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Do you think we are playing? A literature review amidst a quagmire of definitions

Ti sembra che stiamo giocando? Una review della letteratura in mezzo a un ginepraio di definizioni

di

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Abstract:

This article presents a literature review, encompassing a scoping review, and a narrative review within the broader context of game studies. Inside a project focused on *Classcraft* in Italian secondary school, the aim is to answer the research question: Are the students actually playing while they are using a gamified system? Our review reveals a multitude of definitions especially related to gamification in educational contexts, reflecting the complexity and evolving nature of the field. The two different levels of review serve to filter and organize the myriad definitions in the literature. The implications extend to the design and implementation of educational technologies, emphasizing the need for clarity to enhance project themes. This article contributes to the discourse surrounding gamified learning, guiding future research and the application of game elements in educational settings.

Keywords: Game studies; Digital pedagogy; Classcraft; Innovative education; Secondary school

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Abstract:

Questo articolo presenta una revisione della letteratura, che comprende una scoping review e una narrative review nell'ampio contesto dei game studies. All'interno di un progetto incentrato su *Classcraft* nella scuola secondaria italiana, l'obiettivo è rispondere alla domanda di ricerca: gli studenti stanno effettivamente giocando mentre utilizzano un sistema gamificato? La nostra analisi rivela una moltitudine di definizioni soprattutto relative alla gamification in contesti educativi, che riflettono la complessità e la natura in evoluzione del campo. I due diversi livelli di revisione servono a filtrare e organizzare la miriade di definizioni presenti in letteratura. Le implicazioni si estendono alla progettazione e all'implementazione delle tecnologie educative, sottolineando la necessità di chiarezza per rafforzare i temi del progetto. Questo articolo contribuisce al discorso sull'apprendimento gamificato, orientando la ricerca futura e l'applicazione di elementi di gioco in contesti educativi.

Parole chiave: Game studies; Pedagogia digitale; Classcraft; Apprendimento innovativo; Scuola secondaria

1. Introduction

In the contemporary social context, play is still seen as a dichotomous alternative to work (Suits, 2021). Studying is generally seen as an activity that is preferable to playing, playing outdoors is preferable to playing indoors, and watching tutorials of others playing is at the bottom of the hierarchy (Antonacci, 2018). There is still a social “stigma” attached to video games (Sardo, 2023, p. 177) as a medium of a relatively new format.

We often assume that stories told in one medium are intrinsically inferior to those told in another. Shakespeare and Jane Austen were once considered to be working in less legitimate formats than those used by Aeschylus and Homer. One hundred years after its invention, film art still occupies a marginal place in academic circles. The very activity of watching television is routinely dismissed as inferior to the activity of reading, regardless of content (Murray, 1998, p. 273).

In the same way, reading is considered a positive practice today, when in the 19th century novels were frowned upon as they would distract children from real life (Antonacci, 2018). Nonetheless, since the early 2000s, games have increasingly found their way into even formal educational contexts, as in the case of Gee (2003), who has endeavoured to connect “notions of what is considered good practice in situated learning to what is experienced while playing (good) games” (Becker, 2017, p. 51). The adoption of gamification strategies in educational settings has witnessed a notable rise in recent years, attributed to its demonstrated effectiveness in enhancing student motivation¹ and engagement² (Toda et al. 2019a).

The literature review contained in this article is part of a research project involving 10 secondary school teachers in Italy in the use of *Classcraft*, a digital system based on metaphors that alter the

¹ For a hint at the self-determination theory from which it derives see paragraph 3.

² For its relation to playfulness see Masek and Stenros (2021).

interpretation of the actions undertaken by students. In fact, in line with what is described in the magic circle phenomenon (Huizinga, 1980; Antonacci, 2019), “when Classcraft is played, the classroom is not a classroom anymore” (Bonvin & Sanchez, 2017). Integrating various game elements to establish an environment conducive for the cultivation of what Suits (2021) referred to as a lusory attitude (Sanchez et al., 2017), *Classcraft* satisfies conditions of optimal gamification learning experiences (Zhang et al., 2021).

The main research question to be answered within this paper is: Are the students actually playing while they are using a gamified system? Other secondary but intrinsically related research questions are: Is it still a game, even though students are in fact obliged to participate? -Do the students have a voice?

The objectives in the process of answering these questions include first and foremost filtering and organising the countless definitions that appear in the literature under the aegis of game studies, since in the presence of terminological ambiguity, dialogue would be impossible (Bertolo & Mariani, 2020). Consider, for instance, the terms “gamification” and “game-based learning”, often juxtaposed³ and sometimes considered (erroneously) synonymous. Finally, it is important to relate these definitions to the *Classcraft* project and to drive their implications for gamification in secondary school.

