

Analysis of Basic Psychological Needs in Physical Education of school students

Análisis de las Necesidades Psicológicas Básicas en la Educación Física de estudiantes escolarizados

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Resumen

La Teoría de la Autodeterminación también es conocida como teoría de las necesidades psicológicas básicas, satisfacer estas necesidades es una tarea docente, especialmente en el contexto de la educación física que influye directamente en el bienestar psicológico hacia un mayor compromiso para la realización de las actividades físicas; las necesidades psicológicas básicas se dividen en tres apartados: autonomía, competencia y relación social, estas a su vez son fundamentales en el crecimiento personal, el desarrollo óptimo y la salud mental del ser humano, por tanto, nuestro estudio consistió en analizar las Necesidades Psicológicas Básicas en el área de la Educación Física de estudiantes escolarizados. La muestra de estudio fue conformada por 60 estudiantes escolarizados de séptimo año, cuya edad estuvo comprendida entre 10 y 11 años, como instrumento se utilizó el cuestionario de apoyo a las Necesidades Psicológicas Básicas en la Educación Física. Los resultados en el clima motivacional en relación a componente de apoyo a la autonomía, se pudo observar puntuaciones en los escolares entre 4,6 y 5 que corresponde a muy de acuerdo, es decir, que los escolares presentan un buen componente de autonomía en lo referente a las preferencias, libertad y decisiones de participación en la clase de educación física; en cuanto al clima motivacional de apoyo a la competencia, los valores se encuentra en 4,5 y 5, que corresponde a muy de acuerdo, los escolares obtuvieron puntuaciones buenas con relación a confiar en sus capacidades, conseguir los objetivos acordes a los contenidos programados; y en el componente de apoyo a las relaciones sociales, se pudo observar las puntuaciones en los escolares fue de 4,6 y 5 muy de acuerdo, es decir, que los escolares presentan un buen componente de relaciones sociales en la clase de educación física.

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Abstract

Self-determination theory is also known as the theory of basic psychological needs, satisfying these needs is a teaching task, especially in the context of physical education that directly influences psychological well-being towards a greater commitment to carrying out physical activities. ; Basic psychological needs are divided into three sections: autonomy, competence, and social relationships, in turn, are fundamental in personal growth, optimal development, and mental health of the human being, therefore, our study consisted of analyzing the Basic Psychological Needs in the area of Physical Education of school students. The study sample was made up of 60 students in school in seventh grade, whose age was between 10 and 11 years old, as an instrument the questionnaire to support the Basic Psychological Needs in Physical Education was used. The results in the motivational climate in relation to the autonomy support component, it was possible to observe a qualification in the students between 4.6 and 5 that correspond to strongly agree, that is, that the students present a good component of autonomy in relation to the preferences, freedom and decisions of participation in the physical education class; in terms of the motivational climate of support for competition, the values are found in 4.5 and 5, which correspond to strongly agree, the students obtained good results in relation to trust in their abilities, achieving the objectives according to the programmed contents; and in the component of support for social relations, it was possible to observe the qualifications in the students were 4.6 and 5 strongly agree, that is, that the students present a good component of social relations in the physical education class.

Palabras clave: Educación Física, Necesidades Psicológicas Básicas, Escolares

Keywords: Physical Education, Basic Psychological Needs, School Children

Introduction

Physical education seeks to develop motor skills (López, 2022) by promoting physical activity; it also plays an important role in the psychological well-being of students. The Self-Determination Theory (Deci and Ryan, 1985), known as the theory of the basic psychological needs of autonomy, competence, and social relationship, is fundamental for personal growth, optimal development, and mental health of the human being (Zamarripa, 2016).

