

**USE OF THE UNO GAME IN LEARNING: A PLAYFUL ADAPTATION FROM
AN ENVIRONMENTAL PERSPECTIVE**

**USO DO JOGO UNO NA APRENDIZAGEM: UMA ADAPTAÇÃO LÚDICA EM
PERSPECTIVA AMBIENTAL**

Raelison Simplício Rocha

raelison.simplicio@escolar.ifrn.edu.br
<https://orcid.org/0000-0002-2663-5165>

Vitor Emanuell Ferreira Silva

emanuell.vitor@escolar.ifrn.edu.br,
<https://orcid.org/0009-0007-1174-2340>

Joshuá Davinci Nunes Rocha

Geography Professor at IFRN Campus Natal Central

joshua.rocha@ifrn.edu.br
<https://orcid.org/0000-0001-5055-6507>

INTRODUCTION

With its meaning rooted in the act of playing, from the Latin 'ludus', playfulness presupposes fun and when used for education, whether basic or advanced, it becomes one of the most effective tools in learning. Therefore, the choice of games for educational development is important in the cognitive stimulation of the learner (Silva, 2019). Thus, the playful element can facilitate the understanding of the theme addressed in the classroom by the students, especially in extensive content, as Melo, Àvila, and Santos (2017, p. 4) assert:

"The insertion of playful didactic materials has been shown to be an interesting tool, since this dense content can be presented in a more summarized, interactive, and rich in meaning way, developing concepts considered difficult to understand and improving the student's participation in the construction of their own learning and also their relationships with other colleagues" (Melo; Àvila; Santos, 2017, p. 4).

But it is also worth noting the relevance for the teacher, as Kishimoto (1999, cited in Tessaro and Jordão, p.2) acknowledges that "playful formation allows the educator to know themselves as a person, to know their possibilities, unblock resistances, and have a

clear vision of the importance of play and toys for the life of the child, the young person, and the adult." From this perspective, the production of playful material requires that the teacher use their creative potential and their capacity for innovation, reinventing teaching. So, it is clear that both students and teachers have their logical-imagetic abilities developed, facing the thinking of the material produced and the strategy used in carrying out the proposed activity.

Due to the playfulness that games possess and the possibility of transforming the existing reality, the Uno game is viable for such a purpose. This also happens because in Piaget's writings, during the learning process, just as there is age progress, there is cognitive progress and games accompany this advancement, and among the types of games, rule-based games stand out, of which Uno is included (Tessaro and Jordão, 2007).

The choice of Uno, specifically, is due to the popularity of the game among different population segments. The game was launched by the American company Mattel, became popular in Brazil from 2005 onwards, and was spread by children and teenagers. Given this propagation, the idea of adapting to environmental themes arose, resulting from the indispensability of forming critical and aware citizens regarding environmental preservation.

Thus, the objective of this work is to present the results obtained from the application of the Uno Terra game, an adaptation aimed at raising awareness among students about climate change and their role as agents of change in space, working with creativity and dynamism the contents that were previously taught in the classroom, allowing even greater socialization of knowledge among students.

MATERIALS AND METHODS

This study was developed as a result of an activity required by the teacher of Edgar Barbosa State School - located in Natal/RN - Ary Pereira, supervisor of the Institutional Program of Initiation Scholarships in Teaching (PIBID), in which the undergraduate students participate. In the construction of Uno Terra, 128 cards were produced with 60-weight paper, where there are 80 numerical cards and 48 action cards. Rounds can be played between 2 to 4 participants, each starting with 7 cards and the rest face down in a deck. The action cards were adapted, replacing the traditional cards produced by Mattel, in an environmental approach, so that they were subdivided into polluting and ecological cards, hierarchized into 4 levels of severity (Table 1). Regarding level IV, it is a single

card in the deck capable of immediately ending the game, followed by the banning of the player in another 3 games, as the individual won the match through a global catastrophe. In addition to the ecological and polluting cards, there are also reversal and color change cards

Table 1 – Action cards and their respective levels.

Pollutant Letters	Nível	Ecological Cards	Nível
Temperature increase	III	Oil absorption	III
Acid rain	II	To go by bicycle	I
Melting of glaciers	III	Garbage collection on beaches	II
Extinction of fauna and flora	III	Water economy	III
tobacco industry	I	Recycling and garbage collection	I
Garbage on the street	I	Recycle cooking oil	I
Illegal mining	II	Pollution reduction	III
Fires	II	Reforest	II
Use of plastic	I	No fires	II
Global nuclear war	IV		

Source: authors (2023).

It's worth clarifying that the dynamics of drawing cards and blocking players are based on the interaction between the action cards and their levels. If a player uses a polluting card of a certain level, they will block a number of players equivalent to the level of the card they played. However, if the next authorized player is lucky enough to have an ecological card in their deck with a level equal to or higher than the level of the previously played polluting card and plays it, they will punish the polluting player by forcing them to draw a number of cards equivalent to the level of their damage. For example, if a player plays a level II polluting card, the next 2 players will be blocked during the round. But if the next player plays a level II (or III) ecological card, the polluting player will draw 2 (or 3) cards as a consequence.

