2025, Retos, 62, 765-776

Assessing the development of the attitudinal style as Pedagogical Model in Physical Education: a scoping review

Evaluación del desarrollo del estilo actitudinal como Modelo Pedagógico en Educación Física: revisión de alcance

*José Luis Álvarez-Sánchez, **Carlos Gutiérrez-García, ***David Hortigüela-Alcalá
*Universidad de León (España), **Universidad de León (España), Universidad de Burgos (España)

Abstract. The scoping review evaluates whether there is sufficient evidence to consider the Attitudinal Style as a pedagogical model in Physical Education. To this end, the review process assessed its strengths and weaknesses, and specific bibliography focused on the main divulgative, and research publications was selected. The study was conducted using the PRISMA-ScR extension (Tricco et al., 2018) by searching 10 bibliographic databases and grey literature to identify other studies on Attitudinal Style. Thus, a total of 104 publications were classified into three main categories: theoretical development (19.60%), practical development (73.58%), and research (6.82%). After a thorough analysis, the scoping study included the 26 most relevant articles, conducted between 2005 and 2023. Of these, eight articles presented evidence of the practical development of the model, 11 constituted the theoretical foundations, and seven focused on investigating its benefits. The selected bibliography confirms that the model meets almost all the criteria established by Chiva and Fernández-Río (2021) to be considered as a pedagogical model. Despite finding certain limitations, its strengths position it as a valuable methodological approach for future research, as well as for its implementation in various national and international educational contexts.
Keywords: Scoping Review, Attitudinal Style, Pedagogical Models, Physical Education, High School.

Resumen. El estudio de alcance evalúa si existe suficiente evidencia para considerar el Estilo Actitudinal como modelo pedagógico en Educación Física. Para ello, en el proceso de revisión se evaluaron sus fortalezas y debilidades, y se seleccionó la bibliografía específica centrada en las principales publicaciones de carácter divulgativo y de investigación. El estudio se llevó a cabo utilizando la extensión PRISMA-ScR (Tricco et al., 2018) mediante la búsqueda en diez bases de datos bibliográficas y en la literatura gris para identificar otros estudios sobre el Estilo Actitudinal. De este modo, un total de 104 publicaciones se clasificaron en tres categorías principales: desarrollo teórico (19.60%), desarrollo práctico (73.58%) e investigación (6.82%). Tras un análisis exhaustivo, el estudio de alcance incluyó los 26 artículos más relevantes, realizados entre 2005 y 2023. De estos, 8 artículos presentaron evidencia del desarrollo práctico del modelo, 11 constituyeron las bases teóricas y 7 se centraron en investigar sus beneficios. La bibliografía seleccionada confirma que el modelo cumple con casi todos los criterios establecidos por Chiva y Fernández-Río (2021) para ser considerado como modelo pedagógico. A pesar de encontrar ciertas limitaciones, sus fortalezas lo posicionan como un planteamiento metodológico valioso para futuras investigaciones, así como para su implementación en diversos contextos educativos nacionales e internacionales.
Palabras clave: Revisión de alcance, Estilo Actitudinal, Modelos Pedagógicos, Educación Física, Educación Secundaria.

Fecha recepción: 04-09-24. Fecha de aceptación: 26-10-24
José Luis Álvarez-Sánchez
josel.alvsan.2@educa.jcyl.es

Introduction

In the twenty-first century, the teaching and learning of physical education (PE) in schools present significant challenges (MacPhail & Lawson, 2020). There has been a notable shift from conventional teacher-centered methods towards more student-centered frameworks (Casey, 2014; Fernández-Río & Iglesias, 2022). This shift aims to address the limitations observed in traditional PE (Metzler, 2005), such as the use by PE teachers of the same limited number of teaching styles regardless of the content, the learning outcomes they hope to achieve, and an analysis of their students' readiness to learn (Kirk, 2005).

In light of these challenges, a models-based approach, rooted in Pedagogical Models (PMs), is regarded as a versatile solution for enhancing the adaptability of PE (Casey & Kirk, 2021). This approach diverges from focusing solely on content or the teacher, striving to align learning outcomes with the needs of students and teaching styles (Casey, 2016). Therefore, PMs emerged from the combination of context, subject matter, and teachers' and students' expectations and behaviours, conceived as a whole construct (Casey, 2016). Across anglophone nations, this methodological approach gained momentum, with educators and scholars exploring various PMs (Metzler, 2005; Kirk et al., 2006; Kirk, 2013; Lund & Tannehill, 2014; Ennis, 2016). Notably, countries like the United States, the United Kingdom or Australia have seen the development and adoption of models such as Sport Education (SE) (Siedentop et al., 2011), Teaching Games for Understanding (TGfU) (Alison & Thorpe, 1997), Cooperative Learning (CL) (Johnson & Johnson, 1999) or Teaching Physical and Social Responsibility (Hellison, 2011), to name a few. The development and adoption of pedagogical approaches in PE have undergone global expansion (Casey & Kirk, 2021). Educators and scholars worldwide have developed PMs to address the diverse needs of students in various educational contexts. For instance, the development of the Physical Literacy Model in the Anglo-Saxon and primarily Canadian context (Whitehead, 2010) or the Model for Health-Based PE originating in Belgium (Haerens et al., 2011) exemplify this global trend. These PMs, which have been progressively emerging and are also being explored in the Spanish context (Pérez-Pueyo et al., 2021), are referred to as "emerging PMs" (Fernández-Río et al., 2016), as their expansion is not yet as significant. This sets them apart from basic or established PMs that have experienced initial and broader dissemination internationally (Haerens et al., 2011). In this way, in Spain there has been

a significant growth in the dissemination and treatment of local models like the Integrated Technical-Tactical Model (ITTM) (López-Ros & Castejón, 1998), Ludotechnical model (Valero & Conde, 2003) Pedagogical Treatment of the Body (Vaca-Escribano, 1988) or the Attitudinal Style (AS) (Pérez-Pueyo, 2005;2010a).

The AS, which was developed over 20 years ago, is centered on attitudes as the core element of the teaching and learning process, with the primary goal of fostering greater motivation towards PE and enhancing learning (Pérez-Pueyo, 2016). This model has been categorized as an emerging PM (Fernández-Río et al., 2016). However, it is essential to conduct a comprehensive analysis of the scientific literature to confirm whether it meets the characteristics required of a PM.

In this way, we will utilize the prototype of a PM proposed by Chiva and Fernández-Río (2021) (see Figure 1). The development of this prototype is guided by the criteria established by Haerens et al. (2011) and Williams and Wainwright (2016) and is informed by the conceptualization of the foundations and criteria of models-based practice as articulated by Jewett et al. (1995), Casey (2014, 2017), Metzler (2017), Lund and Tannehill (2010), and Kirk (2010). In fact, this study can serve as a guide for future research aiming to assess whether a specific PM meets all the necessary criteria to be considered as such.

