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Learning and assessment of artistic gymnastics in physical education classes: a perspective based on students' experiences

Aprendizaje y evaluación de la gimnasia artística en la clase de Educación Física: una perspectiva basada en las experiencias del estudiantado de pedagogía.

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Abstract

The national Physical Education curriculum establishes the possibility of incorporating various individual sports into its objectives, with artistic gymnastics being one of them. The purpose of this research is to characterize the teaching and assessment of artistic gymnastics in schools based on the experiences of first-year students in the Physical Education Pedagogy program. A mixed-methods approach was used with a non-probabilistic sample. From a quantitative perspective, a cross-sectional descriptive design was employed, applying a questionnaire validated by content and expert judgment, which included both open-ended and closed-ended questions. For the qualitative approach, a phenomenological and interpretive perspective was adopted, with open-ended responses subjected to coding to identify hermeneutic units. The sample consisted of 93 first-year Physical Education Pedagogy students, of which 79 were men (84.95%) and 14 were women (15.05%), with an average age of 19.26 ± 1.28 years. The results indicate a high frequency of floor exercises in basic education, particularly between grades 5 and 8, with a variety of emotions ranging from satisfaction with achievements to fear and anxiety during evaluation. It was concluded that the way gymnastics is taught and assessed directly influences students' emotions toward the discipline. It is essential to prioritize progressive methodologies that respect classroom diversity to avoid feelings of frustration, fear, and anxiety.

Keywords: Artistic gymnastics, technical approach, students, physical education, fear.

Resumen

El currículo nacional de Educación Física establece la posibilidad de incorporar diversos deportes individuales en sus objetivos, siendo la gimnasia artística uno de ellos. El propósito de la investigación es caracterizar la enseñanza y evaluación de la gimnasia artística en el ámbito escolar, a partir de las experiencias de estudiantes de primer año de la carrera de Pedagogía en Educación Física. Se utilizó un enfoque metodológico mixto con una muestra no probabilística. Desde una perspectiva cuantitativa, se empleó un diseño descriptivo de corte transversal, aplicando un cuestionario validado por contenido y juicio de expertos, con preguntas tanto abiertas como cerradas. En cuanto al enfoque cualitativo, se adoptó un enfoque fenomenológico e interpretativo, sometiendo las respuestas abiertas a codificación para identificar unidades hermenéuticas. La muestra estuvo compuesta por 93 estudiantes de primer año de la carrera de Pedagogía en Educación Física, de los cuales 79 eran hombres (84.95%) y 14 mujeres (15.05%), con una edad promedio de 19.26 ± 1.28 años. Los resultados muestran una alta frecuencia de ejercicios de suelo en la educación básica, especialmente entre 5º y 8º básico, con una variedad de emociones que van desde la satisfacción por los logros hasta el miedo y la ansiedad durante la evaluación. Se concluyó que la manera en que se enseña y evalúa influye directamente en las emociones de los estudiantes hacia la disciplina, es fundamental priorizar metodologías progresivas que respeten la diversidad del aula, con el fin de evitar sentimientos de frustración, miedo y ansiedad.

Palabras clave: Gimnasia artística, enfoque técnico, alumnado, educación física, miedo.

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Introduction

Artistic gymnastics has its roots in ancient Greece, where it was an integral part of military training and athletic competitions (Garrido, 2022; Torrebaddella Flix, 2019). However, the formalization of gymnastics as a sport began in the 19th century in Europe, primarily in Germany, with the establishment of the first gymnastics clubs by Friedrich Ludwig Jahn, known as the "Father of Gymnastics" (Friedrich, 2021). Jahn developed a series of exercises and apparatuses, such as the parallel bars, horizontal bar, and pommel horse, which would become fundamental to modern gymnastics.

Jahn's influence and German gymnastics quickly spread across Europe and later worldwide, becoming an educational tool in school systems (McVeigh & Waring, 2023). In Chile, the influence of German gymnastics was particularly significant in the development of Physical Education. During the 19th and early 20th centuries, Chilean education underwent a series of reforms that included the incorporation of gymnastics into the school curriculum, following the German model (Freundt & Matus, 2024).

The impact of German gymnastics on Chilean Physical Education was profound, as Jahn's disciplined and structured approach was adopted in Chilean schools, becoming a cornerstone of physical training (Franken, 2022). This influence persists today, with artistic gymnastics remaining an important component of Physical Education in Chile, although it has evolved over time to include a greater diversity of activities and a more inclusive approach to students' holistic development (Freundt & Matus, 2024).

