Cooperative games in primary school students: Levels and dimensions in the physical education class

Juegos cooperativos en estudiantes de primaria: niveles y dimensiones en la clase de educación física

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Abstract

Cooperative games are presented as an effective pedagogical strategy for fostering social, emotional, and teamwork skills, which are essential for both learning and school coexistence. In this context, the present study aimed to analyze the levels of development of cooperative games and their main dimensions in the area of physical education, specifically among elementary school students. To this end, the goal was to identify the levels achieved in dimensions such as active participation, collaboration, respect, communication, empathy, and conflict resolution. The research adopted a quantitative approach, with a descriptive, non-experimental cross-sectional design. A validated checklist was applied to a sample of 503 students, aged 10 to 13, selected through non-probability convenience sampling. The results revealed that the majority of students had low levels of active participation (66.2%), conflict resolution (69.6%), and empathy (69.4%). In contrast, only moderate progress was observed in the dimensions of collaboration and respect. These findings reflect a limited consolidation of cooperative skills, which negatively impacts the classroom climate and the quality of collective learning. In conclusion, there is a clear need to incorporate sustained pedagogical strategies that strengthen coexistence, teamwork, and the

development of socio-emotional skills through the intentional use of cooperative games in school physical education.

Keywords: physical education, social skills, cooperative games.

Resumen

Los juegos cooperativos se presentan como una estrategia pedagógica eficaz para fomentar habilidades sociales, emocionales y de trabajo en equipo, las cuales son fundamentales tanto para el aprendizaje como para la convivencia escolar. En este contexto, el presente estudio tuvo como objetivo analizar los niveles de desarrollo de los juegos cooperativos y sus principales dimensiones en el área de educación física, específicamente en estudiantes de primaria. Para ello, se buscó identificar los niveles alcanzados en dimensiones como la participación activa, la colaboración, el respeto, la comunicación, la empatía y la resolución de conflictos. La investigación adoptó un enfoque cuantitativo, con un diseño descriptivo y no experimental de tipo transversal. Se aplicó una lista de cotejo validada a una muestra de 503 estudiantes, con edades entre 10 y 13 años, seleccionados mediante un muestreo no probabilístico por conveniencia. Los resultados revelaron que la mayoría de los estudiantes presenta niveles bajos en participación activa (66,2 %), resolución de conflictos (69,6 %) y empatía (69,4 %). En contraste, solo en las dimensiones de colaboración y respeto se observaron avances moderados. Estos hallazgos reflejan una consolidación limitada de las habilidades cooperativas, lo que repercute negativamente en el clima del aula y en la calidad del aprendizaje colectivo. En conclusión, se evidencia la necesidad de incorporar estrategias pedagógicas sostenidas que fortalezcan la convivencia, el trabajo en equipo y el desarrollo de competencias socioemocionales, mediante el uso intencionado de juegos cooperativos en la educación física escolar.

Palabras clave: educación física, habilidades sociales, juegos cooperativos.

Introduction

In the current pedagogical context, sports are established as a key activity for knowledge acquisition and skill development, as reflected in their presence as a curricular component at all levels and modalities of educational systems worldwide. Their relevance extends beyond physical conditioning and the benefits they provide to the human body; they also open a wide array of possibilities to integrate essential values such as collaboration and teamwork. This is because sports promote a collective approach, where players, with their unique characteristics and potentials, must coordinate and complement each other, either directly or indirectly, throughout the various phases of competitive development.

For this reason, one of the most commonly employed traditional models in the teaching of team sports within physical education has been the "teamwork" approach. This model conceives the team as a group of two or more individuals who, being interdependent in the activity, seek to achieve a common outcome or goal. In the realm of physical education, García-Pérez et al. (2024) define a team as "a restricted number of players who work together to achieve a goal." The central characteristic of all these models is the attainment of an objective through the collective effort of its members, leading to the designation of these activities as "team" or "collective" games. However, this designation does not always account for the dichotomy with individual sports, where collaboration is not the primary focus, and teamwork is not an essential part of their definition.

