

A experiência Gamera como metodologia de game design na formação de estudantes universitários brasileiros

The Gamera experience as a game design methodology in the education of Brazilian university students

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Resumo

O foco deste artigo está no uso do design de jogos eletrônicos como metodologia de ensino-aprendizagem para estudantes universitários no Brasil. Nosso objetivo é discutir se a experiência educacional de jogos Gamera pode ser caracterizada como uma metodologia de ensino baseada em autores de Design como Imbesi (2011), Love (2002), Couto & Neves (1997) e Bomfim (1994); e autores de jogos eletrônicos, como Salen & Zimmerman (2003), Schell (2010), Schuytema (2010), Fullerton (2008) e Brathwaite & Schreiber (2009). A pesquisa foi desenvolvida por meio de sete experimentos de campo, envolvendo 175 alunos de diferentes escolas e universidades brasileiras, e os dados foram avaliados com Análise de Conteúdo. Concluímos que o Design, como campo de conhecimento tecnológico e interdisciplinar, possui princípios, como o pensamento sistêmico, que favorecem o desenvolvimento de metodologias de design de jogos, principalmente na etapa de criação e desenvolvimento, que possibilitam a produção de jogos com processos sólidos e socialmente responsáveis.

Palavras-chave: Design de jogos, Design, ensino-aprendizagem, pensamento sistêmico, responsabilidade social

Abstract

The focus of this paper is the issue of electronic game design as a teaching-learning methodology for university students in Brazil. Our aim is to discuss whether the Gamera games educational experience can be characterized as a teaching methodology based on Design authors such as Imbesi (2011), Love (2002), Couto & Neves (1997) and Bomfim (1994); and electronic games authors, such as Salen & Zimmerman (2003), Schell (2010), Schuytema (2010), Fullerton (2008) and Brathwaite & Schreiber (2009). The research conducted seven field experiments, involving 175 students from different Brazilian schools and universities, and the data were evaluated using Content Analysis. We conclude that Design, as a field of technological and interdisciplinary knowledge, has principles, such as systemic thinking, that favor the development of game design methodologies, especially in the creation and development stage, which allow for the production of games with solid and socially responsible processes.

Keywords: Game design, Design, teaching-learning, systemic thinking, social responsibility.



Introduction

For a long time, electronic games were the exclusive research of pure computational technology, owing to their production techniques. Today we can observe and investigate electronic games by many other means. We consider game design (its concepts, conflicts, mechanics, rules and procedures) as an internal moment in a larger process of design-oriented creation and development, in other words, as an area of knowledge that is multidisciplinary in its products and interdisciplinary in its processes.

The fact that game design is fundamental to the understanding of cause (method and project) and consequence (process and product) raises several questions. If we consider game design (as a specialty) to be a work interest and problem-space of professional performance after academic study, does it necessarily aim at a production, whether a product or a process? We understand that it does, because as an area of knowledge, Design is not advocated as a separate area, but in the connection of various actors. However, to highlight the link and the techniques necessary for its fulfilment, an engaged group must pay attention to a previous articulation, which we call production, that is, creation and development.

When considering different manifestations of electronic games, it is clear that media and players, in general, highlight more the audiovisual results from devices, and less their content and the quality of their interaction, which is the true source of historical advancement and media relevance. Games are still popularly thought to be very similar to movies and other more reactive and reflective audiovisual works, and therefore would be tied to similar production methods. Ignorance of the expressive versatility of games is systematically fueled by mass media, which tends to highlight the industry's commercial gains in exclusively global terms and assets, or worse, to highlight the link between violent content and the motivation of physical attacks.

Unlike early commercial development in the United States in the late 1970s, when lone electronic/computer engineers could release a big hit (BOGOST; MONTFORT, 2009), digital games are now the fruit of team efforts, whose personal and related knowledge anticipate the expected quality for the final work. Without funding and with little knowledge, developing a quality AAA game is extremely difficult for a first adventure in the industry, to say the least. If there is not enough national market to promote consumption, the fact is that finalization is the exception, not the norm. The rule is that groups become diluted, the projects they initiate are not installed on customers' computers, and boxes do not reach the shelves of large stores. Even in 2020, distribution is somewhat complicated due to international competition and financial access.