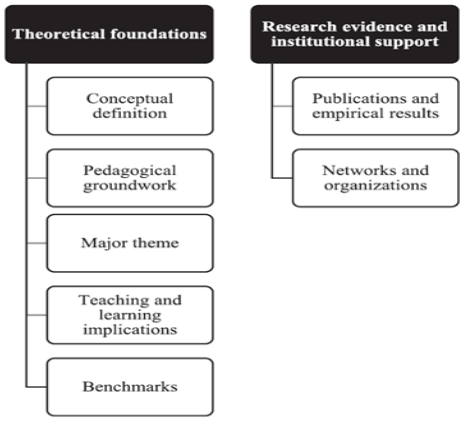

Figure 1. Flow chart for the construction of a prototype pedagogical model within models-based practice (Chiva-Bartoll & Fernández-Rio, 2021)

The main objective of this scoping review was to assess the characteristics and development of the AS as a PM. This review also aimed to gather all published literature on the AS and provide a select bibliography that allows the research and teaching community to become acquainted with, understand, and apply the model.

Methods

Protocol and registration

The scoping review protocol was registered with OFS support and adhered to the framework outlined by Tricco et al. (2018), incorporating the PRISMA-ScR extension for Scoping Reviews. All 21 points were covered, with further inclusion of the PRISMA-S extension (Rethlefsen et al., 2021) in sections 7 and 8, enhancing the thoroughness of reporting for each search component and promoting reproducibility.

Eligibility criteria

The inclusion/exclusion criteria for article selection were as follows: Publications needed to focus on AS within either a theoretical or practical context in PE. Consequently, practical proposals with less detailed development, publications with theoretical aspects already covered in more extensive works, and those exhibiting significant similarity were excluded. In this regard, given the existence of multiple publications on the practical application of the model, researchers selected those most representative of each content typically included in the PE curriculum, namely the natural environment, physical condition, sports, and body expression.

Additionally, full-text availability was established as a prerequisite for inclusion.

Information sources

The initial search, conducted on January 5, 2024, targeted ten electronic databases based on their significance and relevance. In 16 august 2024, a final update search was conducted; however, this search did not yield any additional significant results.

These databases renowned in the field of Education ERIC (n=0), Psychology (Psicodoc and PsychInfo), Sports sciences (SportDiscus), Spanish Language Scientific Literature (Dialnet and Scielo) and Multidisciplinary research (Scopus, PubMed, WOS Core collection and ProQuest dissertation (n=1).

Additionally, secondary sources were explored, including publications on ResearchGate, Google Scholar, and ORCID by leading experts and authorities on AS. Data were also gathered from the website 'www.grupoactitudes.es,' which has accumulated publications on AS over several years.

Furthermore, a comprehensive inquiry into grey literature involved requesting and reviewing the curricula of prominent authors in the field. This process included a snowball search, encompassing both Backward Snowballing and Forward Snowballing methodologies.

Search

The search focused on the title and abstract fields, utilizing the search term 'Attitudinal Style' without additional restrictions. Although this approach could result in a high volume of references for screening, its aim was to minimize the risk of overlooking crucial research. It is important to note that the validity of the search strategy was confirmed by all researchers using the Peer Review of Electronic Search Strategies (PRESS) checklist (McGowan et al., 2016).

Selection of sources of evidence

First, for publications found in the main databases, the extraction of information was automated using the Mendeley bibliographic management tool. On the other hand, publications identified through secondary sources were manually added by two of the authors. During the initial review phase, duplicate publications were automatically eliminated, followed by a cursory examination of the titles to ensure that all duplicates had been removed.

In the second step, inclusion/exclusion criteria were applied based on the examination of the title, abstract, and keywords. Finally, during the third step, the full text of the remaining records was scrutinized to confirm adherence to the inclusion/exclusion criteria. This entire process was conducted with each record being independently reviewed by two researchers. Any discrepancies or disagreements were resolved through consultation with a third reviewer.

Data charting process

Data extraction from studies meeting selection criteria included bibliographic details, research approach, analyzed PM characteristics, and key findings. For research articles, additional data were collected.

This extraction process was manually carried out by two researchers, with data categorized in an Excel spreadsheet. Any discrepancies were resolved through discussion between reviewers after independently reviewing all articles. In cases where further information was needed, authors of primary studies were contacted via email.

Data items

The following key data items were systematically extracted to address the research objectives: (1) Bibliographic information (title, authors, country, publication year), (2) Research approach (theorical development, practical application and research) (3) Analyzed PM characteristics (theoretical foundations, teaching and learning implications, benchmarks, research evidence, and institutional support: publications, empirical results, and networks and organization), (4) Key findings (Summarized insights and outcomes derived from each study).

The following data were extracted for research articles: Sample characteristics (size, age, female percentage), Outcomes, Intervention description and results.

Critical appraisal of individual sources of evidence

Within the methodology section, a critical appraisal of each individual source of evidence was undertaken. Specific risk of bias assessment tools adapted to the various study types included were employed. Two reviewers independently assessed study quality, with any discrepancies resolved through discussion until consensus was achieved. The outcomes of this appraisal were succinctly outlined in the results section, providing an overview of the identified bias risk in each study and emphasizing key findings regarding evidence robustness.

Synthesis of results

The structure of the results has been organized into different sections. Firstly, the general characteristics of the studies included in the select bibliography are presented in a table format. Research studies are further detailed in another table, allowing for a more in-depth exploration of various data, such as sample size, analyzed variables, and obtained results.

Subsequently, a descriptive overview of the most noteworthy information gathered from the selected publications is provided. The aim is to offer a comprehensive and organized summary of the findings, facilitating a clear understanding of the essential features that define the AS, as well as its relation to the characteristics that a PM should have.

Results

Selection of sources of evidence

During the initial review phase, 34 duplicate articles were excluded. In the next step, 13 publications were disregarded after assessing their title, abstract, and keywords as irrelevant to AS in PE. This left 51 eligible publications, which underwent full-text review.

During refinement, 21 reports lacked detailed development compared to others, leading to their exclusion. Additionally, 11 publications duplicated theoretical aspects already covered. Consequently, 19 articles were chosen.

Exploring secondary sources yielded 25 additional publications on ResearchGate and the "groupactitudes" website. Citation searching revealed 28 more publications. This brought the total eligible publications to 53.

After full-text screening, 24 articles lacked detailed development, 8 duplicated theoretical aspects, and 20 were too like others, resulting in the selection of 7 articles. Combining both search methods yielded a final bibliography of 26 publications.

The article flow, from identification to inclusion, is depicted in Figure 2, following the PRISMA guideline for systematic reviews (Page et al., 2021).

