



Overcoming GBL Teaching Barriers: The Preliminary Stages of a Teacher Action Research

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Abstract

Game-based learning (GBL) is a motivating and engaging approach to foster students' learning [21]. However, teachers complain that there are many social-organizational barriers to face when integrating games in didactics, which need to be overcome with training [12]. Hence, Ricerca-Formazione (Teacher Action-Research) [4], is chosen as the methodological pathway to foster meaningful research and professional development processes. A community of primary school teachers in the Lecco province in Italy asked to be trained to help them use games in their teaching practice. Throughout 5 Professional development sessions in 2024 and early 2025, teachers practiced instructional design, game analysis, gaming, game modding, and had group discussions for debriefing. Thereby, these teachers defined lack of colleagues' collaboration, due to their traditional teaching style, as the most common and challenging obstacle for game integration in their school contexts. To understand this issue's dynamics, 3 in-training teachers played a theatre game [5], which consisted in the staging of a discussion among colleagues who disagree on game use. The scene was then analysed together with other in-training teachers to look into the portrayed issue, considering different perspectives. Thus, they devised solutions to overcome these challenges and they staged them as well to have a sense of their potential. The second performance was also analysed to get a sense of the actual impact of the designed changes. The overall thematic analysis [9] of the transcribed scripts of the role-plays and of all the focus groups shows that colleagues' resistance toward game classroom use shouldn't be belittled but understood. In fact, teachers with a propensity for traditional didactics are often reluctant to game integration, because of their emotional and pedagogical insecurity. Therefore, teachers who want to promote GBL need to find an accommodating way to convince colleagues of the potential of game use, taking into account the issues all teachers bring forward. In conclusion, game-based teacher training strategies such as role-plays and theatre games allow for a better understanding of teachers' issues and how to address them, as they highlight relational and organizational complexities.

Keywords: Professional Development, Game-based learning, Teacher Action-research, Theatre games, Analog games

1. Introduction

Game-Based Learning (GBL) is a pedagogical approach that leverages the affordances of games to facilitate a learning experience which integrates gaming with other specific activities to attain defined learning outcomes [21]. At its core, GBL relies on the active and focused investment of effort in a game environment, encouraging students to learn via experience and direct participation, rather than through traditional methods. From a socio-constructivist perspective, games are viewed as socially situated systems where knowledge is not merely transferred, but is co-constructed through intersubjective and relational processes.

This approach identifies games as meaningful ways to foster learning in their Zone of Proximal Development [30], providing a safe Magic Circle [17], where the rules and structures of the game act as a scaffold for exploring outcomes beyond one's imagined current abilities. According to Boller and Kapp [7] a game is defined as an activity that consists of a goal and of rules that guide how that goal is achieved. Thus, players have to face a challenge which requires interactivity with other players or the game environment. Accordingly with the game mechanisms, the game feeds back information related to the physical state changes of the game. This feedback offers immediate cues regarding the players' performance and, so, it affects them cognitively and emotionally. Hence, games function as a nexus of practice, facilitating situated learning, since skill development is inextricably linked to social interaction and cultural context [23].

Lave and Wenger's theory of Community of Practice is the primary theory used in this study to frame the learning processes [18], as it is centred on situated learning and legitimate peripheral participation. Thereby, it provides a robust framework for social knowledge acquisition for what concerns student

learning and teacher professional development. However, critiques suggest that without specific intervention, this model can mirror what Freire defines "banking education", which prioritizes the community's status quo over individual agency [15][16]. Therefore, to avoid this risk, this study requires the integration of the Community of Practice Theory with some principles of Freire's Liberation Pedagogy. This implies that being in a community is to be seen as something that evolves into a liberatory praxis where learners are active subjects with agency to change the system they are in. This theoretical blending is possible because both frameworks share a common intellectual heritage connected to Marxist analytical perspectives [16], specifically those inherited from the works of Vygotsky [29]. This synthesis facilitates the creation of what can be defined as a Community of Thought [19], which shifts the focus from mere shared tasks to the critical reflection and understanding of intentions, underlying shared practices. This ensures reciprocity and dialogicity, empowering participants to intentionally transform both themselves and their social reality.