It is decisive to highlight that the satisfaction of basic psychological needs not only influences psychological well-being but is also associated with greater commitment and persistence in carrying out physical activities throughout one's life (Hagger, 2019). Physical educators play a fundamental role in creating a creative environment, in which basic psychological needs suggest a motivating style of supporting the basic needs of students (Ayala, 2020), thus promoting active

participation during physical education classes, this leads from schooling and adolescence to a greater commitment to practicing physical activity throughout their lives, which improves behavior and emotional control (Hortal-Quesada, 2022).

Self-determination theory offers a valuable framework for understanding the impact related to meeting basic psychological needs in the context of physical education, where teacher motivational support focused on basic psychological needs serves as educational support, that is, self-motivation. Determined in the school environment for carrying out physical and sports activities (Bonilla, 2020).

Autonomy, competence, and social relationships are fundamental for the psychological well-being of students, where motivation is an essential element in working with students to achieve goals (Cervello, 1999; Cervello Gimeno, 2000). By incorporating motivation as a pedagogical strategy, that is, addressing the fulfillment of basic psychological needs, physical educators can contribute not only to physical development but also to the psychological and comprehensive development of their students.

Autonomy, as a basic psychological need, refers to the sense of choice and control over one's behavior (Deci and Ryan, 1985). In the field of physical education, it becomes the opportunity to make decisions about physical activities to participate in and establish personal goals that can promote the autonomy of students (Standage, Duda, and Ntoumanis, 2003) during their physical education classes. The implementation of pedagogical approaches allows students to have a choice in activities, they can contribute significantly to satisfying the need for autonomy.

Competence, as the second basic psychological need, refers to the feeling of effectiveness and achievement in activities (Deci and Ryan, 1985). Physical education provides fertile ground for developing competence, as it involves learning motor skills and overcoming physical challenges. Research such as Vallerand (1997) has highlighted the importance of structuring physical activities so that they are challenging but achievable, allowing students to experience a sense of competence and autonomy (self-control).

The need for relatedness, the third in Self-Determination Theory, refers to the search for meaningful interpersonal connections (Deci and Ryan, 1985). Physical education, by including group and collaborative activities, offers opportunities to meet this need. Studies such as that of Wang and Liu (2011) have highlighted positive social interaction in physical education environments, since they can improve emotional well-being (Moya, 2023) thanks to teacher motivation towards students, especially in the school environment. Therefore, it is essential that the teacher gets involved in the learning process, where motivation is the most important factor in learning, it has a direct impact on the learning results and the psychological-emotional states of the students (Salmon, 2022), intrinsic motivation has great importance in the teaching and learning process, as well as the way to reach students (Castro, 2023), therefore, this study analyzes the Basic Psychological Needs in the area of Physical Education of schooled students.

Materials y methods

The present study was carried out applying a qualitative-quantitative approach, that is, the mixed research, it was qualitative by the analysis of the qualities that school students present during the learning process of physical education, and quantitative by the collection of numerical data from the variable Basic Psychological Needs of the students of the Oscar Efrén Reyes school in the city of Quito.

The proposed type of research was carried out through a descriptive analysis for the construction of the state-of-the-art, a literature search was applied for the theoretical foundation, which is based on the synthetic analytical method of the proposed variables, Basic Psychological Needs and Physical Education; The query sources used were various databases such as (Google Scholar, Redalyc, Scielo, Dialnet). After the sources of consultation, fieldwork was applied with the help of the test to find the data and substantiate the results and conclusions.

Participants: Because it is a public sector school, a sample was taken for the study, which was made up of 60 seventh-year students, all students at the school level, with an age between 10 and 11 years.