In this regard, Villarreal Ángeles et al. (2024) argue that cooperative games are physical activities in which players must unite to discover how to achieve efficient performance through the interaction and contributions of each participant. In these types of games, the notion of rivalry disappears, as the main objective is to achieve collective success, with players' motivation stemming from the need to collaborate to reach the proposed goal. As the difficulty of the objective increases or more individuals manage to achieve it, the game becomes more motivating. Interaction among players is essential to accomplish the objective. For instance, if two individuals need to run several kilometers together, the interaction generated can be more beneficial for both than if each were to run separately.

Consequently, for cooperative games to develop effectively, it is crucial to assign each player a specific role or task, allowing each team member to reach their maximum potential. Furthermore, at the end of the game, it is necessary to evaluate the achievements obtained, considering previously established parameters and following an agreed-upon schedule (Mendoza-Zambrano et al., 2023).

In this context, Echeverría-Caranqui et al. (2021) note that, particularly in rhythmic gymnastics, cooperative learning is a widely used modality in physical education. However, its effectiveness depends on proper implementation. Inadequate use of this organization can lead to two significant errors: on one hand, the relevance

of group work, distinct from individual or alternating efforts, may not be understood, hindering meaningful learning; on the other hand, specific activities related to coordinative learning, such as synchronized movements, may be trivialized, including the use of accessories and the execution of choreographies where all participants must coordinate. Various studies have explored the possibility of transferring initial learning to other contexts, suggesting that, if designed appropriately, cooperative experiences can hold significant educational value and be applied transversely in other areas of motor and cognitive development.

Thus, cooperative games in physical education solidify as a methodological alternative that significantly enhances the learning of educational objectives, engaging all students equally. According to Baquero Trujillo & Castro Williams (2022), in early childhood education, the most effective activities for the child's holistic development are based on active participation and play. The methodology of cooperative learning, through various teaching styles, enables children to form small groups with diverse skills, working collaboratively towards a common goal. In this context, the development of social skills, such as communication and role change, becomes fundamental. Cooperative games, both formative and regulated, possess high potential to capture students' attention, even surpassing traditional methodologies. Vásquez Calderón et al. (2025) emphasize that educators recognize that no other educational activity generates as much interest in children as a well-structured playful dynamic. Through play, students not only remain more focused but also develop active participation within the team, reinforcing their sense of commitment and shared responsibility. Even when a student verbally expresses the importance of collaboration, it is in the practice of play that their willingness to contribute, motivate, and engage their peers truly manifests. Thus, cooperative play becomes an effective pedagogical tool for promoting involvement, shared leadership, and teamwork within the classroom.

It is important to note that, although cooperative learning is not a completely new practice in education, it continues to have a strong presence in schools, universities, and other training spaces. In fact, Almeida (2025) asserts that one of the most influential pedagogical movements in recent years has been "cooperate to learn," utilizing methods ranging from teamwork to more structured cooperative learning programs. This necessitates a deep understanding of what occurs in the classroom when teaching in teams.

According to Lavanchy (2023), one of the most relevant and widely accepted explanations is the theory of social cognitive learning, which posits that learning is based on the mental operations performed by the student based on their experiences. While rewards play an important role, individuals act based on the experiences others have had while engaging in the same activity, thereby reinforcing their own learning and sometimes eliminating the need for external rewards.

Chávez & Barahona (2024) state that teamwork not only seeks to obtain different perspectives on a topic but also promotes peer learning, as each member contributes distinct skills and experiences, enriching the formative process and generating new learnings that may not be achieved individually.

Considering all of the above, the present study aims to analyze the levels of development of cooperative games and their dimensions in the area of physical education among primary school students. To this end, fundamental aspects such as active participation, collaboration, respect, communication, empathy, and conflict resolution were evaluated. Thus, the research seeks to identify the extent to which these skills are present in the school context and how they manifest during physical activities. Understanding these levels will allow for the proposal of pedagogical strategies that strengthen teamwork and school coexistence. Furthermore, the study aims to highlight the importance of cooperative games as a formative tool. The results obtained will serve as a foundation for designing more inclusive and effective educational interventions.

Methodology

The present research is empirical in nature, utilizing a quantitative approach and a non-experimental cross-sectional descriptive design aimed at studying and analyzing a sample at a single point in time.

