1 INTRODUCTION

The course ‘The game and the city’ was offered during three consecutive semesters as an elective course to the undergraduate students of Architecture and Urbanism at the Federal University of Minas Gerais. The course was proposed as part of a research on the use of games as a participatory tool in the context of spatial production. Currently, there are a growing number of initiatives that use gamification as a resource to motivate people and increase civic engagement in matters of public interest. However, the use of this resource lacks a critical reflection in the same depth with which the participation is currently debated.

Taking into account the extensive debate about participation produced so far, we start from the challenge posed by Jeremy Till regarding the need to move the architectural participation from a placatory participation towards a transformative participation (Till, 2005). In this context, this article reflects on the educational and formative aspects involved in participation, having as a horizon the intellectual emancipation with regard to spatial issues. The games produced in the context of the course will be considered as a space for dialogue that aims to foster the spatial learning and qualify the participants for a transformative spatial practice. The experience of the course ‘The game and the city’ will be taken to discuss the spatial learning in two instances: one concerning the formation of the architect and planner as a producer of games; And the other, related to the spatial learning involved in the act of playing and therefore, outside the school boundaries.

Regarding the education of the architect and planner, the article questions what displacements might be possible to the practice of architecture and planning when shifting the focus of education – conventionally concerned in finding solutions to spatial problems through the practice of project – to another perspective, based on the questioning of spatial issues as means to structuring an open process for the collective construction of spatial knowledge. From a Lefebvrian understanding of the production of space (Lefebvre, 1973, 1991), the aim of the course is to approximate the practice of producing games to the concept of “spatial agency” developed by Nishat Awan, Tatjana Schneider and Jeremy Till (2011).

The second level of discussion, takes all the games produced by the students throughout the semester to discuss the spatial learning provided by the act of playing. Therefore, it brings the thought of educators such as Paulo Freire and Ivan Illich and also the philosopher Jacques Rancière to approach the educational process provided by the games from the perspective of intellectual emancipation. Then the games produced by the students are grouped in a classification that allows discussing the formative process that is established in the act of playing. The principle of equality of intelligence brought by the political thought of Jacques Rancière (2002), confers a political dimension to the game, that comes to be understood as the activator of a process of intellectual emancipation that qualifies the citizens to participate actively in the everyday production of their space and the city.
2 THE GAME AND THE CITY: DISPLACEMENTS TO THE SPATIAL PRACTICE

The theoretical assumptions that support the course will be presented in order to enable a clearer formulation of its objectives and the contextualization of the games that were produced by the students.

The course is based on the Lefebvrian perspective for the production of space. In the statement that “The (social) space is a (social) product” (1991, p.26), Henri Lefebvre expands the architectural and planning field of interest to the scope of social relations and the modes of production involved in the process of producing space. When the understanding of a space embedded in social relations is brought to the field of spatial practices, Lefebvrian theory offers a critical counterpoint to the mode of action of architects and planners whose conventionally consider the space as a matter to be transformed into a product by means of technical intervention. In this model, the technically produced space becomes a product, an object to be negotiated in the form of a commodity. Beyond this notion of space as an object, the Lefebvrian concept of spatial production is amplified by the different ways in which Lefebvre understands the meaning of producing.

The double meaning of the term stems from the fact that ‘men’ in society produce sometimes things (products), sometimes oeuvres (everything else). Things are enumerated, counted, appreciated in money, exchanged. And the oeuvres? Hardly. To produce, in a broad sense, is to produce science, art, relations between human beings, time and space, events, history, institutions, society itself, the city, the state, in a word: everything. The production of products is impersonal; the production of oeuvres can not be understood if it does not depend on subjects. (LEFEBVRE, 1973, pp. 79-80)

This understanding of space as an object, adopted by the conventional practice of architecture and planning, claims for the professional field the monopoly of spatial knowledge. Issues relating to the everyday life of cities, such as mobility, public spaces, housing policies, or possible ways of occupying and inhabiting the city, are removed from the public debate. The alienation of everyday spatial practice in the hands of a few, supposedly qualified to decide how people should live in the city, collaborates with the reproduction of social relations of domination and the processes of exclusion and social inequality. As a product, the space is conditioned by the market. The space-object therefore tends to be a response to demands that do not always coincide with the interests of people for better living conditions in the city.