Having defined this blended framework, the issue that is hereby investigated is how teachers can integrate games into their didactics. Studies stress that for this to happen teachers need to develop a set of competencies and, especially, attitudes [23]. First and foremost, Game Literacy is required, because teachers need to understand games and need to know many games to choose from [7]. Moreover, teachers need to develop a Lusory Attitude [3][28], which means that they need to be imaginative, flexible, resourceful, resilient and reflective. Moreover, teachers need to develop a set of pedagogical, creative, technical and collaborative competencies [20]. One particularly relevant pedagogical skill, that is often lacking, because it implies a challenging task, is the aligning of game and learning goals [1]. At the same time, teachers need to adopt games as heuristic devices that foster students' co-construction, exploration, expression and sharing [25]. Thus, teachers need to design their instruction so that they get their students to inquire, communicate, co-construct knowledge and try different forms of expression that make sure the game's learning potential is brought out [14].

Mastering all these instructional design practices requires teacher training processes that are recursively situated and that guarantee that what is learnt can be contextualized in the teachers' school contexts [31]. This becomes necessary because teachers who try implementing GBL often face many different types of barriers. Therefore, GBL Professional Development (PD) needs to address these barriers, fostering teachers' understanding of how to overcome them. Moreover, to comprehend the potential practical issues that can be encountered, these PD experiences need to be hands-on and collaborative, by promoting gaming sessions, game analysis and game design alongside peer discussions [10]. Thus, these PD programmes can reinforce the potential value of games for learning, because also teachers learn by playing.

There are many different types of games that are used for GBL, both for student learning and teachers' PD. Digital games have undoubtedly become the most popular in the last 20 and more years [21], but there have been many studies looking into the use of analogue games for learning [1][23]. Among these analogue games, board games are most recurrently adopted, because they are effective for promoting the development of many cognitive, social and emotional skills. However, theatre games and role-playing games are also promoted, because they integrate narrative, collaboration, and character development into a comprehensive educational experience [5][22]. Role-playing games are used, especially for PD, because they help analyse and deal with multiple realistic workplace challenges in a compressed period [21]. More specifically, Boal's theatre games treat theatrical language as the most essential human language, that is meant to be accessible both for professional actors and "non-actors". to foster active problem solving [5]. Indeed, one of these forms of play, defined as Forum Theatre, consists in a theatrical game where a problem is staged in an unsolved form. The members in the audience, acting as "spect-actors", are invited to think of different solutions to suggest them or to stage them personally, together with the other actors, even taking the place of the protagonist, so as to enact the imagined solution. Hence, the stage functions as a rehearsal for real-life action, allowing participants to acquire knowledge and tactics to break cycles of oppression in reality, as it is advocated in Liberation Pedagogy and in the Theatre of the Oppressed [6][15].

However, it is important to remember that the great potential of these games is fostered carrying out in-between formal debriefing stages [13][22], as they allow learners to analyse and reflect on what might be latent in the game experience. Thus, they allow a transfer of skills from the "Magic Circle" of games and play to the real world.

2. Research Questions

- How can teachers involved in Professional Development overcome social and organizational barriers for Game-based Learning adoption?

- How can Theatre games allow teachers to rehearse and validate strategies to manage barriers within their school ecosystem?
- How does participating in a Ricerca-Formazione (Teacher Action Research) affect teachers' professional identity and GBL practices?

3. Methodology

Since this study adopts a Reflexive Thematic Analytical approach [9], it is necessary for myself as a researcher to clarify my background and perspective. I am a 41-year-old PhD student from the University of Milano Bicocca, carrying out research on the Professional Development of teachers who adopt GBL. I have worked for 10 years as a primary school teacher in Italy, specifically in the province of Lecco. I consider this relevant since the teachers belonging to the "Faro Didattico" community, I am doing research with, work in the same province. I also think it's important to state that I have been an active member of this and other teacher communities for the last 4 years, because of the value I give to teacher Professional Development within onsite communities. In addition, I am a man doing research quite exclusively with female teachers and I consider myself a game expert and enthusiast, which is not really typical of Italian teachers [2]. Moreover, I have adopted Game-based Learning in my teaching between 2019 and 2024, and my Master's dissertation in Primary School Education was on Game-based Learning and Game Design for primary school teaching.

