

University experience: The use of Whatsapp application as a pedagogical tool through the insertion of gamification and didactic choreography



<https://doi.org/10.56238/ptoketheeducati-072>

Carlos Alexandre de Oliveira

Pedagogue, Specialist in Educational Management and Postgraduate in Methodology of Distance Learning. MBA in administrative management
E-mail: alexandre.pedagogo@hotmail.com

Charles Gomes Martins

Pedagogue, University Professor, Master in Education by UFPE and PhD student by the Graduate Program of UFPE- advisor
E-mail: consultoriaeducacional@gmail.com

ABSTRACT

The pandemic was a difficult time of great social, economic, emotional and educational turmoil. School actors and families had to develop new skills in the face of Distance Education. With this we see

that there was a greater commitment of parents to assume the responsibility of monitoring their children and providing guidance. Actions forgotten for a long time due to the fact that families transferred to the school the responsibility for educating their children. In view of these new demands, we seek to understand the use of whatsapp as a pedagogical tool for interaction with students through the use of didactic choreography and gamification. This experience report arose to meet the requirements of the discipline of University Teaching and Integration with the TDIC of PPGEdumatec / UFPE. During the discipline we tested tools and dialogued with theorists who moved us to research.

Keywords: Digital information and communication technologies, Didactic choreography, Gamification, Teaching.

1 INTRODUCTION

Digital Information and Communication Technologies (DICT) are seen in the educational context as tools that facilitate teaching and learning in the classroom. To streamline the work and provide meaningful learning, active methodologies have emerged as a dynamic support that can integrate (digital technologies) and methods (ways of proposing classes / studies / research).

Considering this reality, we aim to report an experience lived in the discipline offered by the Graduate Program in Mathematics and Technological Education of the Federal University of Pernambuco (PPGEdumatec - UFPE), entitled: University Teaching and Integration with TDIC, taught by Professor Maria Auxiliadora Padilha.

This discipline dealt with several topics, among them the integration of information and communication technologies as significant tools in the teaching and learning process in Higher Education.

The readings of the discipline provided content suggested by the teacher and students in class. The students were the researchers and proponents of activities that discussed Teaching in Higher



Education using various contents to broaden the discussion and active methodologies in order to experience them.

In this context, we had the possibility to experience the forms of meetings, face-to-face or online, that could merge our experiences and enrich our didactics actively. Thus, during the discipline, we discussed the content of Pedagogical Innovation in Higher Education with the proposal of the active methodology of Gamification and the online class modality.

Gamification, which is an active methodology, provided us with elements that characterize a game (gamer) when performing the activity. According to Signore and Guimarães (2016) the concept of gamification provides tools found in games that support a certain pedagogical process. In this way, we used a planned activity to conceptualize Pedagogical Innovation in Higher Education using WhatsApp as a tool for environment and support for sharing and discussing the content. As a modality it was proposed that we use online teaching.

This modality provided the experience to be more significant because online education has been demonstrating the possibility of becoming a pedagogical act even without a physical school space. It is also possible for the teacher to be in front of his students in a non-face-to-face manner and the school space is configured.

In view of this, online education has been gaining space and has become even more concrete with its potential considering the need for constant change in society. In this sense, combining all these elements provided a rich learning experience to amplify the possibilities of teaching and improving our teaching practices.

1.1 WHAT IS ACTIVE METHODOLOGY, PEDAGOGICAL INNOVATION AND DIDACTIC CHOREOGRAPHIES?

The debate on technology and its relationship with education has been going on incessantly. Considering the debate on the meanings and meanings existing in this phenomenon (PADILHA, 2019), the active methodology can be an example in this context. When it comes to using as an assumption the autonomy that students currently have in the face of technological processes and their platforms. It can also be noted the possibility of collaborative work between the knowledge brought by these same students and with the expertise that teachers can bring in their pedagogical practice.

The active methodology can be seen as "a starting point to achieve more advanced processes of reflection, cognitive integration, generalization, re-elaboration of new practices," (PADILHA, 2019) It is, therefore, the total particularity given to the student's protagonism in the educational act.