Another approach of spatial practice claims for the social role of the space through a professional practice understood as praxis towards the transformation of social reality. Some of these practices were brought together by Awan, Schneider and Till in an attempt to qualify as “spatial agency” (2011) a spatial practice that is closer to the understanding of architecture and planning as an oeuvre rather than a product. This paradigm shift is brought by the authors in Bruno Latour’s terms to characterize a change in the understanding of architecture as a ‘matter of fact’ to architecture as a ‘matter of interest’ (Awan et al, 2011).

As matters of fact, buildings can be subjected to rules and methods, and they can be treated as objects on their own terms. As matters of concern, they enter into socially embedded networks, in which the consequences of architecture are of much more significance than the objects of architecture. (Spatial Agency, 2016)

The spatial agency seeks to overcome the model of action that is justified in the technical-scientific authority to build networks of collaboration in which architects and non-architects seek to collectively construct another way of producing space. The means of spatial agency action range from forms of political activism to the production of pedagogical tools to empower people to work collaboratively for the transformation of their space.

The course 'The game and the city' aims to establish games as a mode of spatial agency, contrasting to the educational model based on Project practice. As Till points out, conventional education understands design as an answer to spatial questions. "In education, the architectural study is held up as an exemplar of problem-based learning, the space where students are set to 'problem' and through the creative, and reflective, act of design as a 'solution' (Till, 2005). This may even work at scholar education, however, when confronted with reality, this logic ultimately constrains the role of architects and planners since the problems to be solved are formulated in terms of real state. In these terms, inevitably, the answer will always be that of the space-object."
In opposition to this logic of the project, the course proposes the production of games as a problematizing action. In order to construct a game, students are challenged to identify tension nodes, present in the socio-spatial reality, not as problems to be solved by the game, but rather as elements that structure a dynamic that enable an environment of negotiation and knowledge sharing. Thus, the role of these games are not to solve concrete impasses, but rather to thematize dissensus, to problematize alternatives and to construct an understanding about what would be the collective interest of the stakeholders. This also aims to broaden the perspectives of students to other possibilities of professional role beyond the heteronomous limits of conventional practice.

2.1 THE GAMES PRODUCED IN THE COURSE

The games produced by the students, as the studio practice in the three semesters in which the course was offered, will be will be presented in summary form. It is worth clarifying that this study does not aim at the individual analysis of each game, but of the whole of works. Therefore, we are not dedicated to explain the elements and dynamics used in each game, but rather its context and objectives. Neither is it intended to conduct an individual evaluation of the work. Thus, the fragilities and contradictions that surely exist in these games are left out, even understanding the relevance that this recognition of controversies could have for the methodological debate of a course based on the practice of producing games. It is not an omission, but rather a clear option to establish the object of the analysis in the whole of the produced games and not in the particularity of each. In this sense, it was decided to keep the totality of the works presented, although there is considerable variation regarding quality, no work was left out. It is not a matter of choosing the best examples; the twelve games presented here constitute the totality of the production over the three course terms. These are the games:

Occupy: This is a board game produced to assist dwellers of an urban occupation in the early stages of the process of producing their space. The aim of the game is to promote a reflection on other possibilities for spatial organization, as an alternative to the reproduction of spatial models of the formal city.

The cards of the game simulate everyday situations experienced in an urban occupation and the tiles allow players to experiment many different spatial configurations over the board.

What would you like to do in the school of your dreams? The game was produced in the context of the construction of a new building for the School of Architecture and Design (EAD) of the Federal University of Minas Gerais (UFMG). The change of EAD building, currently located in a central district to the university campus in the outskirts of the city, had previously been decided through a public consultation to the academic community. The proposal consists of an interface that aims to raise the demands and desires of students and staff in order to inform the design of the new building.