For this study, fifth and sixth-grade students from regular primary education were considered. Inclusion criteria required participants to be aged between 10 and 13 years, enrolled in school, and to have provided informed assent and consent to participate in the research. Conversely, students who did not complete the questionnaire in its entirety, as well as those with evident cognitive difficulties that hindered proper understanding of the applied instruments, were excluded. The sample selection was conducted non-probabilistically and based on convenience.

To determine the sample size, the G*Power program version 3.1.9.7 (Faul et al., 2007) was utilized, considering a bivariate correlation test with a medium effect size ($r = 0.30$), a significance level (α) of 0.05, and a statistical power ($1 - \beta$) of 0.80. Based on these parameters, a minimum sample size of 503 participants was calculated.

Additionally, a checklist consisting of 18 items was developed, distributed across the following dimensions: active participation (3 items), collaboration and teamwork (4 items), respect and effective communication (4 items), conflict resolution (3 items), and empathy and understanding (4 items). This instrument was validated through expert judgments and demonstrated a KR-20 reliability of 0.92, with a scoring scale of 0 = No, 1 = Partially, and 2 = Yes. The application was conducted collectively.

Furthermore, the structural validity of the instrument was assessed through confirmatory factor analysis, yielding adequate fit indices and factor loadings ranging from 0.51 to 0.78. Regarding reliability, a high internal consistency was reported, with a Cronbach's alpha coefficient of α = 0.88 for the total checklist. These results support the validity and reliability of the instrument for evaluating cooperative games among primary school students.

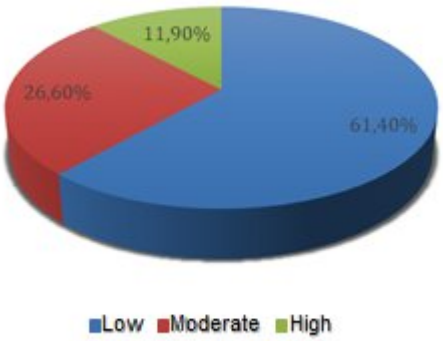
Results

To analyze the levels of development of cooperative games in the context of physical education among primary students, an instrument designed to assess various key dimensions related to this practice was applied. These dimensions included active participation, collaboration and teamwork, respect and effective communication, conflict resolution, and empathy and understanding.

Based on the collected data, graphical representations were created to reflect the overall performance of students in each of these areas. These results allow for the identification of both strengths and areas for improvement within the evaluated group, providing a solid foundation for pedagogical decision-making aimed at promoting inclusion, cooperation, and holistic development in physical education.

Figure 1

General levels of cooperative games in primary students



Through Figure 1, it is observed that 61.4% of students are at a low level regarding cooperative games. This finding highlights an insufficient consolidation of cooperative practices in the physical education classroom, emphasizing the need to implement active methodologies that foster teamwork and collaboration among students.

Figure 2

Level of active participation in cooperative games

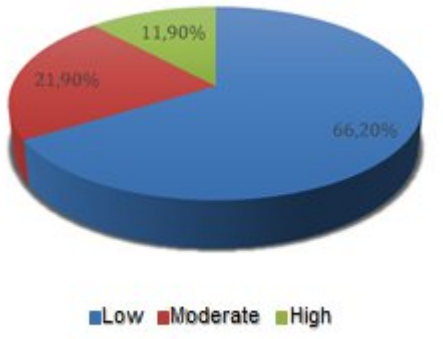
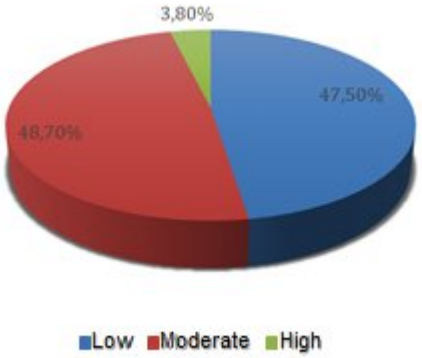


Figure 2 shows that the majority of students (66.2%) are at a low level of active participation. This situation reflects limited individual engagement within collective dynamics, which may negatively impact both the quality of

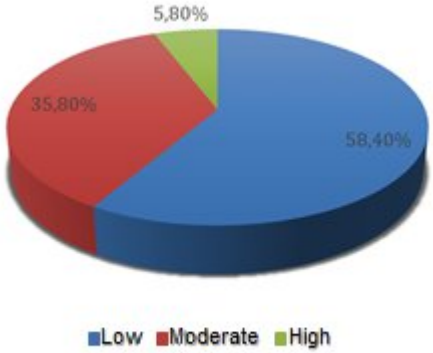
learning and group cohesion. Therefore, it is essential to implement strategies that encourage more committed and consistent participation.

