The use of gamification in the teaching of human sciences and natural sciences: a practice with a neuroscience approach in pedagogical training

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The new teaching perspectives suggest considering that technology is part of the students' lives and for this reason the content is not only on the blackboards, notebooks and books. A new teaching model, the demand for active methodologies is present. When considering the student as an active element, just as there is an individual characteristic in the way each one learns, it implies reviewing the teaching processes. In the conduction of classes that value the role of students, in an incorporation of active methodologies, gamification is a strategy that can be used as an important motivational resource. This way, the development of thinking and cognition skills can stimulate memory and attention, precepts of cognitive neuroscience, in a proposal to enable teachers in training, to act in an interdisciplinary way in the teaching of Natural and Human Sciences. The present research proposes to present an instructional design contextualized through the potential of gamification beyond existing educational models, and that contributes to incorporate the real situations of instruction of game elements. The research with a qualitative focus, regarding the objectives had an exploratory and descriptive character. The research population involved 31 (thirty-one) students enrolled in the 3rd period of the Pedagogy Course, from a private educational institution, located in the northern region of the State of Rio de Janeiro. As for technical procedures, this is a case study. For data collection, the following instruments were used: participatory observation and online questionnaires from the surveymonkey platform. The connection of the learning objectives of the disciplines of Construction of Knowledge in Natural Sciences, Construction of Knowledge in Social Sciences and Professional Training III, with an integrating axis of the Atlantic Forest biome, it all could build a prototype of an online educational game "Save the Muriqui". From a pretest carried out with pedagogues in a training process, it can be seen that this can be applied to students in Elementary School (First Segment), adapting to the needs of an education that encourages the formation of creative and innovative thinking.

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