The Chilean national curriculum, through the Ministry of Education (MINEDUC), establishes the Learning Objectives (LOs) for the subject of Physical Education and Health (PEH), addressing individual sports in a broad and general manner (MINEDUC, 2012). Among these sports are athletics, artistic gymnastics, and swimming. This generalized approach allows teachers the freedom to guide the development of LOs through the sports activities they deem most appropriate (Rodríguez Fernández et al., 2016). This curricular flexibility is essential, as it allows teaching to be adapted to students' specific needs and contexts, fostering more meaningful and contextualized learning (Martos & García, 2023; Mujica, 2022).

In the context of initial teacher education, the training of future Physical Education teachers covers a wide range of sports disciplines (Gómez et al., 2018; Souza

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de Carvalho et al., 2020), addressing the need to provide Physical Education that not only focuses on the technical aspects of sports but also encompasses their formative and educational dimensions. This perspective is based on the idea that pre-sport games and sports practices serve as fundamental tools for the holistic development of students (Retamal et al., 2020).

From a critical perspective, it is relevant to reflect on how future educators are trained to recognize the potential of sports activities as pedagogical tools that go beyond physical training (Merellano et al., 2019). In this regard, teacher education should extend beyond the transmission of technical and tactical skills to include a deep understanding of the psychopedagogical benefits of physical activity. The integrative perspective of sports disciplines enables students to develop abilities that prepare them not only to be competent in their field of specialization but also to face the emotional, social, and cognitive challenges of life in society (Retamal et al., 2020).

In this context, sports practices become scenarios where students can learn to manage pressure, cope with frustration after defeat, establish collaborative relationships, and acquire tools for making strategic and quick decisions in changing situations (Danthony et al., 2020; Suárez, 2023). Thus, the role of the Physical Education teacher is not limited to the transmission of technical knowledge but extends to the creation of formative spaces that foster students' emotional and social maturity—fundamental elements for their development as individuals capable of contributing to a diverse and constantly evolving society (Jiménez-Galan et al., 2020).

This comprehensive approach has important implications for initial teacher education, as it requires critical reflection on the role that future teachers must assume in the educational field. The preparation of future educators should include reflection on how sports activities can be designed and adapted to meet the diverse needs of students, promoting an inclusive and participatory environment that supports the development of all human dimensions, not just the physical (Mujica, 2022).

Artistic gymnastics, in particular, is a discipline that offers multiple benefits in educational contexts (Vicente-Pedraz & Brozas-Polo, 2017). From a physical perspective, this practice enhances strength, flexibility, coordination, and balance—fundamental abilities for well-rounded motor development (Echevarría et al., 2022).

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Additionally, recent research has used artistic gymnastics to address issues related to obesity and the inclusion of adolescents in Physical Education classes, achieving significant reductions in body fat, waist circumference, and skinfold thickness, as well as improvements in strength and dexterity during exercises (Barrera-Melendres et al., 2024; Abilleira et al., 2017). Furthermore, artistic gymnastics has been shown to foster important psychological skills such as concentration, perseverance, and self-discipline—essential qualities for personal and academic development (Sierra Palmeiro et al., 2023). Emotionally, this discipline contributes to the development of self-esteem and self-confidence by encouraging students to face and overcome progressive challenges (Barrera-Melendres et al., 2024). In terms of values, artistic gymnastics promotes respect, responsibility, and cooperation—principles that extend beyond sports and are reflected in everyday life (Delgado et al., 2024).

Considering the importance of the discipline and the autonomy of teachers in its implementation, this study aims to characterize the teaching and assessment of artistic gymnastics in the school context, based on the lived experiences of first-year students in the Physical Education Pedagogy program in Chile. Analyzing the experiences and perceptions of future teachers in this discipline is essential, as it may influence their professional performance in the future.

Methodology

This research follows a mixed-methods approach, combining quantitative and qualitative elements to achieve a comprehensive understanding of the phenomenon under study (Hernández et al., 2016). In the quantitative component, a cross-sectional descriptive design was adopted to analyze the frequencies and percentages of the responses obtained through the questionnaire administered to students (Escofet et al., 2016). Regarding the qualitative component, an interpretive perspective was used, focusing on narratives (Blanco, 2011) of participants' school experiences, which allowed for an in-depth exploration of their experiences and perceptions related to the teaching and assessment of artistic gymnastics. This mixed approach enriches the study's findings by providing both a general quantitative overview and a detailed, contextualized understanding of individual experiences.