Figure 3
Level of collaboration and teamwork



In relation to Figure 3, the results are distributed between a low level (47.5%) and a moderate level (48.7%), indicating that a considerable number of students have begun to develop collaborative skills, although they have not yet achieved a high level of mastery. This scenario presents an opportunity to strengthen this dimension through systematic and continuous teamwork experiences.

Figure 4
Level of respect and effective communication



In Figure 4, regarding the level of respect and effective communication, it is observed that 35.8% of students are at a moderate level within this dimension, reflecting some progress. However, it also shows that the majority still do not reach optimal levels in these competencies. Therefore, it is crucial to focus efforts on strengthening social skills and fostering empathy development.

Figure 5
Level of conflict resolution

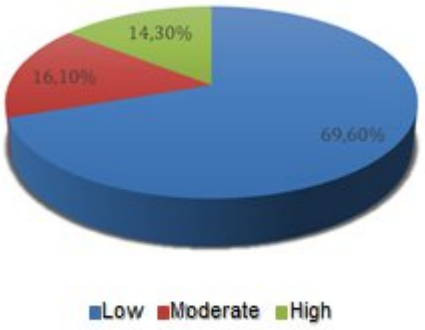
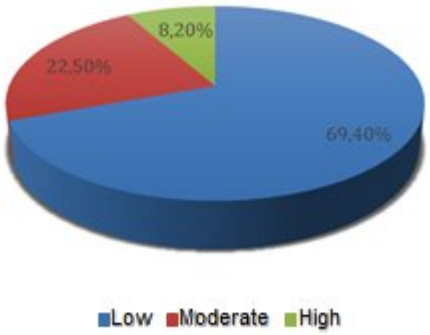


Figure 5 reveals that 69.6% of students demonstrate a low level in their ability to resolve conflicts. This finding is particularly concerning, as it directly affects coexistence and the proper management of problematic situations within the group. Therefore, it is urgent to incorporate activities that promote mediation, dialogue, and shared decision-making.

Figure 6
Level of empathy and understanding



Finally, Figure 6 indicates that 69.4% of students are at a low level in the dimension of empathy and understanding. This data reflects a significant weakness in the ability to empathize and understand different perspectives, which may limit cohesion and solidarity within the school environment.

Overall, the results indicate that the majority of primary students evaluated exhibit low levels in several key dimensions of cooperative games, particularly in active participation, conflict resolution, and empathy. While there are signs of progress in collaboration and respect, the small percentage of students achieving high levels across all dimensions underscores the urgency of implementing intentional and sustained pedagogical strategies. These strategies should promote cooperation, effective communication, and the development of socio-emotional skills in the physical education classroom, thereby contributing to the creation of a more inclusive, respectful, and cohesive school environment.

Discussion

Educational practice involves the interaction of multiple factors that directly impact student learning and behavior. Within this framework, cooperative games emerge as a particularly relevant methodological tool for the area of physical education, thanks to their playful, inclusive, and formative characteristics.

In this regard, Freire Ochoa et al. (2025) argue that the appropriate incorporation of cooperative games into educational practice not only contributes to the teaching of motor skills but also strengthens the development of fundamental values for the holistic formation of students. The conscious and systematic implementation of these dynamics promotes integration between teachers and students, fosters a more collaborative organizational management, and enhances the construction of an educational space characterized by a positive environment and social interaction. Embracing the challenge of incorporating such resources entails not just modifying activities but transforming the pedagogical approach to one that is more human, participatory, and inclusive.