Reception: 2024-08-19 / Checking: 2024-08-25 / Approval: 2024-11-10 / Publication: 2024-11-27

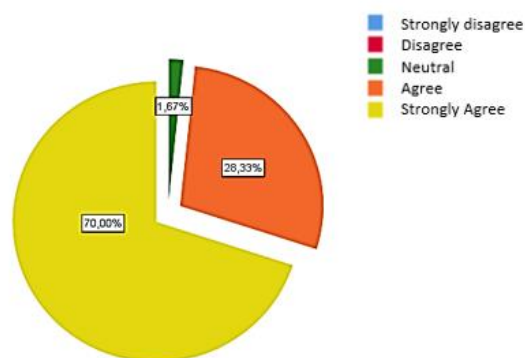
Instruments and Information Collection: During the development of the study, the technique of direct observation was used, in addition to fieldwork at the scene of the events, that is, application of the test at the Oscar Efrén Reyes school in the city of Quito; As an instrument, the structured questionnaire known as the Basic Psychological Needs Support Questionnaire (CANPB) was used, thanks to the psychometric properties in Physical Education (Oliva, 2013), the version translated into Spanish was used (Moreno, Gonzalez-Cutre, Chillón, and Parra, 2008) of the Basic Psychological Needs Measurement Scale (BPNS) (Vlachopoulos and Michailidou, 2006) this instrument was selected because it adapts the questions and answers to a Likert-type scale from 1 to 5 where 1 corresponds to totally disagree and 5 to totally agree, which is adapted to the study population since it is schoolchildren.

The respective fieldwork was carried out to analyze the components of Autonomy, Competence, and Social Relationships of the schoolchildren, the data processing was carried out using the Excel software package, and the analysis and statistical treatment was carried out with the SPSS version 25 software. Below are the main results.

Results and discussion

Figure 1. shows that 70% of the students agree completely, 28.3% agree and only 1.7% are neutral in relation to the preferences that the students have with respect to the activities to be carried out in physical education classes.

Figure 1. We are often asked about our preferences regarding the activities to be performed



Reception: 2024-08-19 / Checking: 2024-08-25 / Approval: 2024-11-10 / Publication: 2024-11-27

In Figure 2. Regarding the question of relating in a friendly manner with classmates in physical education class, it can be clearly observed that 57% of the students agree completely, 37% agree and only 6% are neutral in relation to confidence and ability to do the tasks well.

Figure 2. Encourages us to trust in our ability to do our homework well

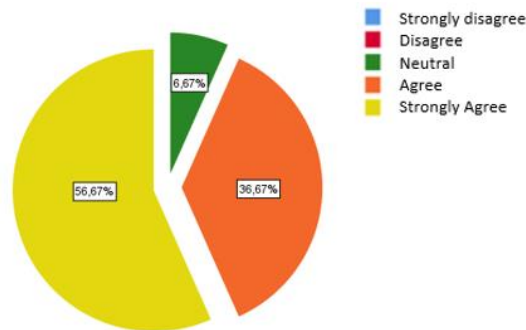


Figure 3. It can be seen that 60% of the students agree completely, 33.3% agree and only 6.7% are neutral in terms of encouraging good relations among classmates during physical education classes.

Figure 3. Always encourages good relations among classmates

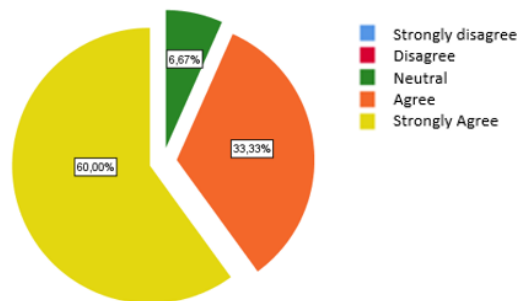
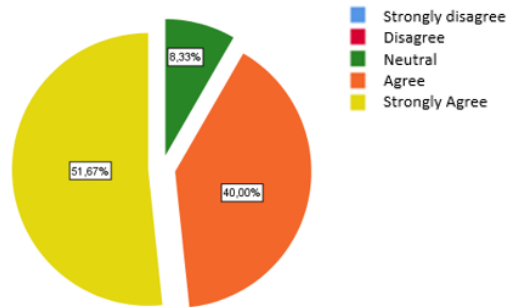


Figure 4. It can be seen that 51.7% of the schoolchildren totally agree, 40% agree and 8.3% are neutral in relation to the question of trying to ensure that there is freedom to carry out the activities when developing the physical education class.