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Participants

This study was conducted with a total of 93 participants, of whom 79 were men (84.95%) and 14 were women (15.05%). The participants belonged to two cohorts of first-year students in the Physical Education Pedagogy program at a university in the Maule region, Chile. The average age of the participants was 19.26 years (SD = 1.28 years), having completed their schooling between 2021 and 2023, which indicates that their twelve years of education spanned approximately from 2010 to 2022. The participants came from a wide variety of educational institutions, with more than 100 different schools reported across primary and secondary education. To be included in the study, participants had to be first-year students in the Physical Education Pedagogy program and have regularly attended Physical Education classes during their school years.

Procedure

A specific questionnaire was designed for this study, developed by the research team and validated through expert judgment (Escobar-Pérez & Cuervo-Martínez, 2008). The questionnaire consists of a series of closed-ended questions for quantitative analysis and open-ended questions that allow for a deeper qualitative analysis. The expert judgment validation ensured the clarity, relevance, and appropriateness of the questions, guaranteeing that they effectively addressed the study's specific objectives. Therefore, students who had been exempt from Physical Education classes or were not first-year students in the aforementioned program could not have participated.

The questionnaire was administered to the 93 students in a controlled environment, ensuring the privacy and confidentiality of their responses. Clear instructions were provided before administration, and sufficient time was allowed for completion, thereby ensuring the quality of the collected data. Additionally, participants were asked to write narrative accounts of their experiences with the teaching and assessment of artistic gymnastics in Physical Education and Health (PEH) classes during their school years. A trusting environment was created to encourage them to express themselves openly.

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Data Analysis

The analysis of the collected data was divided into two phases: one quantitative and the other qualitative. In the first phase, descriptive statistics were applied to evaluate the responses to the closed-ended questions in the questionnaire. Subsequently, frequencies and percentages were calculated for each response, allowing for the identification of general patterns and trends within the study group. In this phase, data analysis was conducted using Excel (Microsoft 365, version 2409), which facilitated efficient data manipulation and visualization.

On the other hand, qualitative analysis was conducted through content analysis. The narrative accounts were organized and subjected to an open coding process, which involved identifying relevant hermeneutic units. These units were then coded, allowing for the development of categories and subcategories. This approach facilitated a deeper understanding of students' perceptions and experiences, as well as the identification of emerging themes that reflect the realities and challenges of the teaching and assessment process of artistic gymnastics in the school context. Content analyses were conducted using the Atlas.ti software (version 24).

Ethical Considerations

The methodological ethical criteria used for data collection were acknowledged by the participants, ensuring active listening, reflection, and an empathetic relationship that allowed for the confirmation of results and the review of specific data (Guba & Lincoln, 1981). Additionally, this research adhered to the guidelines of the Declaration of Helsinki for studies involving human participants (Asociación Médica Mundial, 2013). Throughout the research process, ethical standards for studies involving human subjects were strictly followed. All participants provided their consent before taking part in the study, and the confidentiality and anonymity of their responses were ensured. Participants were also informed that the results would be used exclusively for academic and educational improvement purposes.

Results

Table 1 presents the results regarding participants' experiences with different gymnastics skills based on their school cycle and lived experience. The table displays the percentage frequency of responses for the options: "I never experienced it," "1st to

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4th grade," "5th to 8th grade," "9th to 10th grade," "11th to 12th grade," and "Outside of PE class."

Regarding experiences with the mentioned skills (see Table 1), in the "I never experienced it in PE" category, responses indicate that the highest percentages are found in the back handspring and rings exercise (82.8%), while the lowest percentage is observed in the forward roll. For experiences in 1st to 4th grade, the highest percentage is in the forward roll (34.4%), whereas the lowest percentage of experience is reported in the rings and bar exercises (2.2%).

Regarding 5th to 8th grade, the most commonly experienced skills were trampoline jump (35.5%), cartwheel (29.0%), and forward roll (25.8%). However, the least frequent experiences were in the rings exercise (4.3%), back handspring, and front and back somersaults. Regarding 9th to 10th grade, the highest frequency of experiences was reported in bar exercises (16.1%) and trampoline jumps (15.1%), while the lowest frequency was observed in back handspring and rings exercises (1.1%). On the other hand, in 11th to 12th grade, the most commonly reported experiences were trampoline jumps (10.8%) and cartwheel (8.6%), whereas the least frequently experienced skills were back handspring (1.1%), roundoff, and rings exercise (2.2%).