This research has been conducted using a qualitative and transformative approach, which follows the Ricerca-Formazione (R-F) methodology [4]. R-F is a specific Italian research approach influenced by the international studies on Teacher Action Research [24]. This methodology posits that:

- teachers should choose to participate and be co-researchers, having well-defined and negotiated roles and goals;
- researchers and teachers should work together as a group according to their negotiated roles;
- the research needs to focus on the specificities of the contexts in which the teachers operate to define barriers and facilitating factors;
- teachers need to have a continuous discussion together with the researcher focused on didactic and school documentation that proves the actual changes happening in the school, in the teaching and in the learning;
- The research needs to have a transformative aim, specifically on how it changes students' learning, teachers' didactics and their school's culture. Thus, these processes need to be monitored ongoingly.

This R-F specifically involved a community of teachers from the Lecco province in Italy between 2024-2025. Within the context of this community, around 80 of these teachers participated in 2 preliminary Professional Development (PD) sessions to familiarize with GBL. Consequently, a restricted group of 8 of them agreed to carry out 3 further monitoring sessions to help them facilitate game integration in their didactics in their school contexts. This whole professional development initiative is then meant to proceed in 2025-26, but this contribution will only look into what happened within this PD teacher community in the first year their teachers trained on GBL.

During these training and monitoring sessions the teachers have played board games, outdoor games, role-playing games and videogames. Moreover, they modified board games [27] to make them align more with their learning goals and to make them more inclusive, according to the Universal Design for Learning principles [11].

In-between the 3 monitoring sessions the teachers were asked to try and adopt GBL in their classes and to document their experience, so as to discuss about it with the other community teachers through some focus groups. This allowed for the integration of co-constructed operative strategies to deal with their educational barriers [8]. Indeed, teachers pointed out some specific barriers and the most recurrent and challenging was the lack of cooperation of class colleagues. Therefore, on the third monitoring session, the researcher asked the teachers to stage a typical situation with class colleagues, which would show how lack of co-worker cooperation made GBL adoption difficult. In this scene one teacher was clearly in favour of GBL, while another one was clearly opposed and dismissive. The third one behaved as a bystander. In this scene the pro-GBL teacher tried to argue that it was important to use games in the classroom and that they were hoping for all the colleagues to cooperate, so that game integration could take place effectively. On the contrary, the oppositional teacher kept dismissing these requests and the colleagues' arguments. The bystander, instead, didn't really do much, if not ask questions to understand both the other teachers' viewpoints.

Once these three teachers finished staging the scene, they had a debriefing session together with the other in-training teachers to analyse the depicted scene. They confirmed that this performance really

portrayed what they live in their school contexts, as the dismissive attitude of colleagues makes it difficult to adopt GBL. Hence, they discussed how to change the script of this scene, so as to make it go in a more favourable direction for the GBL enthusiast. Among the many suggested changes, a core decision was to reframe the role of the teacher who behaves like a bystander, so as to make this role more aligned with that of the pro-GBL teacher. Thus, the 3 teachers re-enacted the scene, according to the established script changes. Although the bystander's support in the scene helped the pro-GBL teacher to make their point, the dismissive teacher only barely gave in to their requests. After this second staging took place, the teachers discussed what happened in this second performance and reflected upon the effectiveness of their script changes. Although they agreed that there was a hint of change in the dismissive teacher's attitude, they acknowledged that this was only a first step towards being fully convincing. Finally, all the 8 teachers discussed about class colleague dynamics and about the potential of using theatre games for PD and for student learning.

All the transcriptions of the focus groups, of the staged scenes and of the debriefings were then analysed using the Reflexive Thematic Analysis approach.

Specifically, this means that, as the reflexive approach suggests [9], I engaged with the data and took note of some initial insights. Then, I systematically coded all the analysed texts to identify insightful features of the data. The choice for the codes was based on the data and how I interpreted their meaning. Consequently, I developed some themes as an outcome of the coding process, ensuring that each theme had a clear central organizing concept that would be distinct from the others. Then, I shared these themes with the teachers involved in the monitoring sessions and with the people responsible for the teacher community. The idea of this involvement was to make sure that these themes made sense to them and, when necessary, I would tweak the wording, so as to make it more appropriately meaningful to them too.

4. Analysis

The analysis of all the transcripts helped define 5 themes that are hereby explained and put in order, according to how the barrier addressing should take place.

1. The GBL Innovator's Self-Work: overcoming Idealism and inexperience.

To implement GBL effectively, the proposing teacher must undergo a process of personal and professional strengthening. This involves overcoming inexperience, by moving past the awkwardness of being a novice, and refraining from stubbornly hoping for an ideal school, in favour of a practical and pragmatic approach. Accordingly, teachers need to demonstrate their competence, because, being secure in their GBL mastery, they can argue the pedagogical sense of their choices and counter criticisms towards GBL.