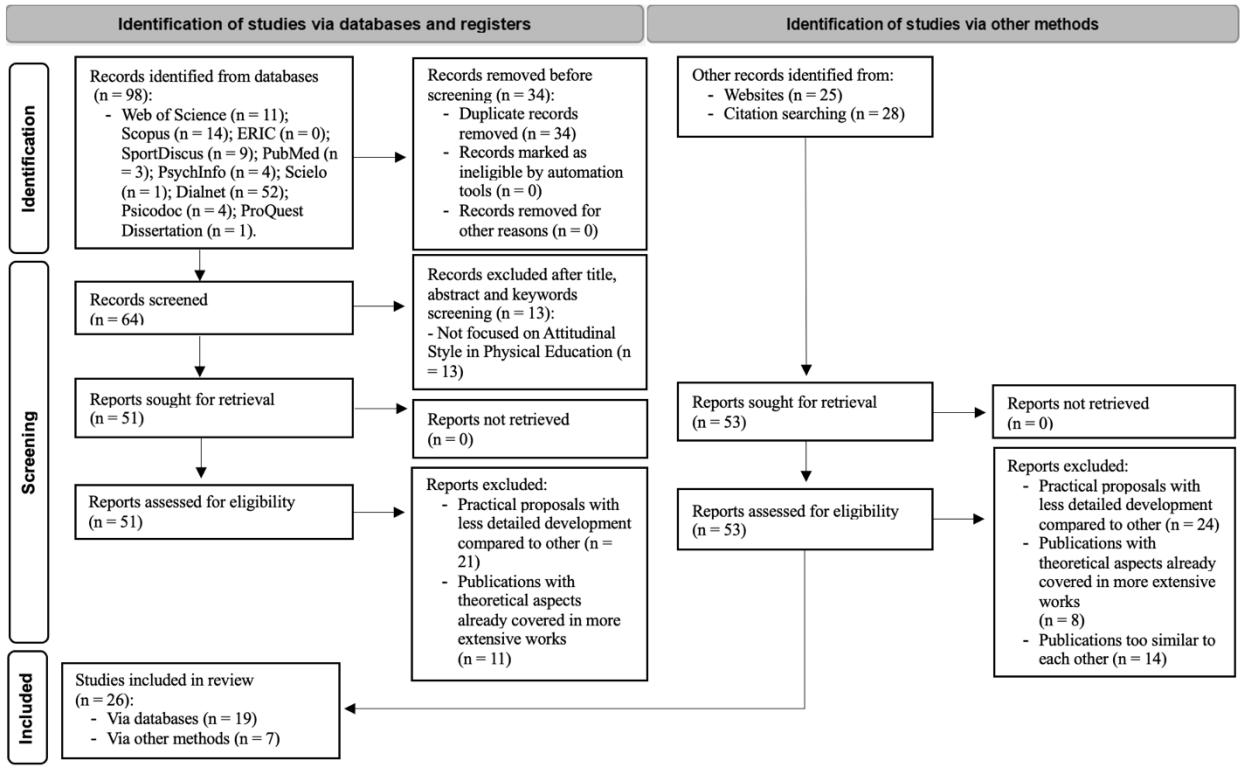

Figure 2. PRISMA flowchart of study selection process (based on Page et al., 2021)

Characteristics of sources of evidence

The studies included in this scoping review were carried out between 2005 and 2023. All the research was conducted in Spain except for one study conducted in Costa Rica (Hortigüela-Alcalá et al., 2018). The general characteristics of papers included in this study are reports in Table 1 and Table 2.

A total of 11 publications constitutes the theoretical development of the model (1,2,3,4,5,9,11,14,16,19 & 22). Within these publications, the following information can be analyzed: theoretical foundations, including conceptual definition, pedagogical groundwork, and major theme; teaching and learning implications; and benchmarks.

On the other hand, a total of 8 publications provides evidence of the practical development of the model (6,7,8,10,12,13,23 & 26), addressing its repercussions on the teaching-learning process and benchmarks. These publications offer various examples in the design of didactic units for different content areas in PE following the theoretical foundations of the AS.

At this point, it is important to note that in the existing literature on the model, many more examples of its application in specific content areas can be found. In this regard, a comprehensive bibliography supplement containing a compilation of all these practical proposals is provided in the Supplementary Table (1).

Finally, a total of 7 articles (15,17,18,20,21,24 & 25) stand out, focusing on the investigation of the benefits derived from the application of the AS.

Table 1.
General characteristics of included articles in the scoping review

Authors-Year	Approach	Analyzed PM characteristics	Key findings
1. Pérez-Pueyo (2005)	Theorical development	Theorical foundations	Comprehensive development of the model. Concept, areas of interest, key components, and exemplifications.
2. Pérez-Pueyo et al. (2008)	Theorical development	Benchmark	Formative assessment and its relationship with the AS. First practical application in a sport unit.
3. Pérez-Pueyo (2010a)	Theorical development	Theorical foundations; Teaching and learning implications	Step-by-step concretization of how to design didactic units. Session model, types of activities, resources, and general considerations.
4. Pérez-Pueyo (2010b)	Theorical development	Theorical foundations; Teaching and learning implications	Theoretical deepening on the development of the model. New nuances and considerations in relation to previous publications.
5. Pérez- Pueyo (2010c)	Theorical development	Theorical foundations; benchmark	Prominent publication showcasing the essence of the model and its ability to transcend the classroom. The final assembly as a moment of collective enjoyment.
6. Pérez-Pueyo (2010d)	Practical application	Teaching and learning implications; benchmark	Article showcasing one of the distinctive features of the model: Street festivals, settings, and performances.
7. Pérez-Pueyo (2010e)	Practical application	Teaching and learning implications; benchmark	Complete Book on the Application of Sports Science in Football Treatment: Developed Teaching Unit.

8. Pérez-Pueyo & Herrán-Álvarez (2011)	Practical application	Benchmark	Formative assessment as an essential component in intentional physical activities and final assemblies to achieve greater student learning.
9. Pérez-Pueyo (2012a)	Theorical development	Theorical foundations	Evolution of the model and its expansion towards addressing basic competencies and its relationship with CL.
10. Pérez-Pueyo (2012b)	Practical application	Teaching and learning implications; benchmark	Comprehensive book detailing a step-by-step didactic unit on acrobatics.
11. Pérez-Pueyo (2013a)	Theorical development	Theorical foundations; benchmark	Theoretical evolution of the model. Integration of formative and shared assessment as a key component in its application.
12. Pérez-Pueyo (2013b)	Practical application	Teaching and learning implications	The potential of the model to ensure success for all, regardless of motor abilities, specific attention needs, and/or special requirements.
13. Pérez-Pueyo (2013c)	Practical Application	Teaching and learning implications	A book on approaching games and warm-ups. A critical and reflective perspective on teaching practice.
14. Hortigüela-Alcalá & Pérez-Pueyo (2015).	Theorical development	Networks and organization	Descriptive summary of the creation of the interdisciplinary and inter-level workgroup on attitudes. Functioning, organization, members, and objectives.
15. Hortigüela-Alcalá et al. (2015)	Research	Publications and empirical results	This research determines the effects of two teaching methodologies (AS and traditional approach) on the student's perceptions about responsibility in the evaluation of a PE teaching unit.
16. Pérez-Pueyo (2016)	Theorical development	Theorical foundations; Teaching and learning implications; benchmark	Analysis of the Evolution of AS in the last Twenty Years.
17. Hortigüela-Alcalá., Pérez-Pueyo, et al. (2016)	Research	Publications and empirical results	This research analyzes the perceptions of secondary students on the implicit factors in the physical self, after receiving a teaching unit fitness under the AS.
18. Hortigüela-Alcalá, Fernández-Río, et al. (2016)	Research	Publications and empirical results	This research assesses the effects of the prolonged use of two different pedagogical approaches (AS and traditional approach) on students and teachers' perceptions.
19. Pérez-Pueyo & López-Pastor (2017)	Theorical development	Benchmark	Formative and shared assessment as an integral element of the model in improving the teaching-learning process.
20. Hortigüela-Alcalá et al. (2017)	Research	Publications and empirical results	The research study analyzes students' responsibility in the assessment and explores the relationship between the role and assessment of the delegation of responsibility.
21. Hortigüela-Alcalá et al. (2018)	Research	Publications and empirical results	This research analyzes the perceived motivational climate and physical activity performance through jump rope workshops in the training of PE teachers.
22. Heras-Bernardino et al. (2019)	Theorical development	Theorical foundations	The possibilities of hybridization between the AS and the self-regulation model.
23. Heras-Bernardino et al. (2020)	Practical application	Theorical foundations; Teaching and learning implications; benchmark	Proposal throughout the Secondary stage on how to implement the AS and self-regulation model to address the treatment of physical fitness content.
24. Pérez-Pueyo et al. (2020)	Research	Publications and empirical results	This research analyzes the perception of future teachers on the usefulness and transferability of the AS in their classes.
25. López et al. (2022)	Research	Publications and empirical results	This research examines self-determined motivation between two groups that received the same jump rope didactic unit. One group received sessions through gamification, while the other utilized the AS.
26. Pérez-Pueyo et al. (2023)	Practical application	Teaching and learning implications; benchmark	The AS and content in the natural environment: A proposal on overcoming obstacles and rope work through the AS and CL.