Regarding experiences outside of PE class, the most frequently reported skills were bar exercises (16.1%) and gymnastics routines or series (12.9%). Conversely, the least frequently experienced skills were vault with springboard and back handspring (4.3%).

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Table 1. Summary of Response Frequency Percentages for Experiences with the Mentioned Gymnastics Skills by School Level

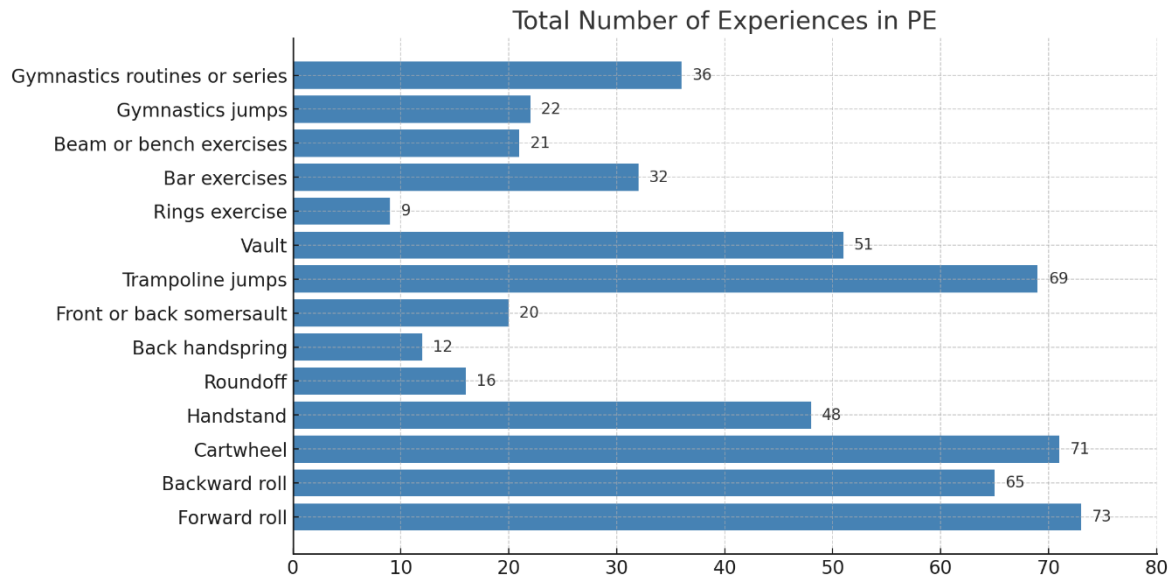
Skill or Activity	Never experienced in PE f(%)	1st to 4th grade f(%)	5th to 8th grade f(%)	9th to 10th grade f(%)	11th to 12th grade f(%)	Outside of PE class f(%)
Forward roll	22 (23.7)	32 (34.4)	24 (25.8)	10 (10.8)	7 (7.5)	4 (4.3)
Backward roll	37 (39.8)	27 (29.0)	19 (20.4)	13 (14.0)	6 (6.5)	9 (9.7)
Cartwheel	36 (38.7)	27 (29.0)	27 (29.0)	9 (9.7)	8 (8.6)	8 (8.6)
Handstand	51 (54.8)	10 (10.8)	22 (23.7)	9 (9.7)	7 (7.5)	7 (7.5)
Roundoff	75 (80.6)	4 (4.3)	8 (8.6)	2 (2.2)	2 (2.2)	5 (5.4)
Back handspring	77 (82.8)	4 (4.3)	6 (6.5)	1 (1.1)	1 (1.1)	4 (4.3)
Front or back somersault	74 (79.6)	5 (5.4)	7 (7.5)	3 (3.2)	5 (5.4)	6 (6.5)
Trampoline jump	44 (47.3)	12 (12.9)	33 (35.5)	14 (15.1)	10 (10.8)	7 (7.5)
Vault with springboard	54 (58.1)	9 (9.7)	21 (22.6)	12 (12.9)	9 (9.7)	4 (4.3)
Rings exercise	77 (82.8)	2 (2.2)	4 (4.3)	1 (1.1)	2 (2.2)	9 (9.7)
Bar exercises	55 (59.1)	2 (2.2)	8 (8.6)	15 (16.1)	7 (7.5)	15 (16.1)
Beam or bench exercises	74 (79.6)	3 (3.2)	12 (12.9)	3 (3.2)	3 (3.2)	8 (8.6)
Gymnastics jumps	71 (76.3)	4 (4.3)	9 (9.7)	5 (5.4)	4 (4.3)	7 (7.5)
Gymnastics routines or series	60 (64.5)	8 (8.6)	11 (11.8)	11 (11.8)	6 (6.5)	12 (12.9)
Total experiences		149	211	108	77	