2. Understanding the Conservative Colleague's dismissive behaviour

The teacher dismissing GBL is defined as "conservative", because they are perceived as a strict figure who defends traditional pedagogy as the only "functional and right" method. The conservative approach is characterized by objectivity, obsession for testing, order and predictability and, so, it becomes a refuge of certainty against the perceived "chaos" of play. Thus, their resistance is not merely a lack of interest, but functions as an emotional shield: these teachers fear that moving away from teacher-centric models will lead to a loss of control or an unmanageable workload.

3. The need for Strategic Alliances with Bystander colleagues

Bystander colleagues behave as spectators who remain neutral, but they can actually support the game-based proposal. Thus, the proposing teacher should focus on building an alliance with the bystander, before facing the conservative colleague. When the bystander steps in as a mediator and joins the GBL enthusiast in a "united front," they can persuade together synergistically, making it much harder for the resistant colleague to ignore their point.

4. The failure of Direct Persuasion: opting for an Accommodating approach

Treating the conflict between pro-GBL and pro-traditional didactics as a "battlefield", to be won through assertive persuasion or adulation only, is not really effective, since conservative colleagues are not easily swayed by direct pressure. Instead, a more successful strategy involves "extending a hand", approaching the colleague without belittling their methods. By acknowledging the distance between their positions and avoiding force, an innovator may find a "glimmer of availability" for collaboration, although this requires time and energy on the pro-GBL teachers' behalf.

5. The Principal needs to set up teacher teams according to pedagogical affinity

There is a systemic barrier in how class teacher teams are formed, which is school principals' pairing of incompatible teachers. Those prone to experimentation are not likely to get along with those who are

not. Principals don't fully realize the implications of their team-building choices, but they should actually take cultural and pedagogical teacher predisposition into account.

Thus, it is possible to define an overarching theme: *Overcoming Professional resistance requires self-competence, strategic alliances, systemic changes and extending a hand to conservative colleagues.*

5. Conclusions

This study looks into the initial stage of a Teacher Action Research (Ricerca-Formazione or R-F) conducted with a teacher professional community in northern Italy between 2024 and 2025. Specifically, the focus is on 5 sessions of this R-F, during which teachers, belonging to this specific community, participated in Professional Development (PD) to understand how to do Game-based Learning (GBL). Therefore, around 80 teachers were introduced into GBL during the first 2 sessions, while 8 of them went even further by trying teaching with this approach in their classes to then participate in 3 monitoring sessions together with the researcher. Hence, these teachers carried out many practical experiences, such as theatre games, and discussed them collectively. The analysis of the focus groups and of the words used while playing and during the theatre games, shows that the effective adoption of GBL is not merely a matter of literacy, but a complex process of relational and systemic transformation within the school environment. This R-F intervention facilitated the reflexivity of teachers, transforming them into co-researchers capable of analysing the specificities and constraints of their unique school environments.

Indeed, a central contribution of this study is that it shows the potential of using one of Boal's theatrical games [5] for training, as it provides a Magic Circle for educators to enact and analyse their professional oppressions as "spect-actors".

Another key contribution is that this PD experience reinforces Yaman's GBL barrier model [31], as all the themes of the analysis fall under GBL attitude, literacy and political barriers. However, this study grounds these categories with empirical examples that are valid for this specific Italian context. In fact, the thematic analysis of all the focus groups and staged interactions clarifies that overcoming co-worker resistance requires self-competence and systemic changes in how teacher teams are built. Moreover, teachers need to build alliances with the colleagues who tend to stand by, creating a synergistic front of persuasion to face the more "conservative" co-workers. Notwithstanding, while dealing with uncollaborative colleagues, teachers should always make sure they are being accommodating rather than confrontational. Overall, through this PD experience teachers got to change from feeling powerless to being aware of the complexities of the school context. Thereby, they are now more empowered, knowing how to deal with the barriers they face.

In conclusion, this study is only an initial step of an R-F, but this methodology, together with the Reflexive Thematic Analytical approach, shows how teachers can evolve their professional identity and competencies. They can indeed become instructional designers that understand the complexity of their school ecosystems and can deal with the social and organizational barriers they face, while they try integrating games in their didactics.

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