Treasure Hunt: The game seeks to reconfigure, even temporarily, the relationship of the residents of the Calafate neighborhood, located in the city of Belo Horizonte, with their daily space. Treasure Hunt is a session published in a local newspaper produced by the students under the name of ‘Speak Calafate’. The idea is that in each issue a spatial puzzle would be published to be unraveled by the locals. The first to unravel the riddle is awarded with a voucher for purchases or services in the neighborhood commerce.

Mobiligame: It is a board game that aims to promote the awareness of the players about the implications that the modes of displacement have on the quality of life of people living in a city. The game seeks to highlight the responsibility of each citizen as part of the collective that shapes urban mobility scenario in the city. The game simulates some everyday situations for which players should move around the city-board taking into account the effects of their individual choices as well as those of other players, over the city.

Manzo Ngunzu Kaiango: also known as Manzo Game, it was designed as a translation tool between the quilombola community and the team of architects involved in the project to recover its candomblé yard. The game seeks to relate the spatial and symbolic configuration of the candomblé yard to the sacred meaning of each of their deities (Orixás).

Occupy the Allotment: The game proposes a reflection on the logic of private property through an evaluation of the effects of individual actions in the city space. The game problematizes issues such as
population density, road overload and real estate speculation as a counterpoint to actions that favor the collective use of the city as the construction of public facilities, the provision of private services of daily use and actions of urban gentleness.

#Movimenta: It is a card game that intends to introduce players to the guidelines of the main social movements in the city of Belo Horizonte. The game seeks to identify issues of the city's daily life, which are raised by the players, with the possibilities of action by each of the social movements.

Geopolitics: The Game problematizes spatial segregation in spaces of public use, whether privately owned or not. The debate promoted by the situations posed by the cards questions the spatial features that restrict or discourage the use of certain spaces by certain groups, whether these are physical elements or not. The objective is to denaturalize the barriers that are configured in the socio-spatial plane.

River: The game seeks to make players aware of how the production of the city's space affects the quality of water resources. Through a dynamic of individual actions with collective consequences, the game seeks to illustrate the responsibilities and implications of the initiatives of various agents (citizen, real estate entrepreneur and public power) over urban rivers as a resource not only for supply, but also for the conformation of urban landscape.

Glaura’s Game: The game aims to trigger a reflection amongst residents of the village of Glaura about the implications of the transformation that have been taking place in the city due to the implementation of a weekend houses condominium on the outskirts of the village. The aim is to denaturalize the service bond relationships between the village residents and the new landowners that also have implications in a process of gentrification of the city center and, thus, to problematize the (in) sustainability of the growth model guided by real estate interests.

Opportunity: This game proposes a re-signification for the notion of ‘opportunity’ expressed in the real estate ads found throughout the city. Therefore, it takes the territory of the city as the game board. The city as a gaming opportunity contrasts with the idea of the city as a real estate market.

Tower of Memory: The game aims to rescue the memories and experiences of the residents of the village of Glaura and, from these, encourage the idealization of possibilities for the future regarding the relationship between the community and the places of the village. The structure of the game allows the memories and imaginaries to articulate spontaneously in the construction of narratives about the place. The game aims to act as a storytelling activator, as well as reinforcing the affective bonds between the community and their space.

3 GAMES AND INTELLECTUAL EMANCIPATION: EDUCATION BEYOND THE SCHOOL

In addition to the previous reflection, which points to the displacement in the proposal of an studio practice based in the production of games instead of producing projects, we intend to add another reflection, which goes beyond the limits of the school and the practice of students as game producers. The games designed by students act as tools for dialogue with society and, as such, Work towards structuring a debate that results in the collective construction of spatial knowledge. This expanded scale of education goes beyond the limits of the school in that it transfers to the city and the collective the object of learning.