But before we want to distribute games, we must make them, and, for this argument, we looked in the literature for some answers. The most important question given the typical national mishaps is: How to do it? But, considering the experiments performed (and later discussed) in this study, the consulted literature, and the more than sufficient technical knowledge we have, another more important question is: What to do? The answer to the first question relates to the answer to the second question, and has been spread thinly over the six chapters of the author's thesis, which we reflect on in this paper.

Faced with the "typical neophyte team knowledge problem", we had the opportunity to develop and verify a game production experience, with interested agents, to identify the current

values, the recurring procedures, the roles assumed in the production, and this would enable us to gain a critical reading of a specific case of electronic game production in the national scenario: the Gamerama Experience.

Saying so, the aim of this article is to present a methodological proposal for the teaching of game production, anchored in Design and its principles, in the spite of circumstantial game production demands.

Methodology

Our first objective is to consider the terms “Design” and “games”, closing some epistemological gaps to accommodate a “game design specialty”, and looking at the need for theoretical and practical knowledge for the production of such interactive works. We also had to consider Design as an area of multidisciplinary knowledge for products and interdisciplinary knowledge for processes, with an analysis of authors in the literature, in terms of the freedom, practice and theory of Design, and the production of games for its confluence of knowledge.

In summary, we realize that the authors in the main international reference literature for the game production discipline, such as Salen & Zimmerman (2003), Schell (2010), Schuytema (2010), Fullerton (2008) and Brathwaite & Schreiber (2009), are in consonance in several respects: (1) making a game is not an activity that requires prior in-depth knowledge, since, whether overly technical or technological, any game can be predicted by simpler, less automatic instruments to a certain degree of expectation from their creators; (2) much research is needed to embrace various game possibilities; (3) its design is the result of attention to restrictive aspects; (4) a considerable amount of production is required to excel in game authoring and game development.

As the specialized literature allows us to make these findings, we take for granted the understanding of a “space” for Design as a field of action that can guarantee a continuous flow of ideas in interactive realizations and, thus, in products to be promoted according to the interests of their producers. Broadly defined, Design plays a central and catalytic role within the productive axis of games, since it meets the expectations of its actors regarding the methodological knowledge in a productive approach, whether at the moment of creation or at the moment of development. According to Chagas (2009), when Baxter (1998) considers a design methodology he “emphasizes the importance of the planning stages of management and quality control functions in the design and development process”.

Regarding the “disciplinarity” necessary for its project execution, Heckhausen (1972) offers seven criteria for the characterization of a given discipline as scientific, in order to distinguish it from the others: Material domain, Field of study, Levels of theoretical integration, Own methods, Analysis Instruments, Applications and Historical Contingencies.

So, when we consider game design as the specialty of a scientific discipline, we see a parallel with the seven criteria: first, there is the constitution of a set of objects that it deals with; second, there is a specific angle from which its material domain is delimited; third, there are fundamental concepts integrated with unifying concepts; fourth, there is learning in the transformation of presented phenomena; fifth, logical and mathematical strategies are taken into

account and models are constructed; sixth, there are innumerable instances of applicability; and seventh, there is memory and reporting.

The second objective of this paper is to discuss parameters that present the act of playing a game as a thoughtful and predicted activity. This is based on Imbesi (2011), Love (2002), Bomfim (1994) and Couto & Neves (1997), who all view Design as a central area in the critical reading on the processes involved in games. Then, from the bibliography of the game design specialty, which is mature and scientific, we refer to Salen & Zimmerman (2003), Schell (2010), Schuytema (2010), Fullerton (2008) and Brathwaite & Schreiber (2009), as these authors help us justify the view that game design is a design specialty, which can turn expectations into results. The main idea behind those words was to present the current state of maturity of game studies and to anticipate the presentation of a local scenario in terms of concepts in contexts.