The game was deliberately designed so that with each polluted card played, the game situation becomes difficult to solve. This strategy was taken with the objective of the game in mind, which is to raise awareness among students about the difficulty of solving the environmental problems we currently face. The game illustratively demonstrates how easy it is to pollute, but how extremely difficult it can be to restore lost nature (and in some cases, it becomes irreversible, as in the case of the level IV card).

RESULTS AND DISCUSSION

Based on the reality that the planet is going through, due to climate change and the imminent global turmoil, it is necessary for the generations undergoing academic formation to become agents of change in a concrete way and not just in a theoretical-conferential plan. In this regard, environmental education is indispensable in the educational process, and Dias (2006) defines it as:

"A set of activities that seeks to inform and sensitize people about this complex theme, stimulating involvement in actions that promote sustainable habits of natural resource use, as well as fostering reflections on the human-environment relationship" (Dias, 2006 cited in Rossato and Sens Neto, 2014, p.100).

From this perspective, Uno Terra is a tool aimed at assisting in the development of these sustainable habits mentioned by Dias (2006). The action cards illustrating environmental problems depict damages that accelerate excessively the warming that is on the verge of surpassing the boiling point. In contrast, the ecological cards expose solutions that must be exercised daily for everyone to have a future. Based on this conception and the application of the game, we applied a questionnaire with 3 questions to 16 present students regarding the thematic approach that took place at Edgar Barbosa.

The intervention was carried out on August 8, 2023, in a class of the 2nd year of high school. The material was produced in accordance with specific competence 3 of Humanities and Applied Social Sciences according to the National Common Curricular Base (BNCC):

"Contextualize, analyze, and critically evaluate the relationships of societies with nature and their economic and socio-environmental impacts, with a view to proposing solutions that respect and promote socio-environmental awareness and ethics and responsible consumption at the local, regional, national, and global levels" (Brazil, 2017, p. 562).

And also based on the skills presented in Table 2

Table 2 - Skills of Competency 3 of Humanities and Applied Social Sciences for High School according to the BNCC

EM13CHS301	EM13CHS304
Problematicize individual and collective habits and practices of waste production and disposal (reuse and recycling) in contemporary society, and develop and/or select action proposals that promote socio-environmental sustainability and responsible consumption.	Analyze the socio-environmental impacts resulting from the practices of governmental institutions, businesses, and individuals, discussing the origins of these practices, selecting, incorporating, and promoting those that favor socio-environmental awareness and ethics, as well as responsible consumption.

Source: Brasil, 2017, p. 562

Therefore, with the application of the questionnaire, it was possible to infer that among the 16 students of the 2nd year 'A', 15 responded that they were 16 years old and only 1 was 17. Within this sample space of the interviewees, 75% of them stated that the dynamics provided a better understanding of the content, demonstrating that the adolescents being educated extracted the urgent and necessary perception of the need for attitude change. Regarding the creativity of the applied practice, 50% of the students rated it as very good, 43.8% as good, and 6.3% as fair.

Figure 1 - Students playing Uno Terra.



Source: Personal collection (2023)

ACKNOWLEDGMENTS

First and foremost, I thank God for the opportunity to take the first steps in building my career in such a noble area as education. I thank my advisor, Joshuá Davinci, for his support and care in the preparation of this work, which were certainly essential. To my co-author, Vitor Emanuell, my sincere thanks for combining your skills with mine to do our best in carrying out this work, I believe that this is how we grow together. I also thank Ana Regina de Moraes, my partner in Pibid at Edgar Barbosa State School, where we worked together as a pair of scholarship holders and developed, produced, and implemented Uno Terra. To the supervising teacher at the time, Ary Pereira, and the coordinator of the Geography subproject, Maria Cristina, my heartfelt thanks as well.

REFERENCES

- BRASIL. Ministério da Educação. Base Nacional Comum Curricular. Brasília, 2017.
- MELO, Ana Carolina Ataidés; ÀVILA, Thiago Medeiros; SANTOS, Daniel Medina Corrêa. Utilização de jogos didáticos no ensino de ciências: um relato de caso. **Ciência Atual**: Revista científica multidisciplinar das faculdades São José, Rio de Janeiro, v. 9, n. 1, 1-14, 2017.

ROSSATO, Ivete Fátima; SENS NETO, Valdemar Norberto. Trabalho de educação ambiental para conscientizar da importância na reciclagem para preservação do meio ambiente. **Gestão & Sustentabilidade Ambiental**, [S.I.], v. 3, n. 1, p. 98-116, 2014.

SILVA, Nathália Virgínia Lira. **Uno da botânica**: um instrumento de apoio didático para o ensino de morfologia das angiospermas. 2019. 45 f. TCC (Graduação) - Curso de Licenciatura em Ciências Biológicas, UFPE, Vitória de Santo Antão, 2019.

TESSARO, Josiane Patrícia; JORDÃO, Ana Paula Martinez. Discutindo a importância dos jogos e atividades em sala de aula. **Psicologia.Pt**, [S.I.], p. 1-14, ago. 2007.