The proposal of a spatial education available to society through games is aligned with the thought of Illich, whose criticism of school education intends to show that learning process does not depend of any kind of teaching or institutions that constrain and delimit the knowledge. Illich is in favor of processes of self-learning, supported in intentional social relations, but in a fluid and informal intentionality. In his project of “deschooling society” the author introduces the concept of learning networks that consist of “educational networks that increase the opportunity of each one to transform each moment of his life into another one of learning, sharing and of interest” (Illich, 1985, p.14).

It is in this sense that we intend to discuss spatial education beyond the exclusive interest in the professional training of the architect and planner. The games produced in the course were made to be played out of the school environment. Its goal is to articulate the participation of society in a collective
debate about the space produced in the community context or in the daily life of the city. The games intend to act as the educational networks proposed by Illich, having as a horizon the intellectual emancipation of the players with regard to the production of their collective space.

It is important to clarify that it is not about taking the game as a tool for the transmission of technical knowledge. It is necessary to differentiate the process of formation and subjectivation that occurs through the collective experience in the act of playing, from what Freire called "banking education" (1988). In Rancière's terms, it is necessary to differentiate "the emancipation of the men" from "instruction of the people" (Rancière, 2002). Rancière proposes a reflection on intellectual emancipation based on the experience of Joseph Jacotot, the educator, who in the nineteenth century developed a method for universal education in which he assumes the equality of the intelligences between master and disciple as a starting point for an emancipatory education (Rancière, 2002). Such a method is opposed to the conventional model of education, which aims to reduce the inequality between the knowledge of the one who teaches and that of those who learn. In this regard Rancière's thought coincides with that of Freire insofar as both understand that in the emancipatory process the man must be the subject of his own education. While Freire states that "to educate is not to transfer knowledge" (1996), Rancière contrasts Jacotot's emancipatory method with the "explanatory method" (2002) adopted in the conventional education system. Thus, a process similar to what Freire refers to as "banking education" (1988) is understood as "roughness" by Rancière (2002).

In an emancipatory game the end is not to transfer knowledge, but rather to establish a common vocabulary, which take account of the dissensus and the plurality of experiences brought by each player. Thus, the principle of equality is present in two ways: The first recognizes that any person, irrespective of his or her professional background or level of education, has a spatial experience to be considered, and the second is that which equals all participants as players. In this regard the learning process provided by the game contemplates people with the most diverse backgrounds, taking as a starting point what all of then has in common: everyone knows live and experience spaces and the city in their everyday needs. It is not intended, however, to claim that the spatial knowledge of architects and planners is equivalent to that of lay citizens, it is not a question of comparing these two spheres, but of constructing a common vocabulary, so that each one can develop and learn through the contact of the other's experience.

From the education point of view, we can understand that the goal of the games produced by the students is aligned to Illich's proposal on the intentional creation of social networks. The games are expected to act as a platform for self-education, in terms of spatial knowledge, y means of the contact with the collectivity. In this respect, the game is only the activator of a transformative process. One should not seek immediate transformation through play. The game is emancipatory not because it has the potential to transform the real, but precisely because, as a game, it can displace hierarchies, hegemonies and modes of oppression, opening cracks in the commonplace, in the naturalized certainties, and thereby giving rise to uncertainty, and to dissensus. In this sense playing is also a political action.

3.1 QUALIFYING THE COLLECTIVE LEARNING

It is therefore in the light of the notions of an emancipatory education, that we intend to resume the analysis of the games produced by the students in the course 'The Game and the city'. In order to do so, the previously presented games were organized in four groups, in order to facilitate the analysis that will be followed regarding the spatial learning activated by the action of playing. As a criterion for grouping, it was sought to identify in the general objective of each game a field of interests whereby some of then converge towards a common end. These groups of interest were thus named as follow: Tools for dialogue; Essays for autonomy in everyday practice; Games of estrangement and denaturalization, and; Building ties between players and the city.