The results presented in this study reveal weaknesses in attitudinal dimensions such as active participation, collaboration and teamwork, respect and effective communication, conflict resolution, as well as empathy and understanding. These deficiencies can pose challenges for managing assertive relationships within the classroom. Such findings align with previous research highlighting the importance of play as a foundational element of human learning throughout history. According to Guerrero Arechaga (2024), play has historically been a fundamental tool for both the teaching-learning process and for motivating exploration and inquiry. Therefore, the author recommends designing cooperative games centered on specific objectives, with a sequence that logically progresses from individual to group action, thereby fostering greater cohesion and pedagogical effectiveness.

Upon reviewing the data obtained in this research regarding interaction and problem-solving within the group, it is important to note that 69.4% of the analyzed students exhibited a low level of empathy and understanding, which correlates with a similarly deficient level of conflict resolution, nearly 69.6%. Considering these dimensions as guiding principles for understanding adaptation processes, coexistence, and prosocial behavior, it is essential to implement strategies that enable individuals to comprehend both their own context and that of others, allowing them to internalize others' emotions and model prosocial behaviors during social interactions.

In line with these findings, various studies agree that cooperative games represent a valuable pedagogical strategy within the realm of physical education, as they not only encourage active participation among students but also foster the development of social and emotional skills. Consequently, these dynamics should focus on constructing collaborative experiences where healthy competition, mutual respect, and appreciation of individual differences prevail. This means not only participating in a motor activity but also creating spaces where students can share learning, exchange viewpoints, and develop a critical and constructive awareness of their physical performance (Ruíz Omeñaca & Omeñaca Cilla, 2019).

Furthermore, Garaigordobil Landazabal (2003) emphasizes that the value of these practices lies in their capacity to promote meaningful learning through playful experiences, generating positive interactions among students grounded in respect and cooperation.

However, Giraldo (2017) warns that while cooperative play can strengthen the sense of group support, it may also lead to negative experiences if students tend to compare themselves with one another, especially when they perceive limitations in their physical abilities. Such comparisons can result in insecurity and demotivation, prompting the author to propose designing activities that recognize and value bodily diversity, ensuring that all participants feel included and valued based on their capabilities rather than homogeneous standards.

Additionally, Reyes Rodríguez & Marcano Molano (2023) explore the influence of variables such as age, team composition, and task type on individual and collective performance during cooperative games, particularly observing effects in activities like swimming. Their study demonstrates that methodological strategies such as global learning and shared engagement among all participants contribute to enhancing performance, active involvement, and coordination within the group. They also found that, in school-aged children, performance can be influenced by the type of grouping (e.g., same-age peers vs. mixed-age groups) and the structure of assigned tasks. Therefore, it is relevant to analyze the results of this research considering age group segmentation to assess the reliability of the findings.

According to Salinas-Tapia & Torres-Palchisaca (2023), cooperative games significantly impact physical self-concept, valuing aspects such as body image, motor skills, and physical condition, thereby promoting self-acceptance. These authors identify two key levels that can influence the implementation of these games. The first level refers to the internal structure of the game, ranging from a basic configuration (aligned with traditional approaches) to more complex forms integrated into a pedagogical plan that considers more dynamic criteria for development, organization, and evaluation. The second level relates to the application environment, particularly the social dimension of the school context, where cooperative games acquire a transformative character by influencing coexistence, empathy, and collaboration among students.

In the context at hand, collective play as a strategy offers students the opportunity to improve their body image and self-perception, regardless of factors such as age or gender, provided that well-designed activities are implemented. The appropriate selection of dynamics, considering the physical and emotional context of the group, is crucial to avoid experiences of frustration or exclusion, which can affect levels of respect and communication, as evidenced by 58.4% of the analyzed subjects. Therefore, there is a need to deepen research that examines the impact of these strategies on various school groups, including students with specific conditions such as overweight, obesity, or malnutrition, to ensure truly inclusive and transformative physical education.

Furthermore, research by Miranda & Vásquez (2020) demonstrates that the application of cooperative games yields favorable results in variables such as self-esteem, perception of physical condition, and strength.

However, they agree with Yugsi Pimbo et al. (2023) in noting a gender gap in outcomes, with males achieving higher scores than their female counterparts; thus, another aspect to consider in future research will be the analysis of results with attention to the gender of the study subjects.