Figure 4. Try to make sure that we have freedom when carrying out the activities.

Reception: 2024-08-19 / Checking: 2024-08-25 / Approval: 2024-11-10 / Publication: 2024-11-27



In the Figure 5. Regarding the question of proposing activities adjusted to the level and needs of the students during the physical education class, it can be clearly observed that 65% of the students agree completely, 33.3% agree and only 1.7% are neutral in relation to companionship.

Figure 5. It proposes activities adjusted to our level.

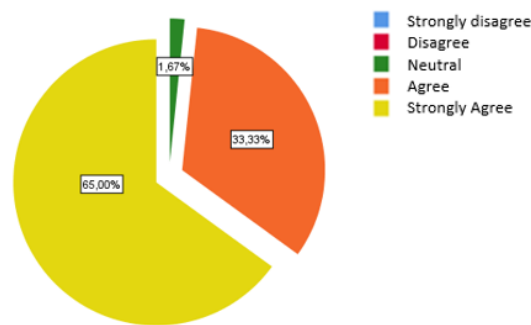
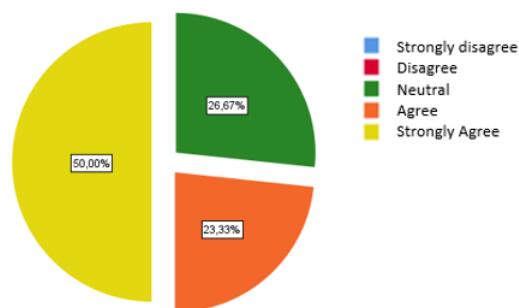


Figure 6. shows that 50% of the students totally agree, 23.3% agree and 26.7% are neutral on the question of favoring a good educational environment among students in physical education classes.

Figure 6. It favors a good atmosphere among classmates



Reception: 2024-08-19 / Checking: 2024-08-25 / Approval: 2024-11-10 / Publication: 2024-11-27

In the Figure 7. Regarding the question of taking into account the opinion of the students when performing exercises in the physical education class and even performing tasks considered difficult, it can be clearly observed that 58% of the students are in total agreement, 38% in agreement and only 4% are neutral in relation to the development of the classes.

Figure 7. They take our opinion into account in the development of the classes

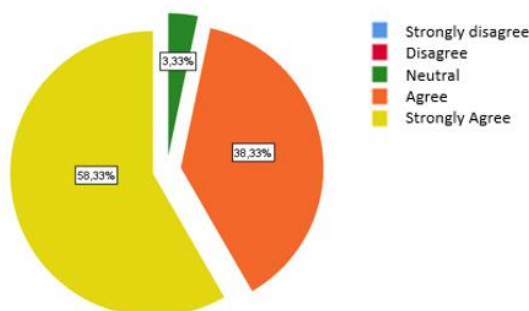


Figure 8. It can be seen that 63% of the students totally agree, while 37% agree with the question of always achieving the objectives set out in the physical education class.

Figure 8. Always try to achieve the objectives set out in the activities

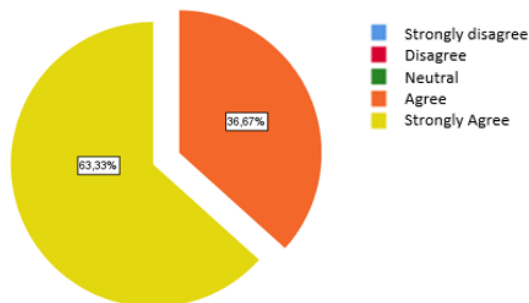


Figure 9. shows that 71% of the students totally agree, 27% agree and 2% are neutral in relation to the question about promoting that all students feel integrated during physical education classes.