It can be seen as enabling the use of practices that open up possibilities for learners to develop their own ways of learning.



It also captivates the student in the sense that it makes the learning process more attractive and welcoming.

It is easy to notice that technological products and their paradigms are already part of the context of schools and Higher Education Institutes HEIs, such as the great growth in the incessant use of TDICS.

By understanding the active methodology as a contribution that considers the student the protagonist of the process in the construction of knowledge, didactic choreography can be seen as a significant tool that concretizes this description. It can be seen as a tool that concretizes all student action in the face of autonomous experience in the teaching-learning process.

Didactic choreography is a reference between the classroom and the world of dance (PADILHA; ZABALZA, 2016), which can be understood as the teacher's action in the face of the student's improvisation and potential, from the perspective of the relationship between the choreographer (teacher) and the dancer (student), the choreographer therefore accompanies and mediates the students' choreographies.

We can also imagine the following situation: the choreographer follows the (scenario) as the environment where the learning takes place; the (rhythm) which is the diversities of the intellectual styles; the planning as the (script) and the creativity of the students as the (improvisation of the dancer). The student, therefore, has the total freedom to develop his artistic aspects by understanding his learning process.

It is believed that the didactic choreography presents interface with the conception of pedagogical innovation or in the innovation of higher education. Given this, we see that the teacher can become the mediator of learning and stimulate the student in the personal process, guiding their paths and work developing discussions about the processing of knowledge production.

In this context, innovation in higher education can be seen as a new teaching practice that enables the resignification and reorganization of the curriculum based on the reanalysis of pedagogical practices.

Pedagogical practice can be used through the use of gamification and can streamline teaching with the use of games.

Gamification can be understood as the use of the elements that configure a game in a pedagogical practice and considers not only the competitive aspects of a competition or game, it can take into account broader characteristics of the construction of learning, such as emotional and cognitive development. With this, gamification offers in its configuration several potentialities that can be worked in education, in addition to those mentioned.

We believe that in some significant points gamification can be articulated in education, highlighting: stimulation, dedication, responsibility and engagement on the part of students when they



are inserted in activities based on this methodology (SGINORE; GUIMARÃES, 2016). We emphasize once again the viability of this student's autonomy in the construction of knowledge. Considering their prior knowledge, their conceptions and points of view.

2 METHODOLOGY

In this study we used a qualitative research. According to Trivinos (1987), qualitative research facilitates analysis with educational themes, because it allows the confrontation of different ideas. When it was decided what would be our theme (Pedagogical Innovation), form (online) and active methodology (gamification) to be worked on in the discipline, we started a research work. For our first impression about gamification is that it would be to create a game. And how would we do that? What resources would we use?

Research and texts on the subject have shown us that gamification is a way, that is, it is a proposed methodology to boost and provide engagement in classes and explore differentiated steps and new ways of thinking to mediate student learning, which in our case, were the colleagues of the discipline itself.

Faced with this innovation challenge, we used a WhatsApp group. In the second moment, we collected the phones of our colleagues and created a group with the university students and the teacher of the discipline. Then we released the rules of the "game" on whatsapp.

When we created the WhatsApp group, we asked the participants to observe the rules and familiarize themselves with the application tools. We agreed that the class schedule would be that of the face-to-face course, however we would do it online and asynchronously after this first moment through the WhatsApp group, which caused an anxiety in colleagues that we did not expect.

Figure 1 - Created for the WhatsApp group

1.	Interact with provocations, explanations, fugurinhas, gifs, audio, videos and images relevant to the context discussed on Pedagogical Innovation in Higher Education.
2.	Exercise interaction with colleagues based on the provocations launched. For every 15 group contributions, the class will earn bonuses of digital texts, images and video links directed to the concepts explored; (Observe the participation of colleagues).
3.	For every 3 interactions with colleagues, the participant will earn a bonus in private. This bonus will be with extra materials, texts, images and video links on the content of pedagogical innovation, different from those shared in the group.
4.	We will have 4 missions and they will have time to be executed and posted; ATTENTION the deadlines.
5.	The activities will be individual, which does not prevent you from helping each other in private or in the group. If you do not mind collaborating and believe that it can be done! Observe the strategies used, the feelings that these activities cause you due to the difficulty of the missions;
6.	Scores will be added up from: <ul style="list-style-type: none">• Individual presentation (presentation to colleagues in the virtual room via audio) - 1 point• 2 or more references in contributions - 1 point• Mastery of content - 1 point• Concept map - 7 points



7. The ranking will be released at the end of the day.
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We planned the classes using the model of didactic choreographies, where we thought for the cognitive anticipations the mobilization of the students' learning that provided the understanding, reflection, development and systematization of the meaning and postures that involve pedagogical innovation.