Our third objective is to present the current scenario of digital game production in this country, from the perspective of the intrinsic aspects of its social and historical configuration and the consequent difficulties of attempting entrepreneurial postures in the areas of creation and development. We examine the main caveats in the reports by James Portnow (2010) and CTS Game Studies (2011), as well as the stance taken by the training centers on the international and local view of the Brazilian landscape, their mishaps and fragile “attack plans” for new producers. Considering desires and competences, we were able to check on what was concluded about the fertility of the environment in which said “future” producers would sow their seeds. Among the main problems observed in Brazil we have the excessive tax burden on startup companies and importation fees of electronic game equipment and media and, in addition, the sad perception that the Brazilian consumer does not necessarily value the local production (in the examples of critical success and sales failure Erinia, from Ignis in, 2004 and Capoeira Legends: Path to Freedom, from Donsoft Entertainment in 2009) (QUERETTE, 2012).

The central concern of this paper is the notion of attainment of knowledge, which Game Design and Design authors highlight and which Report authors deem necessary. Doing so, emphasize it as critical issue on open course methodology and objectives. Thus, considering that games are products of justified design, and considering that the national landscape is challenging and relentless with foolish gambles, we can make some assumptions: We believe that the productive meta-knowledge and emerging practical knowledge of ad hoc productive action, when backed up by an investigative approach, is a precious leverage for national production of digital games.

Our fourth objective is to use both theoretical and practical experiments in the creation and development of analog and digital games performed at the Gamerama workshops. Based on universal design principles (LIDWELL, 2003) and content organization of heuristic and empirical experiences, as well as specialized literature supported by bibliographic (GIL, 1991), exploratory (VERGARA, 2000), field (MARCONI; LAKATOS, 1996), and action-research (THIOLENT, 2008) methods, we discuss the social and cultural contexts in which the Installations took place and later report on their participation and results recorded, for future installations, with improvements. Using resources from the dynamics of distance learning courses and motivation obtained through gamification, as pointed out, these newer installations gave a strong sense of partnership in the teaching-learning relationship, which is a higher condition of interdisciplinarity, as pointed out by Fazenda (2001). The notion of reciprocity or

co-ownership would enable a dialogue to happen between the interested participants that could lead to intersubjectivity, an essential characteristic of interdisciplinarity.

We considered that the main problem was the lack of knowledge on how to apply competences and skills acquired in the process of creating and developing independent electronic games in this country. Our hypothesis was that iterative and interdisciplinary methodological activities that combine the skills and competencies of their agents provide quantitative and qualitative improvements in this situation. Thus, giving the authors of independent games opportunities for creation and development favors the realization of interactive works of entertainment. Without this the production results in slippages, and there is no dissemination and publication. Therefore, our mission was to elaborate construction dynamics for potential Brazilian producers of independent electronic games and to evaluate the results obtained for the development of productive skills and competences in the theme. Beyond that, we sought to verify whether the same iterative methodologies common to Design, as a field of development, technological knowledge and interdisciplinary vocation (COUTO; NEVES, 1997), streamline the creation and development of independent digital games.

So, as a case study, we proposed the creation, development and observation of game creation and a series of workshop events, which, as the complete set, we called the Gamera Experience. Thus, through experiments, exploratory research of similar activities, content analysis and data of field occurrences linked to the workshops, we built an understanding of the subject. The anonymity of institutions and participants were preserved in view of research ethics standards.

Gamera is, in broad strokes, an experimental, creative and iterative encounter. Its purpose is to enable the participant, student or not, to create and develop analog and/or digital entertainment projects, allowing conceptual, aesthetic, narrative, interactional and technological constructions. In addition, it presents cultural, artistic and informational principles of game design and development, and it reveals the main issues related to interactivity and motivation from the perspective of its design and expressiveness.

As stated above, the Gamera Experience was developed to cover different profiles of individuals, with the premise of promoting meetings between people that were interested in games and that came from different social segments, diverse fields of knowledge, distinct areas and varied skills and abilities.

The research universe comprises 17 Gamera Installations, and our sample is restricted to a section of this universe with eight Installations divided into three phases:

- **Phase I:** Asymmetric research with Installations 1 and 2
- **Phase II:** Exploratory research with Installations 3 to 7 in Workshock and Workshow formats.
- **Phase III:** Field Research with Installation 8 in Workplay format.

The ideal spatial assumption for each Phase I and II Installation was a large room with a minimum of tables, chairs, marker board, and a multimedia projector. Other configurations were also tested as part of the data collection about the action of the participants in different physical spaces.