Figure 9. Promotes that all students feel integrated

Reception: 2024-08-19 / Checking: 2024-08-25 / Approval: 2024-11-10 / Publication: 2024-11-27

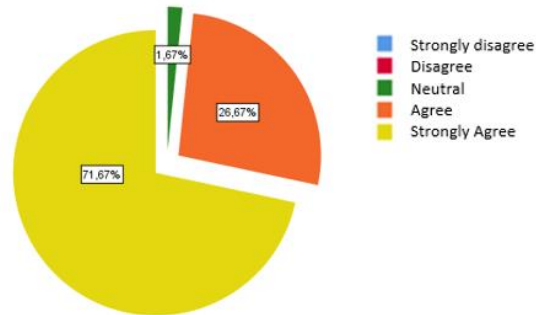


Figure 10. shows that 72% of the students totally agree, 20% agree, 7% are neutral and only 1% disagree in relation to the question that the teacher lets the students make decisions during physical education classes.

Figure 10. He lets us make decisions during the development of the tasks

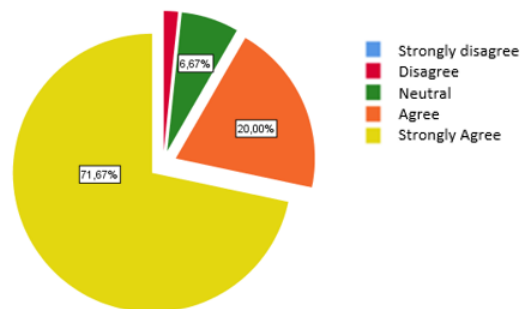
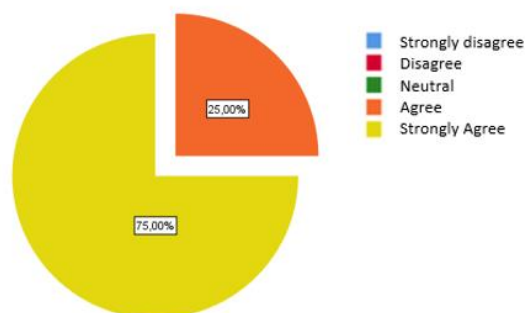


Figure 11. Regarding the question related to fostering learning towards significant improvement, complying with the contents programmed for the physical education class, it is clearly observed that 75% of the schoolchildren are in total agreement, 25% in agreement.

Figure 11. Encourages learning and improvement of the contents of the subject



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Figure 12. It can be seen that 77% of the students agree completely, 22% agree and only 1% are neutral with respect to the question related to the teacher helping to resolve conflicts amicably.

Figure 12. He helps us resolve conflicts amicably

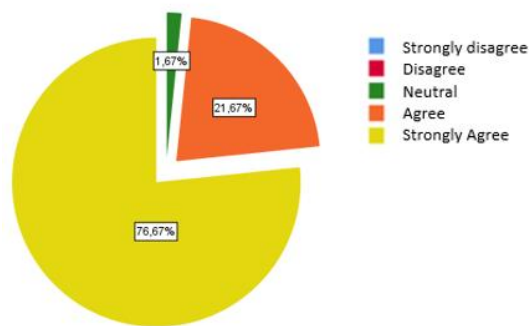


Table 1. Autonomy Support

Items	Subjects	Mean	Median	Deviation	Minimum	Maximum
1. He often asks us about our preferences regarding the activities to do.		4,5	5	0,88	3	5
4. He tries to give us freedom when it comes to doing activities.		4,7	5	0,98	3	5
7. Takes into account our opinion in the development of the classes.	60	4,6	5	0,95	4	5
10. He allows us to make decisions during the development of the tasks.		4,7	5	0,91	4	5
		4,6	5	0,93	3,5	5

In Table 1, referring to the motivational climate in relation to the autonomy component, it was possible to observe the scores of the students, whose mean is 4.6 and the median is 5, the percentages of standard deviation were 0.93; a minimum value of 3.5 was obtained and a maximum value of 5 which corresponds to Very much in agreement; with which it can be affirmed that the students present a good component of autonomy about preferences, freedom and participation decisions during the physical education class.

