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## CONSTRUCTION OF A GAMIFICATION TRAY GAME IN THE PATIENT SAFETY EDUCATIONAL STRATEGY: EXPERIENCE REPORT

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### ABSTRACT

To analyze the knowledge of nursing students through the construction of a methodology with gamification in the use of a board game about patient safety goals. This is an experience report about an educational action developed with eighth semester nursing students at the Metropolitan University Center of the Amazon in April 2019, located in the city of Belem-PA. A gamified board game was used, built based on the patient safety goals. Only one hour of the board game was played, conducted by eighteen students of both sexes, including the participation of two academics from the tenth semester. It was observed that the students did not have total control over the subject, but the board provided them with memories about what was studied, emphasizing learning in a playful and fun way. Most students cited the words “didactic”, “interesting”, “remember” and “playful” as a reflection of their experience. Gamified elements can be used to increase student engagement and motivate them to actively participate in situations for better content absorption.

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### INTRODUCTION

A permanent technology in the health work process, contributing to the construction of the saber, displayed from the moment of the initial idea, creating and implementing knowledge, as well as the result of this same construction (MOREIRA T, et al., 2018). The traditional model of Health Education corresponds to the way of educating conceptualized

as banking education, in which the educator's role is to “fill” the students with content, making deposits of communiqués. In this view, men are passive beings, so it is up to education to adapt them to reality. In this model of education, it is considered that the more one teaches the more one knows. There is what characterizes a very full head, in which knowledge is accumulated and stacked (FIGUEIREDO M, et al., 2010). According to Oliveira R (2018), in education, many

researchers have sought to incorporate into the learning process the use of gamification to motivate and engage their students. Similarly, for Fardo M (2013), the use of gamification can really motivate students to engage in their classroom activities and can provide teachers with better tools to guide and reward their students. Thus, games are no longer just a means of entertainment and are now being used in a number of important areas, such as industry, health and education. Games are motivating because they involve the cognitive, emotional and social area of players (OLIVEIRA R, 2018). Therefore, these educational games favor the apprehension of content, provide meaning of complex definitions, foster creativity, decision making, active participation, critical sense, teamwork and pleasure in learning. In addition, games can be the most reliable expression of playfulness, which, in turn, reflects a space where rationality and sensitivity are present, enhancing socio-affective, cognitive skills and emotional intelligence (GURGEL P and FERNANDES M, 2015). In the meantime, the main objective of this study was to conduct an educational action with nursing students, through the construction of a gamification board game, in order to emphasize the importance of patient safety in the applicability of daily professional actions.

## METHODS

This is an experience report research, conducted by nursing students from the fifth period to complete the discipline. From the contextualization of different journals it was possible to build and describe a gamified methodology. This is an experience report research, conducted by nursing students from the fifth period to complete the discipline. From the contextualization of different journals it was possible to build and describe a gamified methodology.

**Bibliographic survey and class choice:** A bibliographic survey was conducted from 2010 to 2019 in search of literature in SCIELO databases with the following keywords: gamification, health education strategies, educational games, patient safety and technologies in health education. The criterion for choosing the class was based on the penultimate year of graduation of the students of the Metropolitan University Center of Amazonia (UNIFAMAZ), in order to lead them to a self-analysis about their acquired knowledge about patient safety and their determinations professional perspectives brought from the importance of the theme.

**Construction of the board:** The board was designed and designed in the form of a banner (2.3 m by 3.0 m) in order to achieve a more playful gamification so that students could dynamically interact with an expanded play space containing eighteen "houses". Or phases, in which they were organized at random from the six patient safety goals. It was also used, Datashow and slide, in which there was an image referring to patient safety to provide a more personalized environment regarding the subject. The questions in the game were directed at the six patient safety goals, allowing the student to advance or return "homes" according to their development in the game and had reflections that meant various "gifts" such as "dance during the next round" of to bring a more fun environment. Both were present in A4 papers, on which they were printed and cut out. In addition, the questions and reflections were organized in envelopes of two different colors (yellow and blue), with the yellow envelopes for reflection and the blue envelopes for questions.