Source: Own elaboration. f = Frequency; (%) = Percentage

The total number of experiences reported by students across different gymnastics skills during their school-based Physical Education classes is presented (see Figure 1). Among the most common experiences, "Forward roll" stands out with 73 mentions, followed by "Backward roll" with 65 mentions, "Cartwheel" with 71 mentions, and "Handstand" with 48 mentions, representing the most frequently taught and practiced activities in PE classes. On the other hand, according to the responses, the least common skills include "Rings exercise" with only 9 mentions and "Back handspring" with 12 references, suggesting that these exercises are less frequently covered in students' gymnastics training. Likewise, "Roundoff" and "Front or back somersault" also appear with a lower frequency of experiences, with 16 and 20 mentions, respectively.

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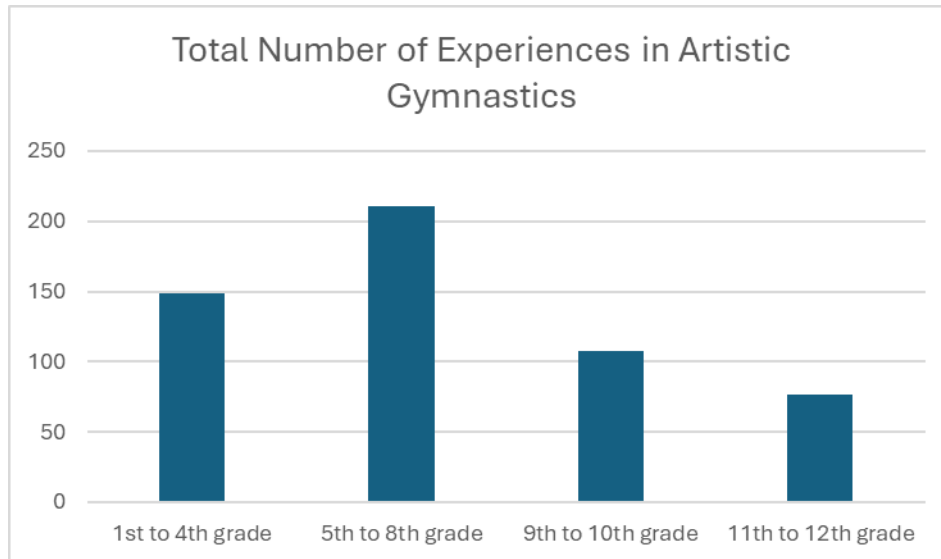
Figure 1. Total Number of Experiences Reported by Students Across Different Gymnastics Skills



Regarding the number of experiences in artistic gymnastics (see Figure 2), it is observed that the 11th and 12th grade period had the lowest number of experiences in artistic gymnastics (77) within the Physical Education and Health (PEH) subject. On the other hand, the 5th to 8th grade period recorded the highest number of experiences (211), indicating greater attention or focus on this discipline during those school years. In comparison, the 1st to 4th grade period and the 9th to 10th grade period show intermediate numbers of experiences, suggesting a progressive decline in the focus on artistic gymnastics as students advance in their schooling.

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Figure 2. Frequency by School Level Considering All Consulted Skills and Exercises



Dimension: Teaching of Artistic Gymnastics in Physical Education Classes

According to the dimension on the teaching of artistic gymnastics in PEH classes (see Table 2), the data indicate that a significant portion of students did not experience formal or adequate instruction in this discipline. The "Gymnastics Experience in PEH" category shows that many students reported either no experience (11) or a limited experience (8) in artistic gymnastics instruction. In cases where gymnastics was taught, it was primarily limited to specific activities such as rolls and cartwheels (15). The emotional reactions associated with the teaching of artistic gymnastics were diverse, with some students expressing positive emotions, such as fun (5) and motivation (6), while others reported negative emotions, including fear (10) and frustration (8). Overall perceptions of gymnastics varied, with some students demonstrating appreciation of gymnastics (7) and experiencing a sense of achievement (4), while others expressed feelings of embarrassment (9) and lack of interest (6).