Critical appraisal within sources of evidence

This section is dedicated to a thorough evaluation of the seven selected research articles. To this end, two risk of bias assessment tools have been utilized based on the study type: the Methodological Index for Non-Randomized Studies (MINORS) in Slim et al. (2003) for Hortigüela-Alcalá et al. (2015, 2016a, 2016b, 2017, 2018) and López et al. (2022), and The JBI "Checklist for Qualitative Research" as used in Lockwood et al. (2015), and applied to Pérez-Pueyo et al. (2020).

Two authors conducted the measurement of methodological quality independently. In case of disagreement, a third review author was consulted.

An overview of the risk of bias for all included studies is presented in Tables 2 and 3. The most significant risk of bias across the studies was identified in López et al. (2022), while the lowest risk of bias was observed in Pérez-Pueyo et al. (2020).

Table 2.
Risk of bias across Non-Randomized Studies

Authors	Design	SA	CP	PD	AE	UA	FP	LFU	SSC	ACG	CG	BEG	ASA
Hortigüela-Alcalá et al. (2015)	CT	+	+	+	+	+-	+-	+	+	+	+	+	+
Hortigüela-Alcalá, Pérez-Pueyo, et al. (2016)	CT	+	+	+	+	+-	+-	+	+	*	*	*	*
Hortigüela-Alcalá, Fernández-Río, et al. (2016)	CT	+	+	+	+	+-	+-	+	+	+	+	+	+
Hortigüela-Alcalá et al. (2017)	CT	+	+	+	+	+-	+-	+	+	+	+	+	+
Hortigüela-Alcalá et al. (2018)	Q-E	+	+	+	+	+-	+-	+	+	*	*	*	*
López et al. (2022)	CT	+	+	+	+-	-	-	+	+	+	+	+	+

Authors	Design	SA	CP	PD	AE	UA	FP	LFU	SSC	ACG	CG	BEG	ASA

Note. (+) = positive evaluation; (-) = negative evaluation; (+-) uncertain or mixed evaluation; (*): No CG; CT= Controlled trial; Q-E= quasi-experimental ; SA= Stated Aim; CP = Consecutive Patients; PD = Prospective Data; AE = Appropriate Endpoints; UA = Unbiased Assessment; FP= Follow-Up Period; Loss to Follow-Up (LFU); SSC= Study Size Calculation; ACG= Adequate Control Group; CG= Contemporary Groups; BEG= Baseline Equivalence of Groups; ASA= Adequate Statistical Analyses.

Table 3.
Risk of bias across qualitative research included study

Authors	Design	PC	MOC	MDC	MDA	MRI	CTP	RI	PR	RE	CDC
Pérez-Pueyo et al. (2020)	Qualitative exploratory	+	+	+	+-	+	+	-	+	+	+

Note. PC= Philosophical Congruity; MOC= Methodology-Objective Congruity; MDC= Methodology-Data Collection Congruity; MDA= Methodology-Data Analysis Congruity; MRI= Methodology-Results Interpretation Congruity; CTP= Cultural/Theoretical Positioning; RI= Researcher Influence; PR= Participant Representation; RE= Research Ethics; Conclusion-Data Congruity (CDC).

Results of individual sources of evidence

Regarding publications related to the theoretical foundation of the model, it is noteworthy that the model undergoes three stages in its development: a first phase in which the characteristics, components, and essential pillars are established (1, 2, 3, 4, and 5); a secondary phase in which two new key elements are introduced in its development: formative and shared assessment as an essential component (11 & 19) and its expansion to inter-level and interdisciplinary levels beyond PE, connecting with the development of basic competencies (9 & 14); and a third and final phase regarding its possibilities of hybridization and the adherence to the self-regulation model (22). These three phases can be clearly seen reflected in the article (16), which summarizes the most important theoretical and practical considerations.

As for practical publications on the treatment and inclusion of the AS in PE classes, the books (7, 10 & 13) fully develop didactic units on football, acrobatics, and intentional games and warm-ups, respectively. In this line, in the book chapter (23), it is explained how to address the treatment of physical condition throughout secondary school under the hybridization of the self-regulation model and the AS.

On the other hand, although to a lesser extent, in the articles (6 & 26), the treatment of street festivals, shows, and outdoor settings is shown from a very applicable and summarized perspective, as well as a proposal on overcoming obstacles and rope work.

Finally, regarding the research articles, specific characteristics are presented in Table 4.

Table 4.
Specific characteristics of the research studies included in the scoping review.

Authors-Year-Country	Sample / age / female (%)	Outcomes	Intervention/description	Results
Hortigüela-Alcalá et al. (2015) Spain Design: Controlled trial (CT)	785/13-14 years/41.3	Students' responsibility in the assessment	Control Group (CG): Acrobatic unit based on a traditional method range from six to nine sessions. Intervention Group (IG): Acrobatic unit based on AS for a duration of ten sessions.	IG showed higher sense of responsibility in the evaluation. The CG perceived a different level of responsibility depending on the high-school institution.
Hortigüela-Alcalá., Pérez-Pueyo, et al. (2016) Spain Design: CT	231/13-14/years/44.1	Physical self-concept	No CG IG: Physical Fitness Unit under the AS methodology. With a duration of ten sessions	Significant increase in Physical self-concept
Hortigüela-Alcalá, Fernández-Río, et al. (2016) Spain Design: CT	241/13-14 years /51.7	Students and teachers' perceptions	CG: traditional approach IG: AS Both of them participated in three consecutive learning units of team sports (24 sessions)	IG perceived the PE class significantly more useful. This group also developed a significantly stronger empathy towards the teacher.
Hortigüela-Alcalá et al. (2017) Spain Design: CT	684/13-14 years/ 57.3	- Student's responsibility in the assessment - Relationship between the role and assessment of delegation of responsibility	CG: Traditional approach IG: AS Both groups participated in a didactic unit on acrobatics for 8 sessions	Significant differences were obtained in the IG compared to CG. Higher perception of responsibility in the IG.
Hortigüela-Alcalá et al. (2018) Costa Rica Design: quasi-experimental cross-sectional.	125/40 ± 13 years /63.3	- Perceived motivational climate - Physical Activity performance	IG: five practical training workshops of combas, two hours each (10 hours in total). AS methodology. No CG	Significant relationship between CL and role of the teacher regarding the moderate-vigorous intensity of the practice.
Pérez-Pueyo et al. (2020) Spain Design: Qualitative exploratory study	12/20-21 years/58.3	Effects on Initial Teacher Training	The research involved designing theoretical and practical classes for a semester using the AS. Reflective group diaries were created weekly throughout the course.	PE initial teachers consider the model as a transcendental methodological tool in understanding and addressing PE at school.
López et al. (2022) Spain Design: CT	178/12-16 years/46.1	Self-determined motivation	IG I: AS IG 2: Gamification Both groups: Jump rope unit over six sessions	An increase in demotivation was observed, although not significantly, in both groups

Synthesis of results

In this section, a descriptive overview of the most noteworthy information gathered from the selected articles is

presented. This information is classified based on the characteristics that PMs should possess to be considered as such.