The significance of this article lies in its contribution to the ongoing conversation about gamified learning, providing guidance for future research and the integration of game elements into educational settings. In particular, the implications extend to the design and implementation of educational technologies, highlighting the importance of clarity in improving project themes. It is noteworthy that although *Classcraft* has been studied extensively in different countries, its popularity in Italy is currently limited and no studies have been conducted on it.

The structure of the article is as follows: Methods of conducting the literature review, Results emerged, Discussion related to them.

2. Methods

A scoping review was chosen as the best method to start with, as it is an invaluable tool for delineating the extent and coverage of the literature on a particular topic, providing a transparent overview of the available volume of literature and studies, whether broadly or narrowly focused (Munn et al., 2018). It provides a way of assessing emerging empirical evidence and serves as a first step in exploring a particular topic, without aiming to draw specific conclusions. Unlike systematic reviews, scoping reviews do not require an assessment of the quality of the studies selected. Although more rigorous than a narrative review, a scoping review is less time and resource intensive than a systematic review. It is designed to address a specific and well-defined research question and has the potential for replication. A scoping review was performed following the five steps of SPIDER tool: *i*) identify research question, *ii*) identifying relevant studies, *iii*) study selection, *iv*) charting the data, *v*) collating, summarising and reporting the results (Cooke et al., 2012). Thus, here it is the initial research question with which it was conducted this phase of the review: Which features of gamification and game-based learning affect students’ evaluations, engagement, inclusion, and flow

³ See reference to EU legislation in Sardo (2023).

in Italian middle school? *Classcraft*, a case study of online platform. It should be noted that this bibliographic research question, which gave rise to the research strings shown in Figure 1, differs from the updated research question that guided the project on *Classcraft* and, at the same time, does not coincide with the main question of this article.

SPIDER tool	Contents of queries
<u>S</u> (sample)	Italian middle school students 11-14 -> 10-16
<u>P</u> I (phenomenon of interest)	use of <i>Classcraft</i> or other similar gamified systems
<u>D</u> (data)	all , both qualitative and quantitative
<u>E</u> (evaluation/outcome)	observation about which features lead to a change about evaluations, engagement, inclusion, and flow
<u>R</u> (research type)	all , qualitative, quantitative, and mixed method

Figure 1 – Articulation of the SPIDER tool from the initial research question

Inclusion criteria for selecting relevant studies are directly related to the queries of SPIDER tool. With regard to the age of the students, it was decided to extend the sample to include 10-16 year olds, otherwise the number of results would have been too small. In this way it was possible to include some high school studies; this proved to be far-sighted as one of the 10 classes involved in the *Classcraft* project is a high school class. Other inclusion parameters were similarity to the *Classcraft* system and suitability of the study to the queries. It is understandable that the latter two could be seen as subjective criteria, but decisions had to be made. Finally, papers that had already been found in other databases weren't included; papers that were inaccessible, for example because they were not open access, were excluded.

Databases consulted for this phase were four: *Classcraft* website, ERIC, Prometeo, SocArXiv. On *Classcraft* website it wasn't necessary to provide for research strings, since the number of papers was limited. On ERIC two different research strings were fulfilled: “Classcraft”; “Gamification” AND (MAINSUBJECT.EXACT(“High School Students”) OR MAINSUBJECT.EXACT(“Junior High School Students”) OR MAINSUBJECT.EXACT.EXPLODE(“Middle Schools”) OR MAINSUBJECT.EXACT(“Preadolescents”) OR MAINSUBJECT.EXACT(“Early Adolescents”)). On Prometeo the following research string was launched: “Game-based learning” AND “Middle school” AND “Gamification”. In conclusion, on SocArXiv two research strings have led to acceptable results: “Gamification”; (Game-based learning) AND “Middle school”. It was then decided to carry out a new targeted search in four generalist databases (Google Scholar, Semantic Scholar, Academia.edu, ResearchGate, Italian E-learning Association) to investigate the presence of similar papers in Italy, following the same parameters used so far.

While the initial formulation of the research question explicitly included four “variables”, namely evaluations, involvement, inclusion and flow, which were successfully used in the rigour of the SPIDER tool, and also with the aim of obtaining a reasonable number of results, the focus of the overall *Classcraft* project changed *in itinere*. A more general research question was formulated, which does not imply a direct cause-and-effect relationship between gamified system features and some variables: How do different game elements introduced in didactics can affect students' experience in Italian middle school?