The basic structure of Gamera's activities was divided into interspersed moments of theory and practice in order to achieve effective prototyped results. The main aspect of the



syllabus is its malleability. However, its basic premise comprised the following topics: basic introduction and composition; cultural history of games; ludology and narratology; systems and users; meaningful choices; interactivity and virtuality; time and space; documentation; iterative methods (waterfall and agile); prototyping; tests; idea generation; and reporting. The basic assumption of the competences to be developed focused on autonomy and collaborative work.

The most comprehensive methods used in the on-site Phases I and II installations were twofold. First, briefly, we did research on design, recognized and legitimized by authors such as Imbesi (2011), Love (2002), Couto & Neves (1997) and Bomfim (1994). These authors examine processes and design according to Design, and thus bridge theory and practice for building knowledge and improving techniques. This method proved to be behavioral and attitudinal, as well as qualitative, innovative, exploratory, generative, evaluative, focused on the broad process (BURDICK, 2003). Second, we adopted the case study, whose importance was already justified above and which directly showed to be a research strategy that involved the deep investigation of the event (in its instances). We used various forms of evidential collection in the contexts, and so it proved to be a behavioral and attitudinal method, as well as qualitative, traditional, exploratory and focused on the broad process (YIN, 2002).

In Phase III, as a Field Experiment, Gamera Workplay followed a constructivist approach with a learning activity (FREIRE, 1970), which was carried out not only with acknowledgement of the theory but also with application to challenges and practices for goal completion. Freire criticizes the transmission of didactic content in a decontextualized way, which disregards the student's reality and does not call for reflection. The Constructivist pedagogy defended by him proposes that the student build his own knowledge and may have space to reflect and question. Those reflections and questions, specifically in the context of activities, are played effectively by the current term gamification (WERBACH; HUNTER, 2012), which advocates the maintenance of responsibilities fostered by rules systems, giving the group-mediated process a "ritualistic sphere of gameplay" that normally is not observed when it comes to the subject being studied. In other words, if it is possible to teach cinema through filmmaking, literature through books, and music through songs, the parallel would be considered valid in the case of teaching gamemaking through a game.

The second Experiment was carried out in three steps: structural preparation, content modeling and progress monitoring. Using Wordpress, Google Analytics and Google Docs Spreadsheet for accounting the experience points score of the participating teams, an official Gamera Workplay group was set up on the social network Facebook, to promote the course. But during the Experiment it served as a reference for members to follow news about the progress of the rival teams.

This Installation was divided into four segments and monitored daily to see the results of the challenges and practices. Challenges were submitted by participants individually, by completing and submitting forms linked to the syllabus, and the data received by the system was forwarded to a private email account, allowing for faster tracking and recording of scores in the accounting spreadsheet.

As anticipated, the event took place asynchronously, with the active participation of individuals divided into teams by four specialty roles: the producer, the designer, the artist and the programmer (TREFRY, 2010). All participants had access to the same theoretical content,

but their responsibilities differed in practice, which added to the challenges and defined the score of the teams in relation to each other and the winning team at the end of the event.

Results

The six-year Gamera Experience was conducted with two experiments divided into three Phases and eight Installations, which were attended by 255 individuals, who produced 53 original games (once based on mediated topic and theme constraints), plus essays and variations, and who shared information on 357 topics opened in a private online group with 99 active members. There is no need in detailing here the games produced, because the goal of experience was the method and not particular results. Even so, the games were premised on simplicity of production and elegance of mechanics and aesthetics (using coins, “customized” playing cards and boards, die, paper, paperclips, wires, wood and plastic tokens, prototype-oriented softwares etc.). Using keywords and random lists to help (or shake) concepts, the generated gameplay granted the opportunity to serve as dialogical devices between the diverse materiality and the demands for its executive solutions, either analog or digital.