Theorical foundations: conceptual definition, pedagogical groundwork and major theme

The AS emerges with the aim of addressing various daily issues identified in PE classes (Pérez-Pueyo, 2005). At times, progressions in various content areas left some students behind in the class group, consequently generating a negative experience for them. In this regard, its longitudinal implementation in the classroom aims to reverse this situation, fostering increased levels of student motivation and attitude towards practice (Pérez-Pueyo, 2005; Pérez-Pueyo, 2010a). Therefore, the model doesn't focus solely on a motor dimension but on the comprehensive development of the five types of abilities as defined by Coll (1991). Thus, its purpose is to achieve an integral improvement in students (Pérez-Pueyo, 2005; Pérez-Pueyo, 2010a).

To achieve these objectives, initially students attain individual achievements in the classroom so that, subsequently, they engage more willingly in final productions or assemblies that foster a sense of belonging to a group where everyone is valued. This might be the most challenging part, as some students can easily disengage. Regarding its application, the session design addresses three components: intentional bodily activities (IBA), sequential organization towards attitudes (SOA), and final assemblies (FA). However, the author doesn't perceive this design as rigid (Pérez-Pueyo, 2016).

The design of these three components is supported by a strong pedagogical foundation aligned with the objectives of the model. IBA are tailored to the context and the characteristics of the students under the premise that they must not only be correct but also suitable (Pérez-Pueyo, 2005). These activities should meet the following requirements; (1) Use of motor skills as a means and not as an end in itself, (2) Engage the student and foster individual and/or group responsibility and effort to achieve a goal, (3) Assist the student in recognizing and surpassing their limits, promote interaction with others and connect to self-evaluation and/or peer evaluation processes (Pérez-Pueyo, 2005; Pérez-Pueyo, 2010a; Pérez-Pueyo, 2010b).

Regarding the SOA, students begin activities in pairs or trios based on affinity, then progress to groups of four, eight, twelve, and finally the whole class. This sequence allows students to initially have positive experiences with like-minded peers, then to work with other classmates as heterogeneous groups are formed (Pérez-Pueyo, 2016). Again, this organization is not rigid but varies based on the content or the type of assembly. For instance, creating ranges like "between 5 and 7" or "6 and 9" is established to prevent any student from feeling excluded. The assemblies conclude the process followed so far by showcasing both individual and group progress through a project (Pérez-Pueyo et al., 2008). However, the FA should not be understood as a closed group composition, since they can be of different types (Pérez-Pueyo & Herrán-Álvarez, 2011).

Teaching and learning implications.

The model is based on five pillars: critical reflection by the teacher on educational practice, intentional work on motivational aspects to create positive experiences, using motor skills as a means, critical perspective regarding the more mechanistic view of PE, questioning demonstration as an essential resource in the classroom (Pérez-Pueyo, 2016).

The first idea relates to reflecting on whether traditional teaching styles cater to students' needs, the necessity of progressions in education, and the feasibility of activities where students feel accomplished in both individual and group achievements without exclusion based on their motor competency level. This links to the second pillar, as performance-oriented approaches, driven by an ego-based motivational climate (Fernández-Río et al., 2014). Therefore, the focus shifts towards creating a task-oriented environment where collaboration among peers is necessary (Pérez-Pueyo, 2016). Consequently, technical progressions are not utilized due to the high level of heterogeneity in the classroom, diverse student needs, and the complexity of fostering cooperation in competitive environments (Pérez-Pueyo, 2016). In this way, the teacher becomes a facilitator of learning, adapting educational practices to accommodate various learning paces and student characteristics. While the teacher's demonstration as a role model is valuable, it's not always deemed necessary (Pérez-Pueyo, 2010a; Pérez-Pueyo, 2010b).

Benchmarks

The disseminating publications regarding the model, especially those in book format (Pérez-Pueyo,2010e; Pérez-Pueyo, 2012b; Pérez-Pueyo, 2013c; Heras-Bernardino et al., 2020), stand out for delving into the evaluation processes by detailing the different procedures and evaluation tools. In fact, the application of formative and shared assessment is integrated as part of the model (Pérez-Pueyo & López-Pastor, 2017).

Some examples mentioned can be established as reference, for instance, the use of a rating scale in a group activity preparing a play in a team sport to be performed in front of classmates (Pérez-Pueyo et al., 2008). The model integrates formative assessment as a learning-generating element, self-learning, and satisfactory personal relationships, linked to improved self-esteem, and motivation towards practice. It is based on the idea that the keys to assessment in the application of the AS do not lie in the assessment procedures or tools but in the approaches to assessment practice, understanding that the keys are in the why, for what, and for whom the assessment is carried out (Pérez-Pueyo et al., 2008).

Research evidence and Institutional support: publications, empirical results and networks and organization

(a) Publications and empirical results

The model outlined aims to increase student responsibility and participation. Hortigüela-Alcalá et al. (2015) demonstrated higher student responsibility levels compared to traditional methods with AS in 785 secondary school students. Intentional bodily activities in classroom sessions initially enhanced students' self-concept and confidence, regardless of motor competence level (Hortigüela-Alcalá et al., 2016a). Another study (Hortigüela-Alcalá et al., 2016b) analyzed long-term effects, showing improved perceptions of PE among 241 students and 2 teachers, with teachers noting enhancements in learning transfer and teacher-student connection.

In subsequent research, Hortigüela-Alcalá et al. (2017) found higher perception of responsibility in the Intervention Group among 683 students aged 13-14. In a quasi-experimental design (Hortigüela-Alcalá et al., 2018), a significant relationship was found between motivational climate and teacher's role concerning physical activity performance in 125 teachers.

Pérez-Pueyo et al. (2020) surveyed 12 initial PE teachers, who perceived the model as crucial for understanding and addressing PE in school settings. López et al. (2021) investigated self-determined motivation between two groups undergoing jump rope exercises, finding a non-significant increase in demotivation contradicting other findings.

(b) Networks and Organization

The implementation of AS across various stages occurred within the interdisciplinary working group "Attitudes," which broadened its focus to basic competencies integration into the curriculum through the "INCOBA Project." While the primary pedagogical focus remains school PE (Hortigüela-Alcalá & Pérez-Pueyo, 2015), the overarching aim is to identify and disseminate successful practices within education, fostering student learning. This group advises government ministries and educational councils and is part of the European KeyCoNet network, supported by the European Commission's Lifelong Learning Programme (Pérez-Pueyo, 2016). Comprising over 60 teachers from all educational levels, the group freely shares materials, resources, and innovative proposals.

Discussion

Systematic literature search and select bibliography for practical application.