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Table 2. Category Matrix: Teaching of Artistic Gymnastics in Physical Education Classes

Category	Subcategory	Codes	Description
Gymnastics Experience in PE	Not Addressed in Any Grade	No Gymnastics Experience (11), Limited Instruction (8)	Students report a lack of instruction or only limited teaching of artistic gymnastics in their PE classes.
	Specific Practices Conducted	Specific Activities (rolls, cartwheel) (15)	Only certain specific skills, such as rolls and cartwheels, were commonly taught.
Emotional Reactions	Positive Emotions	Fun (5), Motivation (6)	Students who participated in artistic gymnastics activities often experienced positive emotions.
	Negative Emotions	Fear (10), Frustration (8)	However, a significant number also reported negative emotions, such as fear and frustration when performing exercises.
Perception of Gymnastics	Positive Perception	Appreciation of Gymnastics (7), Sense of Achievement (4)	Some students value artistic gymnastics and feel that it helps them develop important skills.
	Negative Perception	Embarrassment (9), Lack of Interest (6)	Other students do not consider it relevant or experience embarrassment when participating.

() Frequency of occurrence in narrative accounts

Dimension: Assessment of Artistic Gymnastics in Physical Education Classes

Regarding the assessment of artistic gymnastics in PE classes (see Table 3), a considerable number of students reported not being formally assessed (15) or not remembering being assessed (12) in this discipline. However, a significant proportion of students (38) indicated that they had been assessed at some point. The emotions associated with these assessments varied, with some students experiencing a sense of achievement (8) and satisfaction (5), while others experienced fear of failure (10) and anxiety (7). Regarding assessment methods, the assessment of basic exercises, such as rolls (16) and handstands (10), was a common practice. However, assessments of circuits (8) and routines (5) were also conducted, though they were less frequent.

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Table 3. Category Matrix: Assessment of Artistic Gymnastics

Categoría	Subcategoría	Códigos	Descripción
Assessment of Artistic Gymnastics	Not Assessed	Never Assessed (15), Do Not Remember (12)	Many students indicated that they were never formally assessed in artistic gymnastics or do not remember being assessed.
	Assessed at Some Point	Assessed at Some Point (38)	A significant number of students were assessed at some point during their schooling in artistic gymnastics exercises.
Emotional Reactions	Positive Emotions	Sense of Achievement (8), Satisfaction (5)	Some students experienced positive emotions such as a sense of achievement and satisfaction when performing gymnastics exercises.
	Negative Emotions	Fear of Failure (10), Anxiety (7)	Other students reported negative emotions such as fear of failure and anxiety during assessments.
Assessment Methods	Basic Exercise Assessment	Assessment of Rolls (16), Handstands (10)	The assessment of basic exercises, such as rolls and handstands, was a common practice.
	Circuit Assessment	Assessment of Circuits (8), Assessment of Routines (5)	In some cases, assessments also included circuits and routines, though less frequently.

Semantic Network on Grading in Artistic Gymnastics in Physical Education Classes

The following section groups the codes related to grading in artistic gymnastics, including perception of grading, gymnastics circuit assessment, and gymnastics exercise assessment.