There was the production of newsletters made in couche paper, containing various information about the theme, since such informative were intended exclusively for the specific "house" of the game: "Did you know?". Also, there was the construction of a die, whose was made with fabric (helanca) and filling; containing numbers from 1 to 6 for the purpose of assisting the player, so that by throwing such a die the person could thus develop in the game and be able to move forward or backwards. And thus, enable greater participation of students in educational action.

## Educational action

The action took place at the Metropolitan University Center of Amazonia, located in the neighborhood of Reduto, municipality of Belém in the State of Pará. It took place from 7:30 pm to 8:30 pm, on April 10, 2019. The target audience eighteen students from the Bachelor of Nursing course, sixteen from the eighth period and two from the tenth who were interested in the action based on the information they obtained about the activity. The class was divided into three teams, each team choosing one player to participate in the board game, totaling three players. The first "house" of the board contained information for the start of the game, which allowed each student chosen as a player to wear their Personal Protective Equipment (PPE) as gloves, caps, coats and protective masks, in which they were available from the authors.

## RESULTS

After the activity, the class was gathered in a conversation circle so that everyone could expose their learning and their doubts about the game and its content. It was found that the students did not have complete mastery of the subject, although they were in the eighth semester. The reflections and successful attitudes contained in the game were cited in order to prompt them into discussion and, consequently, to remind them of the importance of the subject that was addressed by them in the fifth period of graduation. Students in the tenth period reported the need to discuss patient safety, because as they are in the process of internship, the routine leads to mostly wrong actions. In addition, they stressed the importance of teamwork. Thus, according to these students the board provided them with memories of what was studied, emphasizing learning in a playful and fun way, in order to recognize that this teaching method is valid, as they could share knowledge. It was observed that during the game there was interaction of the class with the subject. The class showed immense interest in participating in the board game, as the playful and enjoyable component of the activity was perceived mainly during role interpretations in simulated interactions and in the decision-making process and information analysis by the teams, where most mentioned the words "didactic", "interesting", "remember" and "playful" as a reflection of the experience.

## DISCUSSION

The results found in the present study suggest that the gamification methodology is a recent and relevant resource for teaching patient safety in an academic environment. Santos J (2017) in a systematic mapping of the gamification literature guided this statement, reporting that the main benefit of this resource is associated with the establishment of innovations

capable of promoting encouragement and involvement of students. Considering that the current reality of the teaching-learning model causes academic disinterest in the way knowledge is passed on through speculation and the 21st century generation is characterized by the use of different technologies such as computers and video games that usually learn by practicing, because they already do it spontaneously, when, for example, unveiling the operation of a new electronic device without the use of a manual, it is essential to apply strategies such as gamification to involve the student in the learning process (FERNANDES C and RIBEIRO E, 2018).

On this subject, Figueiredo M, *et al*, (2015) in an exploratory study from 2000 to 2014 on the practice of teaching gamification, showed that no article presented evidence of disadvantages in the use of gamification, noting that in a university environment this strategy invests significantly in the training of teachers who present teaching based on playful principles. Given this, the action was successful, since the students were able to absorb knowledge in a playful way where they showed willingness and enthusiasm to pass on to their friends and family the knowledge acquired about patient safety.

### Final Considerations

Whereas patient safety involves activities to reduce the risk of unnecessary harm associated with health care to an acceptable minimum, where simple routine actions such as proper hand washing before and after any procedure substantially increase the prevention of associated infections the assistance. We understand that the role of the nurse as an educator in this scenario is paramount, acting continuously in the dissemination of knowledge related to patient safety. Thus, it is envisaged to stimulate discussions about educational actions that value the practice aimed at university students. In this context, we strongly warn that these practices are carried out in various environments using energizing resources such as gamification as a methodology. From this perspective, we conclude that elements with patient safety gamification geared toward nursing academics emerge as possibilities for meaningful learning tools, so that individuals better absorb content and become able to intercede on health-illness indicators. productive mode.

As a team, the experience made possible the scientific improvement and the formation of professionals that meet the health needs. We look forward to collaborating in further studies that can excite teaching-related analysis through gamification for higher level students. In addition, provide evidence that gamification contributes to teaching and learning in a pleasurable and playful way, providing teachers with better tools to teach classes and provide student involvement.

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