The publications found are primarily associated with its theoretical development (19.60%), practical development (73.58%), and research (6.82 %). These data illustrate the creator's intention behind the model, who has committed to disseminating and practically conveying how the model is applied in the classroom.

The data indicate that while there is a substantial body of literature on the AS, other well-established PMs (Fernández-Río et al., 2018) on an international scale have accumulated a longer history and a more extensive literature production, especially in terms of studies and empirical results. In the literature, various meta-analyses can be found, among which the one conducted on CL (Fernández-Espínola et al., 2020), SE (Manninen & Campbell, 2021) or TGfU (Ortiz et al., 2023). On the other hand, it is worth noting that a significant portion of it is authored or co-authored by the model's creator. This situation may be attributed to the goals and philosophy of the "attitudes" working group (Hortigüela-Alcalá & Pérez-Pueyo, 2015).

Sufficiency of evidence to consider AS as PM

Firstly, several publications suggest that the key theoretical foundation of the model revolves around attitudes and motivational climate (Pérez-Pueyo, 2005; Pérez-Pueyo, 2010a; Pérez-Pueyo, 2010b). The author is focused on creating necessary methodological tools to generate positive experiences and counteract inequalities caused by ego-centered environments (Fernández-Río et al., 2014). In this way, the AS moves away from more traditional approaches, leaning towards those with a high participatory nature (López-Pastor & Gea, 2010) and, above all, cooperative (Johnson & Johnson, 1999; Fernández-Río & Velázquez, 2005). Moreover, the model doesn't focus solely on a motor dimension but on the comprehensive development of the integral treatment of students' abilities (Metzler, 2011). Specifically, it focuses on affective-motivational competencies (Pérez-Pueyo, 2016), unlike the SE Model (Siedentop et al., 2011), which centers on sports participation, or CL, which focuses on collaboration (Johnson & Johnson, 1999).

The pedagogical groundwork of the model emphasizes the strategic use of bodily and motor skills as a means rather than an end to broader educational goals (Pérez-Pueyo, 2005; 2010a; 2010b). In terms of teaching and learning processes and benchmarks, the model rests on five key pillars (Pérez-Pueyo, 2016). This integration allows for seamless application of formative and shared assessment, enabling students to be aware of their challenges, successes, and improvements (Pérez-Pueyo & López-Pastor, 2017)

Finally, concerning publications, empirical results, and professional networks, although the number of studies on the model is still limited, most of the studies advance the model's capacity to foster learning. However, it is important to note that although the risk of bias in these studies is not high, there is a need for longitudinal studies to measure the long-term effects.

Analysis of AS strengths and weaknesses

Regarding weaknesses, it is notable that there is a lack of substantial evidence and empirical results analyzing the benefits of the AS. No research has been found that thoroughly examines whether the model leads to improvements in student motivation and attitude, which is its primary objective. Additionally, most publications have been produced within a Spanish national context.

Concerning strengths, the scientific literature offers numerous informative publications providing a detailed guide on how to implement the AS in the classroom.

The AS demonstrates extraordinary educational potential as it can be hybridized with other PMs, allowing teachers to adapt the methodology based on the content or specific characteristics of a student group. Another notable aspect is the clear integration of formative and shared assessment as a key element of the model (Chang & Lund, 2019; Tolgfors, 2019).

Additionally, its interdisciplinary and interlevel nature enables strong transferability to other educational areas and stages, facilitating institutional decision-making regarding the work of key competencies (OECD, 2019).

Conclusions

While the AS has generated a considerable body of literature, it is important to acknowledge that other well-established PMs on an international scale, especially those such as CL, SE, and TGfU, have a more extensive history and literature production, including meta-analyses. Despite the limited number of empirical studies, the practical experience gained from the AS has been implemented by various professionals, forming a robust network that promotes the model nationally and internationally. Examining the sufficiency of evidence for considering AS as a PM, the selected bibliography confirms that the model addresses almost all criteria established by Chiva and Fernández-Río (2021). In conclusion, while the AS presents certain limitations, its strengths, and potential for further development and international exploration make it a valuable focus for future research and implementation in diverse educational contexts.

References

Alison, S., & Thorpe, R. (1997). A comparison of the effectiveness of two approaches to teaching games within physical education. A skills approach versus a games for understanding approach. *The British Journal of Physical Education*, *28*(3), 9-13.

Arksey, H., O'Malley, L., Baldwin., Harris, J., Mason, A., Newbronner, E., & Hate, P. (2002). *Services to Support Carers of People with Mental Health Problems: Overview Report for the National Co-ordinating Centre for NHS Service Delivery and Organization R &D (NCCSDO)*. National Co-ordinating Centre for NHS Service Delivery and Organization. http://www.york.ac.uk/inst/spru/pubs/rworks/oct2004-03.pdf

Casey, A. (2014). Models-based Practice: Great White Hope or White Elephant? *Physical Education and Sport Pedagogy 17*(4), 1-17. https://doi.org/10.1080/17408989.2012.726977

Casey, A. (2016). *Models-Based Practice. Handbook of Physical Education Pedagogy*. Routledge.

Casey, A., & Kirk, D. (2021). *Models-based practice in Physical Education.* Routledge.

Chang, L.S., & Lund, J. (2018). Assessment for learning in physical education: The what, why and how. *Journal of Physical Education, Recreation & Dance, 89*(8), 29-34. http://dx.doi.org/10.1080/07303084.2018.1503119

Chiva-Bartoll, O., & Fernández-Rio, F. (2021). Advocating for Service-Learning as a pedagogical model in Physical Education: towards an activist and transformative approach. *Physical Education and Sport Pedagogy, 27*(5), 545-558. https://doi.org/10.1080/17408989.2021.1911981

Coll, C. (1991). *Psicología y currículum: una aproximación psicopedagógica a la elaboración del currículum escolar*. Paidós Ibérica

Ennis, C.D. (2016). *Routledge handbook of physical education pedagogies*. Routledge

Esben, V., & Jens-Ole, J. (2022). Versatility and pedagogical models in physical education. *Physical Education and Sport pedagogy, 29*(3), 1-10. https://doi.org/10.1080/17408989.2022.2054970

Fernández-Espínola, C., Abad-Robles, M.T., Collado-Mateo, D., Almagro, B., Castillo, E., & Fuentes-Guerra, F.J. (2020). Effects of Cooperative-Learning Interventions on Physical Education Students' Intrinsic Motivation: A Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health, 17*(12), 4451. https://doi.org/10.3390/ijerph17124451

Fernández-Río, J., & Iglesias, D. (2022). What do we know about pedagogical models in physical education so far? An umbrella review. *Physical Education and Sport Pedagogy, 29*(2), 1-16. https://doi.org/10.1080/17408989.2022.2039615

Fernández-Río. J., & Velázquez, C. (2005). *Desafíos físicos cooperativos*. Wanceulen.

Fernández-Río, J., Calderón, A., Hortigüela-Alcalá., Pérez-Pueyo, Á., & Aznar, M. (2016). Modelos Pedagógicos en Educación Física: Consideraciones teórico-prácticas para docentes. *Revista Española de Educación Física y Deportes, 413*, 5-75. https://doi.org/10.55166/reefd.v0i413.425

Fernández-Río, J., Méndez-Giménez, A., & Cecchini, J.A. (2014). A cluster analysis on students' perceived motivational climate. Implications on psycho-social variables. *Spanish Journal of Psychology, 17*(1), 1-13. https://doi.org/10.1017/sjp.2014.21

Haerens, L., Kirk, D., Cardon G., & De Bordeaudhuij, I. (2011). Toward the Development of a Pedagogical Model for Health-Based Physical Education. *Quest, 63*(3), 321–338. https://doi.org/10.1080/00336297.2011.10483684

Hellison, D. (2011). *Teaching responsibility through physical activity (3rd. ed.)*. Human Kinetics.