During the Gamera Workplay Installation, we realized that, when shaped by restrictive situations and real scenarios, interest can re-signify everyday behaviors in proactivity, consistent with market conundrums. From the standpoint of the independence of their production, electronic games are overly complex systems for lay people. Without the formation of partnerships, prior knowledge of tools and codes, and critical understanding of the paralyzing freedoms common to the environment in their vast galaxy of opportunities and promises, national production agents can only reach similar and low-yielding results with no innovation. When they understand the rules that constitute the national landscape of game creation and development, and see that the particular pursuit of knowledge and the consolidated organization of talents is a valid process, the results go beyond what was expected.

Gamera was a game production teaching experience with interested students, and as its Installations occurred, we were able to identify common values such as partnership, curiosity, ownership and responsibility. Also, we could identify recurring procedures such as context perception, repertoire relationship, trial and error, and engagement. Leaders assumed roles in production, as did subordinates, according to their shared responsibilities in the projects. These were responsibilities for the general realization, for the design of rules and procedures, for the audiovisual aesthetics, and for the technological implementation (the producer, the designer, the artist and the programmer, respectively).

For the teaching of design and Design (of the verb and the name), Gamera, as an experience, proved itself to be a model of validation of methods and principles. This model, based on a theme considered of extreme social, governmental, commercial and academic interest, synthesizes in each meeting the initial presentations of concept and context, planning, exploration and implications, prototyping, development, testing and conclusion of results. We live as technoholics, in an epistemophilic world, which makes it imperative to infer and deduce what should be learned and how it should be learned. In their structure, as they change and modify institutions, games provide their players with the power of choice and acceptance of its consequences.

For the teaching of game design especially, Gameraama was important since it served as a metric for various approaches, methods and tools. The use of resources such as gamification techniques, the use of *ad hoc* restrictions, and the use and recognition of “quest patterns” are methodological gains for the game design specialty with its multidisciplinary and interdisciplinary approaches. As a specialty, game design is stocked with the same scientific, philosophical, and technical discussions as Design and, therefore, may provide variables and parameters for these discussions to progress.

For the gaming market in Brazil, Gameraama provided a preliminary experiment to solve part of the problems identified by experts: the lack of knowledge about knowledge, especially of practical knowledge which theoretical knowledge should nurture, in turn, to perfect itself. Without such meta-knowledge, we proceed only by knowing the “what” of *modus operandi*, but we do not advance in the wisdom of the “how” of *modus faciendi*. In this cyclical endeavor, with Gameraama we seek to point the way towards the horizon of the local entertainment industry, its mysteries, its dangers and its rewards.

The importance of the relationship between the knowledge of the “what,” in our case, games, and knowledge of the “how,” in our case, their production, can be understood when we treat Gameraama as a model of meta-knowledge (knowledge of knowledge) construction, as Paquette states (1999, p. 1) “Meta-knowledge is the knowledge of knowledge that eventually leads an individual to improve the way he learns, thereby facilitating the transfer of domain operations from a known application to new ones, and finally allowing himself to learn from more autonomous way”.

Conclusions

The aim of this study was to develop the experiment and verify whether the Gameraama Experience could constitute a methodological proposal for the teaching of game production, anchored in Design and its principles, in the scenario of local electronic game production. We can say this objective was fulfilled. There are some reservations regarding the balance of quality and quantity of results as electronic games were made throughout the Installations. However, the program content was received and progressively reconfigured with the participants, and the practices they developed in compliance with decision-making strategies were important in determining, from experience, its relevance as a seed for similar organizations, based on the *modus faciendi*, and above all, on the *modus operandi* of Gameraama.

We believe that it is important to have the opportunity not only to create and develop games but also to carry out the undertaking in an articulated set of entrepreneurial and innovative skills for the future.