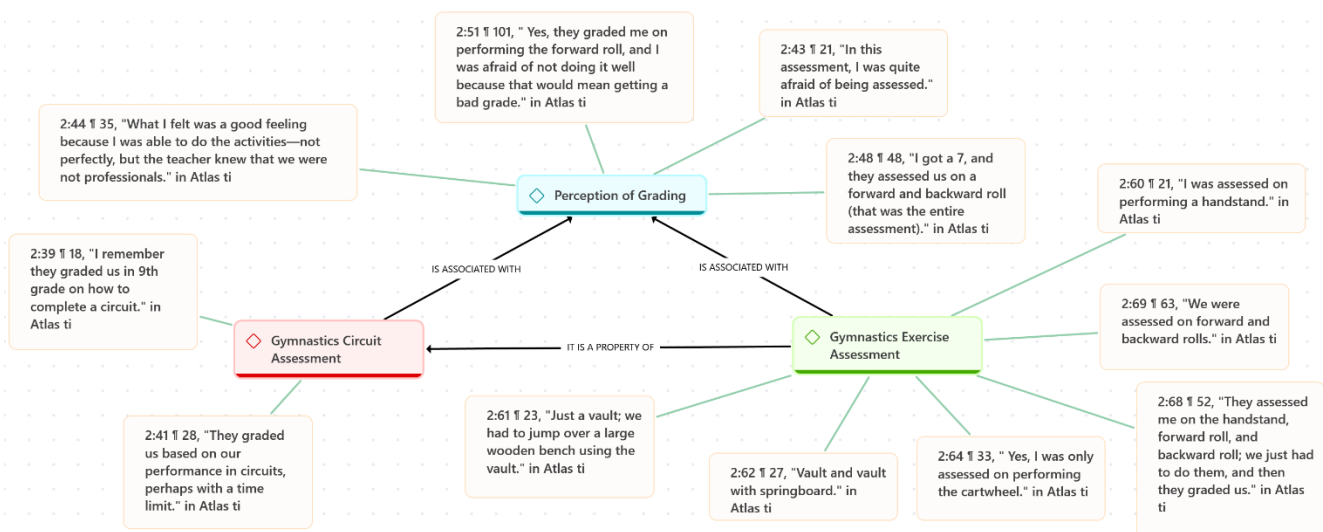
Regarding the semantic network on grading in artistic gymnastics in Physical Education classes, responses related to participants' perception of grading, the characteristics of gymnastics circuit assessments, and the main gymnastics exercises assessed can be observed. In terms of coding, the perception of grading is associated with the codes for gymnastics circuits and gymnastics exercises, with the gymnastics circuit being a property of the assessment of gymnastics exercises.

With regard to the perception of grading, students reflect on their lived experiences in class, particularly in cases where they received the highest possible grade. *(In the Chilean education system, the minimum grade is 1.0, and the maximum*

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grade is 7.0.) Additionally, students' perceptions are directly related to their confidence in performing gymnastics skills. Regarding gymnastics circuit assessment, participants generally mention the gymnastics circuit and the time limit for its execution. In relation to gymnastics exercise assessment, students share their experiences with the forward roll, backward roll, handstand, cartwheel, vault, and vault with springboard.

Figure 3. Semantic Network on Grading in Artistic Gymnastics in Physical Education Classes



Discussion

The objective of this study is to characterize the teaching and assessment of artistic gymnastics in the school setting, based on the experiences of first-year students in the Physical Education Pedagogy program. The results show a tendency to favor lower-difficulty exercises over more complex ones, aligning with the International Gymnastics Federation's (FIG) "Age Group" program (Maceiras et al., 2023), which seeks to respect age-related developmental levels based on the individual characteristics of each participant. Mastering pre-requisite skills is another key recommendation made by the International Gymnastics Federation (Federación Internacional de Gimnasia, 2021), emphasizing the importance of acquiring foundational movements before progressing to more advanced exercises. This process aligns with the didactic principle

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of progressivity, a core aspect of Physical Education, which aims to gradually increase the difficulty of motor tasks (Hernández, 2022).

Moreover, self-perception of effectiveness in teaching artistic gymnastics is influenced by years of teaching experience, which suggests the need to strengthen technical and practical knowledge during the university training of future Physical Education teachers so that they can correctly address the content of artistic gymnastics (Cenizo et al., 2017). In this regard, inadequate training in this area not only limits the teaching of these skills but may also lead to their eventual disappearance from schools, which would represent a loss in terms of sports skills and the development of students' personal and social values (Moro et al., 2022; Tapiador, 2001).

It is also essential that the teaching and learning process of artistic gymnastics go beyond the mere reproduction or imitation of movements, a common practice in educational settings (Mateu, 2000). Instead, a more active approach should be encouraged, where students play a central role in their own learning—an approach that is gaining ground in the training of modern educators (Pozo et al., 2022). Furthermore, gymnastics pedagogy should integrate new technical, methodological, and instrumental approaches, as well as values that align with educational contexts and the specific environments in which gymnastics is taught (Ávalos et al., 2022; Brozas & Vicente, 1999).