Heras-Bernardino, C., Pérez-Pueyo, Á, Hortigüela-Alcalá, D., & Herrán-Álvarez, I. (2020). La condición física en

la etapa secundaria desde el Estilo Actitudinal: Incorporación de estrategias de autorregulación del aprendizaje en España. En T. Muñoz-Fernández, P. Reinaga-Estrada, J. J. Morales, J.R. López y Taylor & M.F. González, *Actualidades en Educación Física y Deporte 2020*. Guadalajara, pp. 29-60. México: Universidad de Guadalajara

Hortigüela-Alcalá, D., Pérez-Pueyo, Á., & Moncada, J. (2015). An analysis of the responsibility of physical education students depending on the teaching methodology received. *Journal of Physical Education and Sport, 15*(2), 202–207. https://doi.org/10.7752/jpes.2015.02031.

Hortigüela-Alcalá, D., & Pérez-Pueyo, Á. (2015). Grupo Internivelar e Interdisciplinar "Actitudes" Ejemplo del funcionamiento de ciclos de Investigación-Acción en Educación Física. En FEADEF (Ed.), *Actas del XI Congreso Internacional sobre la enseñanza de la Educación Física y el Deporte Escolar,* León, pp. 1-8. León: Alto Rendimiento.

Hortigüela-Alcalá, D., Fernández-Río, J., & Pérez-Pueyo, Á. (2016). Long-term effects of the pedagogical approach on the perceptions of physical education by students and teachers. *Journal of Physical Education and Sport, 16*(4), 1326-1333. https://doi.org/10.7752/JPES.2016.04210

Hortigüela-Alcalá, D., Pérez-Pueyo, Á., & Calderón-Luquin, A. (2016). Effect of the pedagogical model on the physical self-concept of students in physical education. *Retos, 30*, 76–81. https://doi.org/10.47197/retos.v0i30.36371

Hortigüela-Alcalá, D., Pérez-Pueyo, Á., & Fernández-Río, J. (2017). Relación entre el estilo actitudinal y la responsabilidad evaluativa del alumnado de Educación Física. *Cultura, ciencia y deporte, 12*(35), 89-99. https://www.redalyc.org/pdf/1630/163051769002.pdf

Hortigüela-Alcalá, D., Salicetti-Fonseca, A., Hernando-Garijo, A., & Pérez-Pueyo, Á. (2018). Relationship between the level of physical activity and the motivation of physical education teachers. *Sportis*, *4*(2), 331-348. https://doi.org/10.17979/sportis.2018.4.2.3291

Jewett, A., Bain, L.L., & Ennis, C.D. (1995). *The Curriculum Process in Physical Education*. Brown and Benchmark.

Johnson, D.W., & Johnson, R.T. (1999). Making cooperative learning work. *Theory Into Practice, 38*(2), 67-73. https://doi.org/10.1080/00405849909543834

Kirk, D. (2005). *Model-Based Teaching and Assessment in Physical Education: The Tactical Games Model*. SAGE.

Kirk, D., McDonald, D., & O 'Sullivan, M. (2006). *Handbook of Physical Education*. SAGE.

Kirk, D. (2013). Educational Value and Models-Based Practice in Physical Education. *Educational Philosophy and Theory, 45*(9), 973–986. https://doi.org/10.1080/00131857.2013.785352

Levac, D., Colquhoun, H., & O'Brien, K.K. (2010). Scoping studies: advancing the methodology. *Implementation Science, 5*(1), 69. https://doi.org/10.1186/1748-5908-5-69

Lockwood, C., Munn, Z., & Porrit, K. (2015). Qualitative research synthesis: methodological guidande for systematic reviewers utilizing meta-aggregation. *International Journal of Evidence-Based Healthcare*, *13*(3), 179-187. https://doi.org/10.1097/XEB.0000000000000062

López-Ros, V., & Castejón Oliva, F.J. (1998). Técnica, táctica individual y táctica colectiva. Teoría de la implicación en el aprendizaje y la enseñanza deportiva (I). *Revista de Educación Física. Renovar la teoría y la práctica*, (68), 5-9.

López-Pastor, V. M., Monjas, R., Gómez J., López, E., Martín, J., González, J., Barba- Martín, J. J., Aguilar, R., González, M., Heras-Bernardino, C., Martín, M. I., Manrique, J. C., & Marugán, L. (2006). La evaluación en educación física. Revisión de los modelos tradicionales y planteamiento de una alternativa: La Evaluación Formativa y Compartida. *Retos*, *10*, 31–40. https://doi.org/10.47197/retos.v0i10.35061

López-Pastor, V.M., & Gea, J.M. (2010). Innovación, discurso y racionalidad en educación física. Revisión y prospectiva. *Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte*, *10*(38), 245-270.

López, J.M., Férriz, A., Baena, S., & García, S. (2022). Incidencia motivacional de modelos pedagógicos emergentes en estudiantes de educación secundaria de educación física. *Logía*, *Educación Física y Deporte, 2*(2), 58–73. http://hdl.handle.net/10045/121949

Lund, J., & Tannehill, D. (2014). *Standards-based physical education curriculum development*. Lones & Bartlett Publishers

MacPhail, A., & Lawson, H. (2020). *School Physical Education and Teacher Education. Collaborative Redesign for the 21st Century*. Routledge.

Manninen, M., & Campbell, S. (2022). The effect of the Sport Education Model on basic needs, intrinsic motivation and prosocial attitudes: A systematic review and multilevel meta-analysis. *European Physical Education Review, 28*(1), 78-99. https://doi.org/10.1177/1356336X211017938

McGowan, J., Sampson, M., Salzwedel, D.M., Cogo, E., Foerster, V., & Lefebvre, C. (2016). PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. *Journal Clinical Epidemiology,* 75, 40-46. https://doi.org/10.1016/j.jclinepi.2016.01.021

Metzler, M. (2005). *Instructional Models for Physical Education*. Holcomb Hathaway.

Metzler, M. (2017). *Instructional Models in Physical Education*. Routlegde.

OECD. (2019). *OECD Skills Strategy 2019: Skills to Shape a Better Future. OECD Publishing*. https://doi.org/10.1787/9789264313835-en

Ortiz, M., Meroño, L., Morales-Belando, M.T., Vaquero-Cristóbal, R., & González-Gálvez, N. (2023). Teaching Games for Understanding in Game Performance and Psychosocial Variables: Systematic Review and Meta-

Analysis of Randomized Control Trial. *Children,* 10, 573. https://doi.org/10.3390/children10030573

Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron. I., Hoffmann, T.C., Mulrow, C.D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, S.E., Chou, R., Glanville, J., Grimshaw, J.M., Hróbjartsson, A., Lalu, M.M., Li, T., Loder, E.W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *PLOS Medicine, 18*(3). e1003583. https://doi.org/10.1371/journal.pmed.1003583

Pérez-Pueyo, Á., & López-Pastor, V. (2017). El estilo actitudinal como propuesta metodológica vinculada a la evaluación formativa. En V. López-Pastor & Á. Pérez Pueyo (Eds.), *Evaluación formativa y compartida en educación: experiencias de éxito en todas las etapas educativas*, pp. 240-259. Servicio de publicaciones de la Universidad de León. http://hdl.handle.net/10612/7058

Pérez-Pueyo, Á. (2005). *Estudio del planteamiento actitudinal del área de educación física de la Educación Secundaria Obligatoria en la LOGSE (una propuesta didáctica centrada en una metodología basada en actitudes)*. Servicio de publicaciones de la Universidad de León.