Similarly, Moro Calderón (2021) describes cooperative games in physical education as a pedagogical intervention proposal aimed at developing students' active participation in teamwork, fostering respect for peers. In a similar vein, Molina Díaz (2016) recognizes that cooperative games have gained increasing relevance as an educational resource, promoting not only physical activity but also teamwork, positively impacting adolescents' body self-concept. This approach entails viewing play as a means to strengthen students' physical and emotional identity, facilitating group integration and a sense of belonging.

Along these lines, Flórez Mateus (2022) emphasizes the importance of the internal process of play in physical education classes, highlighting the need to consider elements such as spatial and temporal organization, sensorimotor parameters, and interaction structures such as duality, multiduality, and team connections. These components create a practical movement environment in which students can experience various forms of cooperation and task-solving in real contexts.

Conclusion

The results of the study reveal that a significant proportion of primary students exhibit low levels in essential dimensions of cooperative games, such as active participation, conflict resolution, empathy, and overall cooperation. This situation highlights important limitations in the social skills necessary for effective interaction, respectful communication, and collaboration in group dynamics. These deficiencies not only hinder students' personal development but also negatively impact the school climate, affecting collective learning and coexistence within the physical education classroom.

Although moderate progress is identified in aspects such as collaboration and respect, the low percentage of students achieving high levels in these areas underscores a significant gap that requires urgent attention. These findings emphasize the need to implement intentional pedagogical strategies that foster cooperation, teamwork, and the development of socio-emotional competencies. Moreover, it is essential that these strategies be integrated transversally into the school curriculum, strengthening a culture based on inclusion, dialogue, and shared responsibility among students.

In summary, promoting cooperative games in a planned manner not only enriches the educational experience but also contributes to the holistic development of children, preparing them to navigate increasingly diverse and complex social contexts successfully.

References

Almeida, J. G. (2025). Juventud y proyectos de vida: grupos operativos para el aprendizaje colectivo en Chiapas.*RIDE Revista Iberoamericana para la Investigación y el Desarrollo Educativo, 15*(30).https://doi.org/10.23913/ride.v15i30.2347

Baquero Trujillo, R., & Castro Williams, R. E. (2022). Los juegos cooperativos como medio de inclusión en la educación física en los estudiantes de educación básica superior.*Polo del Conocimiento, 7*(10), 1842-1872.https://www.polodelconocimiento.com/ojs/index.php/es/article/view/4818

Chávez, E. W., & Barahona, C. F. (2024). Influencia de las redes sociales en el proceso educativo de los estudiantes del tercer año de Bachillerato de Informática de la Unidad Educativa Pichincha (Ecuador).*Revista Espacios, 45*(1), 43-50.https://ve.scielo.org/scielo.php?pid=S0798-10152024000100043&script=sci_arttext

Echeverría-Caranqui, J. P., León-Jácome, G. O., & Puga-Burgasi, G. L. (2021). Análisis metodológico del proceso enseñanza-aprendizaje de la gimnasia rítmica para docentes de educación física.*Polo del Conocimiento: Revista científico-profesional, 6*(8), 1012-1027.https://dialnet.unirioja.es/servlet/articulo?codigo=8094475

Flórez Mateus, B. F. (2022).*Aprendamos de Chiribiquete, su biodiversidad representativa y el patrimonio cultural a través del juego como estrategia de enseñanza con estudiantes de educación básica del IPN*[Tesis de Grado, Universidad Pedagógica Nacional de Colombia].http://hdl.handle.net/20.500.12209/17440

Freire Ochoa, D. E., Castillo Gallardo, R. A., & Rojas Valdés, G. R. (2025). Juegos cooperativos para la inclusión de los estudiantes con síndrome de Down en la clase de educación física.*PODIUM - Revista de Ciencia y Tecnología en la Cultura Física, 20*(1), e1657.https://podium.upr.edu.cu/index.php/podium/article/view/1657

Garaigordobil Landazabal, M. (2003).*Juegos cooperativos y creativos para grupos de niños de 8 a 10 años*. Editorial Pirámide.