In the same logic, the behavioral anticipations dealt with developing behaviors such as attesting WhatsApp as a pedagogical resource, producing activities with the tools available in the app and building a concept map on pedagogical innovation to be presented in the application itself.

Thus, the affective anticipations consisted of the knowledge and potentialities of the WhatsApp application, collaboration with the knowledge of colleagues mediating the creative possibilities that the application used would have to offer and also understanding the capacity of the development of didactic competences using it.

The contents were planned in this way: the factual: the TDIC and teaching methodologies; Conceptual: Pedagogical innovation in higher education; Procedural: research, record videos, write short texts and build a conceptual map and Attitudinal: the engagement, collaboration and participation of university students.

The setting of this class was the application: WhatsApp; the materials were in links, digital texts and videos and the Equipment: the student's own (cell phone and computer). We made all the planning available in digital text shared in the application itself.

For this choreography to be put into practice we developed 5 strategies. They would have to be described and have observations explaining how they would be used within the proposal of didactic choreography, we chose to explain each one as the deadlines were met by the players. In this way, we introduced the activities, which we call missions, as shown in the next image below:

Figure 2 - Created for the WhatsApp group

1st Mission: Systematize in two paragraphs (maximum 10 lines) what you think is pedagogical innovation in higher education (Time: 24 hours, counting from the time of posting the guiding image).
2nd Produce a video exemplifying practices that you believe are innovative and justifying why. (Posting period: 3 days.)
3rd Build a mind map with the text: Padilha, M. A. S; Beraza, Z, A,M: Souza, V.C: Didactic choreographies and innovative scenarios in higher education , Redoc: Rio de Janeiro. V.1, n1, p.115. Sep/Dec, 2017. (Period for posting: 2 days).
4th Evaluate the learning processes and strategies used using the criteria: Difficulty of the missions; Strategies used and feelings that this activity caused you (Period for posting: Using creativity and the tools that WhatsApp has available they should post the activity after 12HS and we responsible will disclose the final ranking.



We realized that the majority of the class was engaged. There were approximately twenty students. All curious and some more eager to fulfill the missions. During the process we received feedback from colleagues and adjusted some situations, such as anticipating missions that the vast majority had already met the deadline.

3 RESULTS AND DISCUSSION

The demystification of the gamification methodology was the most enjoyable moment for us. This was the perception of most of the students participating in the research. Collaborative work and engagement was highlighted by students during the evaluation of the applied proposal.

With the behavioral and affective anticipations we visualize the students' interactions in the indicated activities. There was the use of guidelines exposed at all stages: in the dissemination of the proposal, in the rules and missions.

These anticipations (behavioral and affective) were perceived in their speeches when using whatsapp. The use of this tool, which is easy to handle, enabled interactions through the use of pictures and gifs.

Considering the elements of didactic choreography (PADILHA; ZABALZA, 2016) and according to the above, the emotional and affective aspects were highlighted. We realized that elements were reflected positively in the other components of this choreography, among them the factual and conceptual ones for example.

In view of this, we show that the use of gamification can facilitate the teaching-learning process as a pedagogical tool for teachers and enable the construction of student learning by promoting an active and meaningful education for all subjects of this process.

4 CONCLUSIONS

The class held via WhatsApp pushed us towards pedagogical innovation, because it led us to create strategies with the resources we had. We realized the need to know a tool before using it and we saw how laborious it is to propose some didactic situations and not know how to manage them with mastery.

The results were encouraging and left us gratified with our research and commitment to mediate the proposed class, however, it is important to emphasize the need to expand our studies.



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