

INPLASY PROTOCOL

Gamification for Physical Education: a concept to be clarified

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Arêas da Silva, LP¹; Nascimento, MPS²; Santos, YMA³;
Ribeiro, ALA⁴.

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Corresponding author:
Alexandre Ribeiro

alexandre.edfisicaunb@gmail.com

Author Affiliation:
Universidade de Brasília

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**Review Stage at time of this
submission:** Formal screening
of search results against
eligibility criteria.

Conflicts of interest:
None declared.

Review question / Objective: What is gamification for Physical Education?

Condition being studied: Gamification in Physical Education.

Information sources: Only the following electronic databases were used: PubMed, Web of Science, EBSCO, ERIC, SciELO, Scopus, and SPORTDiscus. However, if necessary that we request the full-text of the manuscript, could have contact with authors during the full-text screening.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 May 2021 and was last updated on 13 May 2021 (registration number INPLASY202150050).

INTRODUCTION

Review question / Objective: What is gamification for Physical Education?

Rationale: Innovations in education and Physical Education involve the motivation and engagement of students and clients, so that they adhere to educational and motor programs. However, there is a

conceptual confusion about what is understood as gamification, and clarifications are needed. This is also influenced by a concept reframed by the advent of digital games, that is, the game concept itself. Thus, today it is necessary to separate the analog game and the digital game, raising questions such as exergames and motor games refer to the same phenomenon? What are serious

games, didactic games, pedagogical games, and game-based learning? Are these concepts could be understood as gamification? Finally, is creating a game a gamification or game design action? So, it is necessary to understand these and other related concepts, including their applicability to and in Physical Education.

Condition being studied: Gamification in Physical Education.

METHODS

Search strategy: ((gamification OR gamifications OR gamificação OR gamificações) OR ("game design" OR "design de jogos") OR ("pedagogical game" OR "pedagogical games" OR "jogo pedagógico" OR "jogos pedagógicos" OR "educational game" OR "educational games" OR "jogo educacional" OR "jogos educacionais" OR "educational gaming" OR "jogos educativos" OR "game-based learning" OR "games-based learning" OR "aprendizagem baseada em jogo" OR "aprendizagem baseada em jogos" OR "instructional game" OR "instructional games" OR "jogo instrutivo" OR "jogos instrutivos" OR "didactic game" OR "didactic games" OR "jogo didático" OR "jogos didáticos")) AND ("physical education" OR "educação física" OR "physical education and training" OR "educação física e treinamento").

Participant or population: There were no restrictions.

Intervention: Gamification.

Comparator: There were no restrictions.

Study designs to be included: Clinical trials (randomized and non-randomized), observational studies (retrospective and prospective), case or series studies, and pilot study.

Eligibility criteria: Primary studies that used or brought the idea the gamification in any area of Physical Education. It is important to note that as there is still no definition of what gamification is for physical education

and that we aim to define this, we included studies that the applied concept similar or usually confounded with gamification idea (eg., exergame, game-based learning, serious game, didactic game, and pedagogical game); and that the Physical Education was understood as movement body culture.

Information sources: Only the following electronic databases were used: PubMed, Web of Science, EBSCO, ERIC, SciELO, Scopus, and SPORTDiscus. However, if necessary that we request the full-text of the manuscript, could have contact with authors during the full-text screening.

Main outcome(s): As we aim to define/conceptualize what is gamification for Physical Education, there is no clear outcome to be analyzed, be it related to health, performance, social, or others types.

Additional outcome(s): Not applicable.

Data management: Two independent authors performed the data extraction using a Google spreadsheet, to collect the data necessary to carry out the procedures, characterization of the included studies, and data analysis. In addition, the extraction was checked by the other authors.

Quality assessment / Risk of bias analysis: Not applicable. Reason: as we will work with the definition of the concept of gamification, we understand that the quality and risk of bias of the included studies do not impact our aim and conclusion.

Strategy of data synthesis: It will be checked whether the authors of the included studies describe the concepts of interest in the present systematic review. Subsequently, even if they do not describe them, we will carry out a conceptual analysis of the target interests, which will be grouped and discussed from the perspective of their use in practice (ie., concept vs. application) and types of games (ie., motors, analog and digital).

Subgroup analysis: Not planned.

Sensitivity analysis: Not planned. Reason: as we will work with the definition of the concept of gamification, we understand that a sensitivity analysis of the included studies does not impact our aim and conclusion.

Language: Only studies with full-text written in Portuguese and/or English.

Country(ies) involved: Brazil.

Keywords: Gamification, Physical Education; Motor games; Digital games; Analog games.

Contributions of each author:

Author 1 - Leonardo Peixoto Arêas da Silva
- Contributed conception of the study, in analysis and interpretation of data, and revise critically.

Author 2 - Maria Paula da Silva Nascimento
- Contributed with search the databases, screening by titles, abstracts and full text, and data extraction.

Author 3 - Yuri Matias Alves dos Santos
- Contributed with search the databases, screening by titles, abstracts and full text, and data extraction.

Author 4 - Alexandre Lima de Araújo Ribeiro
- Leading the project, conception the study, analyzing and interpreting the data, and revise critically.