García-Pérez, A., Ramírez-Arrabal, V., Rojas-Cepero, I., & Caracuel-Cáliz, R. F. (2024). El alumnado de educación primaria promotor de salud a través de la investigación en el área de educación física.*Retos: Nuevas tendencias en educación física, deporte y recreación*, (55), 327-338.https://dialnet.unirioja.es/servlet/articulo?codigo=9426000

Giraldo, J. (2017).*Juegos cooperativos. Jugar para que todos ganen*. Editorial Océano Ámbar.

Guerrero Arechaga, L. P. (2024).*Juegos de reaseguración profunda en el nivel inicial 2022*[Tesis de Bachiller en Educación, Escuela de Educación Superior Pedagógico Pública Piura].http://repositorio.eespppiura.edu.pe/handle/EESPPPIURA/43

Lavanchy, D. (2023). Después de Piaget. Teorías de aprendizaje y educación de adultos. Pensamiento post formal y cambio conceptual.*Revista Nuestro NOA*, (16).http://revista.fhycs.unju.edu.ar/revistanuestronoa/index.php/NuestroNOA/article/view/105

Mendoza-Zambrano, M. G., Meza-Montes, J. K., & Vélez-Falcones, A. C. (2023). Análisis de la teoría de juegos aplicada como estrategias en el turismo.*MQRInvestigar,* *7*(3), 4563-4582.https://www.investigarmqr.com/ojs/index.php/mqr/article/view/694

Miranda, D., & Vásquez, S. (2020).*Relación entre disfrute de la actividad física y el autoconcepto físico de los escolares*[Tesis de Pregrado, Universidad Andrés Bello, Chile]. https://repositorio.unab.cl/server/api/core/bitstreams/357adbd0-b279-47b8-9759-de4ffc43524a/content

Molina Díaz, R. (2016). Los juegos cooperativos y su incidencia en los estados de ánimo y las emociones en escolares de 10-12 años.*EmásF: Revista Digital de Educación Física*, (41), 108-132.https://dialnet.unirioja.es/servlet/articulo?codigo=5558017

Moro Calderón, R. (2021).*Los juegos cooperativos en educación física: propuesta de intervención*[Tesis de Grado en Educación Primaria, Universidad de Valladolid].

Reyes Rodríguez, J. A., & Marcano Molano, P. G. (2023). Actividades lúdicas y rendimiento académico en los estudiantes con discalculia. *Latam: Revista Latinoamericana de Ciencias Sociales y Humanidades, 4*(6), 76.https://dialnet.unirioja.es/servlet/articulo?codigo=9586626

Ruíz Omeñaca, J., & Omeñaca Cilla, R. (2019).*Juegos cooperativos y educación física*(3.ª ed.). Editorial Paidotribo.

Salinas-Tapia, L. G., & Torres-Palchisaca, Z. G. (2023). Los juegos cooperativos en educación física y su incidencia sobre el autoconcepto físico en adolescentes.*Polo del Conocimiento,* *8*(12), 133-151.https://polodelconocimiento.com/ojs/index.php/es/article/view/6269

Vásquez Calderón, H. R., Rivadeneira Acosta, J. H., Pupiales Alvarado, H. A., Villamil Arias, V. M., & Veliz Vera, A. V. (2025). El juego cooperativo como estrategia didáctica en el aprendizaje de la suma y resta.*Revista Multidisciplinar de Estudios Generales, 4*(2).https://doi.org/10.70577/reg.v4i2.94

Villarreal Ángeles, M. A., Roa, Z. Y., Jiménez Cortes, M. L., & Valero González, J. C. (2024). Impacto de los juegos cooperativos mediados por un blog para fortalecer la motricidad e interacción social en estudiantes de 3° a 5° modelo multigrado.*Ciencia Latina: Revista Multidisciplinar,* *8*(4), 1374-1393.https://dialnet.unirioja.es/servlet/articulo?codigo=9784580

Yugsi Pimbo, E. G., Jarrin Navas, S. A., & Astudillo Astudillo, X. A. (2023). Los juegos cooperativos y su influencia en el autoconcepto físico en estudiantes de básica superior.*Pacha. Revista de Estudios Contemporáneos del Sur Global, 4*(10), e230181.https://doi.org/10.46652/pacha.v4i10.181