Gymnastics has increasingly been recognized in modern times as a fundamental discipline within Physical Education, not only as a tool for motor development but also as a field of knowledge that intersects with multiple areas of pedagogical practice (Vicente-Pedraz & Brozas-Polo, 2017). However, the teaching of artistic gymnastics remains primarily focused on traditional competitive modalities and their technical models, which could limit the exploration of alternative, less competition-driven pedagogical approaches (Bortoleto, 2012). This sport-centered approach, driven in part by media attention and the prominence of Olympic disciplines, may restrict the broader pedagogical potential of gymnastics.

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In the school setting, the floor apparatus is the most practiced and promoted, followed by vault with springboard, while other apparatuses are included to a lesser extent (Rebuffo & Peña, 2023). This finding aligns with the results of this study, which show a clear preference for floor exercises over other motor experiences. Additionally, the experiences mentioned regarding bar exercises outside the school context could be explained by the growing popularity of calisthenics as a bodyweight training method (Panchana & Villao, 2023).

The Chilean National Physical Education and Health Curriculum (MINEDUC, 2012) establishes pre-sport activities for first to fourth grade, while individual sports activities gain greater importance from fifth to eighth grade. This is reflected in the results of this study, where gymnastics activities were more frequently experienced at these levels (see Figure 2). However, the findings also reveal a significant decline in gymnastics experiences at the high school level, which contrasts with what is stipulated in LO1 of the curriculum, which emphasizes the importance of individual sports (MINEDUC, 2013).

The results obtained regarding assessment experiences in artistic gymnastics during school education reveal significant concerns about the technical approach that prevails in Physical Education (PE). This approach, which prioritizes physical-sports performance, is reflected in assessment practices through the imposition of tests and gymnastics circuits that measure students' performance in specific skills. As noted by Kirk (2010) and Tinning (2017), this technical paradigm focuses on measurement and performance comparison, often neglecting educational objectives and students' holistic learning.

A key finding of this study is the frequent mention of fear among students when they were required to perform skills they had not yet mastered. This experience highlights the drawbacks of physical performance tests, which, although supposedly objective, can have detrimental effects on motivation and long-term adherence to physical activity (Camacho-Miñano et al.; Danthony et al., 2020). In this regard, the pressure associated with being assessed on specific skills without proper prior

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development can lead to anxiety and aversion toward gymnastics, ultimately counteracting the potential benefits of Physical Education (Torres, 2019).

However, it was also observed that some students had a positive perception of assessment, particularly those who successfully performed the exercises. In this regard, although the technical approach predominates, it is recommended that students' individual experiences and self-efficacy be considered in the assessment process. In this respect, Calatayud (2021) and Sánchez-Hernández et al. (2022) highlight the importance of implementing assessment methods that not only measure performance but also foster confidence and students' holistic development.

Finally, the results of this study reveal the need to strengthen the educational experiences of elementary and high school students in artistic gymnastics, with the goal of contributing to their progressive and comprehensive development. Additionally, these findings emphasize the importance of equipping future Physical Education teachers with the necessary tools to implement gymnastics instruction safely and effectively (Torres, 2019).

Conclusion

Given the flexibility provided by the national Physical Education and Health curriculum in Chile, artistic gymnastics has been incorporated with varying frequency and levels of complexity, ranging from no experiences in the discipline to the teaching of advanced skills. Most students have engaged with basic floor exercises, such as forward rolls and cartwheels, as well as vaulting activities, which are primarily implemented through station-based exercises and circuits. However, the study's findings indicate that many students face limitations in developing more complex skills, such as beam and rings exercises, suggesting a lack of didactic resources and appropriate teaching strategies for these skills.

The emotions expressed by students during the practice and assessment of gymnastics, including a sense of achievement, fear, and frustration, highlight the need to create an inclusive and positive learning environment that prioritizes students' holistic development. It is crucial to implement assessment methods that not only measure

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performance but also foster confidence and personal growth, aligning with a formative assessment approach.

In this regard, it is essential that gymnastics instruction be approached as a means to achieve students' holistic development, respecting the principle of progression in relation to their individual abilities, rather than being seen as an end in itself. Given the wide range of benefits that gymnastics can offer, it is crucial to adopt an approach that moves away from a purely technical focus, thus preventing negative perceptions of the discipline.

Limitations of the Review and Areas for Future Research

Among the limitations of this review is that the sample represents the experiences of students from a single educational institution, with a predominantly male demographic. Future research could explore differences in student assessment methods in relation to current trends, as well as teachers' perceptions of artistic gymnastics in Physical Education classes. Additionally, further studies are recommended to examine the instruction of other disciplines within the Physical Education curriculum.

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