These categories allow to approach in a same group games referring to different contexts and scales: some circumscribed to a specific location and others that takes the city as a whole; Some focusing on certain themes and others that relate the diversity of the aspects that characterize the daily space. The naming of the groups allows to bring to light issues implicit in the games that can only be perceived behind the surface of their themes or scales. The attempt to group the games by converging interests, does not intend to constrain them into rigid categories. The characteristics that give names to the groups are often present in games of another group. The names chosen for thematizing the groups are referred to spatial
agency features that are dominant in each game, but do not exclude other possibilities of reading or classification.

<table>
<thead>
<tr>
<th>Tools for dialogue</th>
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<tr>
<td>What would you like to do in the school of your dreams?</td>
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<td>Essays for autonomy in everyday practice</td>
<td>Mobiligame</td>
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<td>River</td>
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<td>Occupy</td>
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<td>Games of encountralization</td>
<td>Geopolitics</td>
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<td>Glaura’s Game</td>
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<td># Movement</td>
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<td>Building ties between players and the city</td>
<td>Opportunity</td>
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<td>Treasure Hunt</td>
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<td>Tower of Memory</td>
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Table (SEQ Table 1 ARABIC) - The games grouped by converging interests

The games of the first group, classified as 'tools for dialogue', have as common goal to provide communication channels to guide the exchange of information for the collective construction of knowledge. For Freire, the opposite of transferring knowledge would be a process that instigates the interlocutor so that "as cognoscent subject, he becomes capable of understanding and communicating the intelligible" (Freire, 1996, p.45). In this sense, the role of the games of this group is to activate the dialogue that can be qualified to the extent that it enables the contact to the diversity of experience of the players. In the Manzo game, dialogue is an effort whereby a translation of the symbolic imaginary of candomblé enables it to be discussed in spatial terms; whilst the interface to collect the wishes for the new building to the School of Architecture plays toward instigating a public debate. In this case, the inputs brought by the user community are developing as they are collectively discussed. In both cases the dialogical effort has more to do with the construction of a common vocabulary than with consensus building.

In this group, both games recognize listening as a knowledge-forming process. For Freire to listen means "the permanent disposition from the subject who listens to be open to the speech of the other, to the gesture of the other, to the differences of the other. This does not mean, of course, that listening demands from those who actually listen to be reduced to the speech of the other. This would not be listening, but rather self-annulment" (Freire, 1996, p.45). The idea of listening as a "permanent disposition" in Freire coincides with the idea of play from an anthropological and socio-cultural perspective in which "the act of playing can be understood as a disposition rather than an activity or behavior" (Glenn et al, 2013). Besides meaning an inclination or willingness, the term disposition adds the negative prefix ‘dis’ to the word ‘position’, also indicating the absence of a prior position. Listening as a disposition becomes a precondition to a taking stand process and therefore to the constitution of subjectivities. For Rancière, political subjectivities are constituted by means of dissensus, understood as a rupture with the status quo. For Freire, it is through listening that it becomes possible to disagree. "True listening does not diminish in me, in anything, the ability to exercise the right to disagree, to oppose, to position myself. On the contrary, it is listening well that I prepare myself to better take a stand or to better situate myself from the ideas' point of view"(Freire, 1996, p.45). In the games featured as ‘tools for dialogue’, listening does not represent the reduction of the listener to the other’s point of view, but rather a structure whereby players can formulate their own thinking.

Another concept dear to Freire is the idea of autonomy present in the second group, named as ‘Essays for autonomy in everyday practice’. The four games of this group have in common the role of providing a structure in which the player is asked to make decisions at the same time they are confronted by the consequences of his choices. For Freire autonomy is not something given a priori. "No one is autonomous first to decide later. The autonomy will be constituted in the experience of several, many decisions that are being taken "(1996, p. 41). The games of this group are based on the simulation of a certain urban context where the players are invited to act individually without losing the perspective of the whole. There the players have the opportunity to evaluate their everyday practice in the extended field of collective space. Three games have the city as a field of action whereby the balance between individual actions, and the collective interest for the quality of space, can be understood as a kind of urban ecology. The Mobiligame places the player as co-responsible for the quality of urban mobility; the River game intends to make
explicit the relation between the way of occupying the city and the available water resources; and the Occupy the Allotment highlights the dispute between individual and collective interests in view of the private property’s logic. The Occupy game, on the other hand, allows the residents of an urban occupation in an initial stage of construction to evaluate the different possibilities of spatial configuration. The formative proposal that crosses the four games of this group works in the direction to find a balance between the individual autonomy and the collective space.