Table 2. Competence Support

Items	Subjects	Mean	Median	Deviation	Minimum	Maximum
2. Encourages us to have confidence in our ability to do the tasks well.	60	4,6	5	0,94	3	5
5. Suggest activities adjusted to our level.		4,4	5	0,91	4	5
8. He always tries to make us achieve the objectives set out in the activities.		4,2	5	0,85	3	5
11. Encourages the learning and improvement of the contents of the subject.		4,7	5	0,97	4	5
		4,5	5	0,92	3,5	5,0

Table 2, corresponding to the motivational climate of competence support, clearly shows the values of the scores of the students, whose mean is 4.5 and the median is 5, the percentages of standard deviation were 0.92; a minimum value of 3.5 was obtained, and a maximum value of 5 which corresponds to Very much in agreement; with the data found in the competence component it can be mentioned that the students obtained good scores in relation to trusting in their abilities, achieving the objectives according to the programmed contents during the physical education class.

Table 3. Social Relations Support

Items	Subjects	Mean	Median	Deviation	Minimum	Maximum
3. Always encourages good relationships among classmates.	60	4,5	5	0,9	3	5
6. Encourages a good atmosphere among classmates.		4,6	5	0,97	3	5
9. Promotes that all the students feel integrated.		4,5	5	0,95	4	5
12. It helps us to resolve conflicts amicably.		4,6	5	0,98	3	5
		4,6	5,0	0,95	3,3	5,0

In Table 3, pertinent to the motivational climate of the component of support for social relations, it was possible to observe the scores in the schoolchildren, whose mean is 4.6 and the median is 5, the percentages of standard deviation were located at 0.95; obtaining a minimum value of 3.3 and a maximum value of 5 which corresponds to Strongly agree; the analysis of the data shows that the schoolchildren present a good component of social relations in the physical education class.

Conclusions

Based on the data analysis of the component related to autonomy, it can be concluded that the vast majority of the students of the Oscar Efrén Reyes School in the city of Quito present significant values in relation to the interest and pleasure in practicing physical education, and they also agree with the activities that are carried out, which assumes that the students present autonomy during the development of physical education classes.

In the motivational component referring to competence, the students obtained significant values in relation to the performance of tasks and trying to improve motor skills; they are also optimistic in the execution of the tasks considered difficult during the physical education class.

According to the analysis of the social relations component, the students of the Oscar Efrén Reyes school in the city of Quito present a significant motivational profile, since the results affirm that they can relate to each other in a friendly manner, in addition, each student feels an important part of the group of friends, thus strengthening the psycho-social aspect in the students.

Analyzing the three components as a general state of well-being of the basic psychological needs of the students of the Oscar Efrén Reyes School in the city of Quito, it can be seen that, in the context of physical education, the students participate actively, thus promoting decision-making and self-regulation, that is, they have the opportunity to express their opinions, interests, and preferences, which strengthens intrinsic motivation.

In terms of competence, the perception of ability and effectiveness in performing tasks is fundamental, this is how they experience progress in each of their activities, which provides the opportunity to face and overcome obstacles.

The social relationship refers to the need for connection and belonging with all peers; generating an inclusive, respectful, and participatory educational environment where students feel safe to express themselves and develop real emotional support, which leads to greater academic commitment, better school performance, i.e., greater motivation to learn and practice physical education.

Acknowledgments: The authors would like to thank the Universidad Técnica de Ambato (UTA) and the Dirección de Investigación y Desarrollo (DIDE) for their support for this work. Proyecto PFCHE23 Procesos de motivación y uso de Tecnologías de Aprendizaje y Conocimiento en los estudiantes universitarios.

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Reception: 2024-08-19 / Checking: 2024-08-25 / Approval: 2024-11-10 / Publication: 2024-11-27

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