessen J, Glosvik Ø, Andersen JR, Kvalheim OM, Engelsrud G, Andersen LB, Holme IM, Ommundsen Y, Kriemler S, van Mechelen

W, McKay HA, Ekelund U, Anderssen SA. Effects of physical activity on schoolchildren's academic performance: The Active Smarter Kids (ASK) cluster-randomized controlled trial. *Preventive Medicine*. 2016; 91:322–328. <https://doi.org/10.1016/j.ypmed.2016.09.005>

20. Baños R, Baena-Extremera A, Ortiz-Camacho MDM. Prediction Model of Academic Performance and Satisfaction With School According to Some Subjects of Compulsory Secondary Education. *Psychological Reports*. 2018; 123(2):435–451. <https://doi.org/10.1177/0033294118805004>

21. Behzadnia B, Mohammadzadeh H, Ahmadi M. Autonomy-supportive behaviors promote autonomous motivation, knowledge structures, motor skills learning and performance in physical education. *Current Psychology*. 2017; 1-14. <https://link.springer.com/article/10.1007/s12144-017-9727-0>

22. Cuevas R, García-Calvo T, González J, Fernández-Bustos JG. Necesidades psicológicas básicas, motivación y compromiso en educación física. *Revista de psicología del deporte*. 2018; 27(1):97-104. <https://archives.rpd-online.com/article/view/v27-n1-cuevas-garcia-calvo-et al/Cuevas Garcia Gonzalezet al.html>

23. Salazar-Ayala CM, Gastélum-Cuadras G. Teoría de la autodeterminación en el contexto de educación física: Una revisión sistemática. *Retos*. 2020; 38:838–844. <https://doi.org/10.47197/retos.v38i38.72729>

24. Sánchez-Alcaraz BJ, Álvarez-Ramiro M, Manzano-Sánchez D, GómezMármol A, Mayor-Gómez M. Implementation of an Autonomy Support Program. *Revista Iberoamericana de Ciencias de la Actividad Física y el Deporte*. 2017; 6(1):15–25. <https://doi.org/https://doi.org/10.24310/riccafd.2017.v6i1.3803>

25. Baena-Extremera A, Granero-Gallegos A, Sánchez-Fuentes JA, Martínez-Molina M. Modelo predictivo de la importancia y utilidad de la Educación Física. *Cuadernos de Psicología Del Deporte*. 2014; 14(2):121–130. <https://doi.org/10.4321/s1578-84232014000200013>

26. Moreno-Murcia JA, Hernández EH, Ruiz L. Perceptions of controlling teaching behaviors and the effects on the motivation and behavior of high school physical education students. *International Journal of Environmental Research and Public Health*. 2018; 15(10). <https://doi.org/10.3390/ijerph15102288>

27. Baños R, Marentes M, Zamarripa J, Baena-Extremera A, Ortiz-Camacho MDM, Duarte-Felix H. Influence of satisfaction, boredom and importance of physical education with the intention of performing extracurricular exercise amongst Mexican teenagers. *Cuadernos de Psicología Del Deporte*. 2019; 19(3):205–215. <https://doi.org/10.6018/cpd.358461>

28. Baena-Extremera A, Granero-Gallegos A, Bracho CA, Pérez-Quero FJ. Versión española del “Sport Satisfaction Instrument (SSI)” adaptado a la

Educación Física. Revista de Psicodidactica. 2012; 17(2):377–395.
<https://doi.org/10.1387/Rev.Psicodidact.4037>

29. Moreno Murcia JA, Llamas LS, Ruiz LM. Perfiles motivacionales y su relación con la importancia concedida a la EF. *Psicología Educativa*. 2006; 12(1):49-63.
<https://journals.copmadrid.org/psed/art/9327969053c0068dd9e07c529866b94d>

30. Moreno Murcia J, Coll D, Ruiz Pérez L. Self-determined motivation and physical education importance. *Human Movement*. 2009; 10(1):5–11.
<https://doi.org/10.2478/v10038-008-0022-7>

31. Lluna-Ruiz V, Alguacil M, González-Serrano MH. Análisis del disfrute con la educación física, la importancia de las clases y las intenciones de práctica en estudiantes de secundaria: comparativa por género y curso. *Retos*. 2020; 38:719–726. <https://doi.org/10.47197/retos.v38i38.76941>

32. Gavala González J. Motivaciones de los jóvenes sevillanos para abandonar la práctica de actividad físico-deportiva. *Revista Iberoamericana de Ciencias de La Actividad Física y El Deporte*. 2016; 1(1):15–23.
<https://doi.org/10.24310/riccafd.2012.v1i1.1993>

33. Baños R, Ortiz-Camacho, MDM, Baena-Extremera A, Zamarripa J. Efecto del género del docente en la importancia de la Educación Física, clima motivacional, comportamientos disruptivos, la intención de práctica futura y rendimiento académico. *Retos*. 2018; 33:252–257.
<https://doi.org/10.47197/retos.v0i33.59991>

34. Balázs F, Susan C, Henriette D, József B. Satisfaction and preferences of PE students and the head of the PE department: Meeting the new curricular expectations. *Journal of Human Sport and Exercise*. 2016; 11(1):1–18.
<https://doi.org/10.14198/jhse.2016.111.01>

35. Gråstén A, Yli-Piipari S, Huhtiniemi M, Salin K, Seppälä S, Lahti J, Hakonen, H, Jaakkola T. Predicting accelerometer-based physical activity in physical education and total physical activity: The self-determination theory approach. *Journal of Human Sport and Exercise*. 2019; 14(4):757–771.
<https://doi.org/10.14198/jhse.2019.144.05>

36. Navarro-Patón R, Lago-Ballesteros J, Basanta-Camiño S, Giráldez VA. Assessment of the basic psychological needs in physical education according to age, gender and educational stage. *Journal of Human Sport and Exercise*. 2018; 13(3):710–719. <https://doi.org/10.14198/jhse.2018.133.20>

37. Ferriz R, González-Cutre D, Sicilia Á. Revisión de la Escala del Locus Percibido de Causalidad (PLOC) para la inclusión de la medida de la regulación integrada en educación física. *Revista de Psicología del Deporte*. 2015; 24(2):329-338. https://archives.rpd-online.com/article/view/v24-n2-ferriz-gonzalez-cutre-et al/Ferriz_Gonzalez_Cutreetal.html

38. Tušak M, Corrado DD, Coco M, Tušak M, Žilavec I, Masten R. Dynamic Interactive Model of Sport Motivation. *International Journal of Environmental Research and Public Health* Article. 2022; 19(4202). <https://doi.org/https://doi.org/10.3390/ijerph19074202>

39. Morales-Sánchez V, Hernández-Martos J, Reigal RE, Morillo-Baro JP, Caballero-Cerbán, M, Hernández-Mendo A. Physical self-concept and motor self-efficacy are related to satisfaction/enjoyment and boredom in physical education classes. *Sustainability*. 2021; 13. <https://doi.org/10.3390/su13168829>