The games of the third group, ‘Games of estrangement and denaturalization’ are joined by the common goal of destabilizing the consensus around the hegemonic ways of producing and using the collective space of the city. Based on a dynamic of argumentation and sharing of experiences, these games seek to provoke the estrangement of situations of inequality and spatial segregation that are naturalized in the city space. Geopolitics questions the social barriers that manifest through space, the Glaura’s Game proposes a prospective exercise by demanding players to imagine the kind of social relation that can be established in face of the real estate development that are being implanted in the neighborhood. And #Movimenta tries to relate conflictive situations in the city with the agenda of the social movements. These games seek to decolonize the spatial imaginary by means of denaturalizing social and spatial embedded practices that are consensually accepted as the only possibilities. The games of this group are based on dissensus as a process of de-identification with the status quo and also as a possibility for the formulation of other spatial imaginaries, able to considerate the range of stakeholders and plural identities that inhabit the cities.

The fourth and last group, named under the goal of ‘Building ties between players and the city’, brings together games that seek to activate other relations with the space. They seek to trigger the affective dimension of space as a form of resistance to the logic of the city as a product. Opportunity and Treasure Hunt - in a situationist way - take the real city as the board where an action, that involves the displacement of the body and the senses, take place. Both explore the playful nature of space in its materiality. The Tower of Memory aims to rescue the affective bonds with the space by means of the construction of a collective memory of the city. In these games, participating means an intense experience of life in the city, enabled by the joyness of meeting the other.

4 CONCLUSIONS

Although grounded through an experience in the education of architects and planners, the above discussion is also an attempt to rescue the transformative dimension of participation. However, it is necessary to relativize the ability of games to change reality. It is not possible to state a direct relation between the participation by the game and the transformation of the socio-spatial reality. There is some possibilities for empowerment by the games, but one can not demand more than the games can offer: the transformation of socio-spatial reality is constantly crossed by multiple asymmetries, inequalities and even the difficulty of cultivating participatory and collaborative skills.

What the games are expected for is the role of a trigger to a formative process that seeks to collectively qualify the spatial knowledge of citizens. When referring to the education by means of games as an emancipatory practice, what is at stake is not any specific content. It is not intend to be an alternative method for qualitative research or a strategy of approximation to the vernacular knowledge. It does not mean that these can not happen by the game. But the great contribution, which we intend to emphasize in this study, is related to the process of learning how to learn together.

With regard to the education of the architect and planner, the substitution of the practice of producing projects by the practice of producing games proposed by the course ‘The game and the city’, enabled the displacement of the normative and technical education to the field of a spatial practice. This displacement of education beyond the boundaries of the school is advocated by Illich, who blames formal education for the main misconception of our time: that one that transforms basic needs into demands for scientifically produced goods.

The student is thus ‘schooled’ to confuse teaching with learning, obtaining degrees with education, diploma with competence, fluency in speaking with the ability to say something new. Their imagination is ‘schooled’ in accepting service rather than value. It wrongly identifies health care with medical treatment, improvement of community life with social assistance, security with police protection, national security with military apparatus, productive work with unfair competition. (Illich 1985, p.18)
As far as the practice of architecture and urbanism is concerned, this misconception is represented by the commodification of space. Producing games as processes instead of producing space-object, reestablish the Lefebvrian sense of production to the oeuvres rather than products. In this sense, the practice of producing games points to an opening towards the reinvention of spatial practice and the overcoming of the heteronomous order imposed by the surplus value of space.

BIBLIOGRAPHIC REFERENCES