Pérez-Pueyo, Á. (2010a). *El estilo actitudinal: propuesta metodológica para desarrollar unidades didácticas en educación física*. CEP.

Pérez-Pueyo, Á. (2010b). *El estilo actitudinal: una propuesta metodológica basada en las actitudes*. ALPE Servicios Docentes Profesionales.

Pérez-Pueyo, Á. (2010c). *Asombrarte: El estilo actitudinal, la evaluación formativa y el proyecto cooperativo*. ALPE Servicios Docentes Profesionales.

Pérez-Pueyo, Á. (2010d). Fiestas, escenarios y espectáculos en la calle: nosotros trabajamos, ellos disfrutan. *Tándem: Didáctica de la educación física,* 32, 25-35.

Pérez-Pueyo, Á. (2010e). *El fútbol a través del estilo actitudinal y la evaluación formativa: unidad didáctica*. ALPE Servicios Docentes Profesionales.

Pérez-Pueyo, Á. (2012a). El estilo actitudinal: El desarrollo de las competencias tes Profesiones básicas a través de una metodología de carácter cooperativo. En busca del logro de todos y todas. In Velázquez, C., Rodríguez-Jiménez, J.J., de Prado, S. (Eds.), *Actas del 8º Congreso Internacional de Actividades Físicas Cooperativas* Valladolid, pp. 34-67. Universidad de Valladolid. https://hdl.handle.net/10612/20460

Pérez-Pueyo, Á. (2013b). El estilo actitudinal: Una propuesta para todos y todas desde la inclusión en la educación física. *Lúdica Pedagógica,*18,81–92. https://doi.org/10.17227/01214128.18ludica81.92

Pérez-Pueyo, Á. (2013a). La Evaluación Formativa y Compartida en el Marco del Estilo Actitudinal. *Des-encuentros,* 10, 6-17.

Pérez-Pueyo, Á. (2016). El estilo actitudinal en educación física: evolución en los últimos 20 años. *Retos, 3*(29), 207-215. https://doi.org/10.47197/retos.v0i29.38720

Pérez-Pueyo, Á. (2012b). *Unidad didáctica acrobacias en la ESO: el montaje final*. Actitudes profesionales.

Pérez-Pueyo, Á. (2013c). *Cómo enfocar el calentamiento y los juegos desde la intencionalidad del estilo actitudinal*. Actitudes profesionales.

Pérez-Pueyo, Á., & Herrán-Álvarez, I. (2011). Deportes colectivos y evaluación formativa en el marco del estilo actitudinal. En J. L. Lillo, J.P. Martínez, P. Bodas, M.S. Valle & A. Dorado (Eds.), *Actas del X Congreso Deporte y Escuela*, pp. 207-217. Diputación Provincial de Cuenca.

Pérez-Pueyo, Á., Heras-Bernardino, C., & Herrán, I. (2008). Evaluación formativa en la educación secundaria obligatoria. Su aplicación a una unidad didáctica de deportes colectivos en el marco del estilo actitudinal. *Revista Española de Educación Física y Deportes, 9*(383), 45-66. https://doi.org/10.55166/reefd.v0i383.337

Pérez-Pueyo, Á., Hortigüela-Alcalá, D., & Fernández-Río, J. (2021). *Modelos pedagógicos en Educación Física: Qué, cómo, por qué y para qué*. León: Servicio de publicaciones de la Universidad de León. http://hdl.handle.net/10612/13251

Pérez-Pueyo, Á., Hortigüela-Alcalá, D., Gutiérrez-García, C., Herrán-Álvarez, I., Heras-Bernardino, C., Garrote, J., Hernando-Garijo, A., Casado-Berrocal, A., Sobejano, M., & Álvarez-Sánchez, J.L. (2023). El franqueamiento de obstáculos y la cabuyería desde el estilo actitudinal y el aprendizaje cooperativo. En Á, Pérez-Pueyo, R.A. Barba-Martin, D. Hortigüela-Alcalá, & C. Gutiérrez-García (Eds.), *XII Congreso Internacional de Actividades Físicas Cooperativas*, pp. 217–222. Servicio de publicaciones de la Universidad de León. http://hdl.handle.net/10612/16798

Pérez-Pueyo, Á., Hortigüela-Alcalá, D., Hernando-Garijo, A., & Granero-Gallegos, A. (2020). The attitudinal style as a pedagogical model in physical education: Analysis of its effects on initial teacher training. *International Journal of Environmental Research and Public Health 17*(8), 2816. https://doi.org/10.3390/IJERPH17082816

Rethlefsen, M.L., Kirtley, S., Waffenschmidt S, et al. (2021): an extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. *Systematic Reviews, 10*(39). https://doi.org/10.1186/s13643-020-01542-z

Siedentop, D., Hastie, P., & Van der Mars, H. (2011). *Complete Guide to Sport Education*. Human Kinetics.

Slim, K., Nini, E., Forestier, D., Kwiatkowski, F., Panis, Y., & Chipponi, J. (2003). Methodological index for non-randomized studies (MINORS): development and validation of a new instrument. *ANZ journal,* 73, 712-716. https://doi.org/10.1046/j.1445-2197.2003.02748.x

Tolgfors, B. (2019). Transformative Assessment in Physical Education. *European Physical Education Review, 25*(4), 1211-1225. http://dx.doi.org/10.1177/1356336X18814863.

Tricco, A.C., Lillie, E., Zarin, W. et al. (2018) PRISMA Extension for Scoping Reviews (PRISMA-ScR):

Checklist and Explanation. *Annals of Internal Medicine, 169*(7), 467-473. https://doi.org/10.7326/m18-0850

Vaca-Escribano, M.J. (1988). Tratamiento pedagógico de lo corporal: el niño entero en el pensamiento del maestro. *Revista pedagógica*, *4*(13), 147-158.

Valero, A., & Conde, J.L. (2003). *La iniciación al atletismo a través de los juegos*. Aljibe

Whitehead, M.E. (2010). *Physical Literacy: Throughout the Lifecourse*. Routledge

Williams, A., & Wainwright, N. (2016). A new Pedagogical Model for Adventure in the Curriculum: Part one Advocating for the Model. *Physical Education and Sport Pedagogy, 21*(5), 481-500. https://doi.org/10.1080/17408989.2015.1048211

Datos de los/as autores/as y traductor/a:

José Luis Álvarez-Sánchez	josel.alvsan.2@educa.jcyl.es	Autor/a – Traductor/a
Carlos Gutiérrez-García	cgutg@unileon.es	Autor/a – Traductor/a
David Hortigüela-Alcalá	dhortiguela@ubu.es	Autor/a – Traductor/a