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References

- BAXTER, M.. **Projeto de Produto**. São Paulo: Edgar-Blucher, 1998.
- BOGOST, I.; MONTFORT, N.. **Racing the Beam: The Atari Video Computer System**. Cambridge: MIT Press, 2009.
- BOMFIM, G.. Sobre a possibilidade de uma teoria do design. In: **Estudos em Design**, Rio de Janeiro: Associação de Ensino de Design do Brasil, v. 2, n. 2, nov. 1994. p. 15-22.
- BRATHWAITE, B.; SCHREIBER, I.. **Challenges for Game Designers**. Boston: Cengage Learning, 2009.
- BURDICK, A.. Design (As) Research. In: **Design Research: Methods and Perspectives**. Cambridge: MIT Press, 2003.
- CHAGAS, M. G.. **A inserção do Designer de Games na indústria brasileira de jogos eletrônicos**. Thesis (Design Doctorate), Artes & Design Department, Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, 2009.
- COUTO, R. M. S.; NEVES, M. A. M.. **Movimento interdisciplinar de designers brasileiros em busca de educação avançada**. Thesis (Education Doctorate), Education Department. Pontifícia Universidade Católica do Rio de Janeiro. Rio de Janeiro, 1997.
- CTS GAME STUDIES. **Relatório de Investigação Preliminar: O Mercado Brasileiro de Jogos Eletrônicos**, sep. 2011. Retrieved from ctsgamestudies.files.wordpress.com/2011/09/relatorio-preliminar-sobre-o-mercado-brasileiro-de-jogos1.pdf.
- FAZENDA, I. C.. **Dicionário em construção: interdisciplinaridade**. São Paulo: Cortez, 2001.
- FREIRE, P.. **Pedagogia do Oprimido**. São Paulo: Paz e Terra, 1970.
- FULLERTON, T.. **Game Design Workshop**. Massachusetts: Morgan Kaufmann, 2008.
- GIL, A. C.. **Como elaborar projetos de pesquisa**. 3 ed., São Paulo: Atlas, 1991.
- HECKHAUSEN, H.. Discipline et interdisciplinarité, In: CERI (eds.). **L'interdisciplinarité. Problèmes d'enseignement et de recherche dans les Universités**, Paris: UNESCO/OCDE, 1972, p. 83-90.
- IMBESI, L.. An Undisciplined Discipline: Design operating along the borders. In: **Proceedings of The Endless End - 9th European Academy of Design Conference**. FBAUP, 2011, p. 271-283.
- LIDWELL, W. *et al.*, **Universal Principles of Design**. Minneapolis: Rockport, 2003.
- LOVE, T.. Constructing a coherent cross-disciplinary body of theory about designing and designs: some philosophical issues. In: **Design Studies**, n. 23, Massachusetts: Elsevier, 2002, p. 345-361.
- MARCONI, M. D. A; LAKATOS, E. M.. **Técnicas de pesquisa: planejamento e execução de pesquisas, amostragens e técnicas de pesquisas, elaboração, análise e interpretação de dados**, 3 ed., São Paulo: Atlas, 1996.
- PAQUETTE, G.. Meta-knowledge Representation for Learning Scenarios Engineering. In: **Proceedings of AI-Ed'99 in AI and Education - Open learning environments**. Amsterdam: IOS Press, 1999.
- PORTNOW, J.. Analysis: Inside Brazil's Video Game Ecosystem. **Gamasutra**, 20 jan. 2010. Retrieved from www.gamasutra.com/view/news/117589/Analysis_Inside_Brazils_Video_Game_Ecosystem.php#.UPqt4B3O1Cs.



QUERETTE, E. *et alii.*, Políticas Públicas para a Indústria de Games: uma agenda para o Brasil, **Proceedings SBGames 2012**, 2012. Retrieved from sbgames.org/sbgames2012/proceedings/papers/industria/Industria_3.pdf.

SALEN, K.; ZIMMERMAN, E.. **Rules of Play**. Cambridge: MIT Press, 2003.

SCHELL, J.. **A arte de Game Design**. Rio de Janeiro: Elsevier, 2010.

SCHUYTEMA, P.. **Design de Games: uma abordagem prática**. Stanford: Cengage Learning, 2010.

THIOLLENT, M.. **Metodologia da Pesquisa-Ação**. São Paulo: Cortez, 2008.

TREFRY, G.. **Casual Game Design**, Massachusetts: Elsevier, 2010.

VERGARA, S. C.. **Projetos e relatórios de pesquisa em administração**. 3 ed., São Paulo: Atlas, 2000.

WERBACH, K.; HUNTER, D.. **For the Win: how game thinking can revolutionize your business**. Pennsylvania: Wharton Digital Press, 2012.

YIN, R. K.. **Case Study Research: Design and Methods**. Thousand Oaks, CA: Sage Publications, 2002.

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