A “cascade” method, often considered within the broader category of narrative reviews, was conducted to answer this question, taking into account the papers and booklets that had been encountered in relation to game studies (Bertolo & Mariani, 2020), learning and pedagogical theories (Becker, 2017). Narrative reviews provide comprehensive overviews of the existing literature by synthesising information from different sources into a coherent and interpretive narrative. The “cascade” involves starting with key articles and tracing citations and references within them. This method allowed the researcher to follow a cascade of information, exploring related studies and deepening the understanding of the topic. Within the narrative review framework, the “cascade” method proved valuable in uncovering additional relevant literature and establishing links between studies, thereby increasing the comprehensiveness of the review. This is in line with the overall aim of narrative reviews, to provide a coherent and insightful synthesis of existing research on a particular topic.

3. Results

Figure 2 shows the 34 results of the scoping review distributed by country on a map of the world and, in parallel, by study design. For the specific Italian phase (not represented in Figure 2), 4 papers were found: one quantitative study, two mixed methods and one review. It is impossible to reproduce all the other texts resulting from the cascade of narrative reviews that have enriched this work. The following subsections contain the most important part of the review, as they allow us to move from the summary of the main findings to the substance of essential definitions, in order to answer the research questions and guide the subsequent discussion.

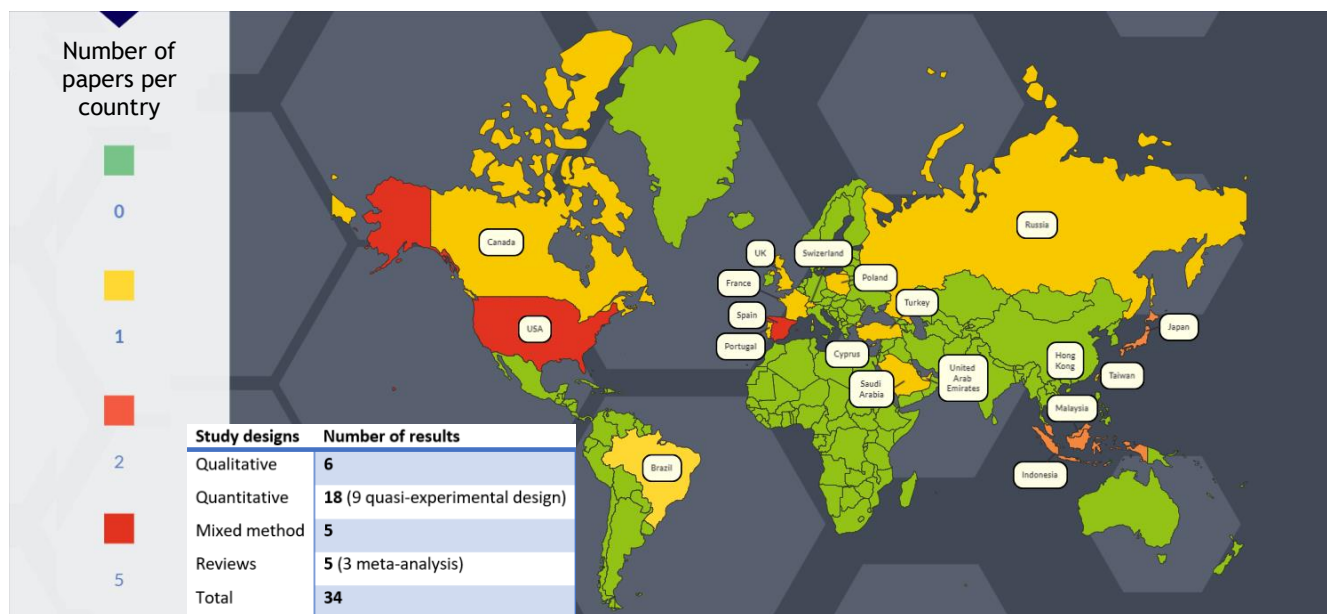


Figure 2 – Results from scoping review

3.1. Game

The first definition of game that all game scholars have had to and must come to terms with is Huizinga’s (1980), taken up by Antonacci (2022), among others: game is a voluntary action or

occupation, performed within certain defined limits of time and space, according to a voluntarily accepted rule, yet absolutely committed, which has an end in itself, accompanied by a sense of excitement and joy, and by the consciousness of being different from ordinary life (Rossoni & Riva, p. 41). Salen and Zimmerman (2004) take this definition to another level. They see the game as a system within which players choose to engage in an artificial conflict, defined by rules, that leads to a quantifiable outcome. Games should not be confused with toys. The nature of the two has been well distinguished by Walz and Deterding (2014), from whom Figure 3 is taken, which outlines their relationship respectively to the two attitudes *ludus* (“gameful”) and *paidia* (“playful”) inherited from Caillois (1981).

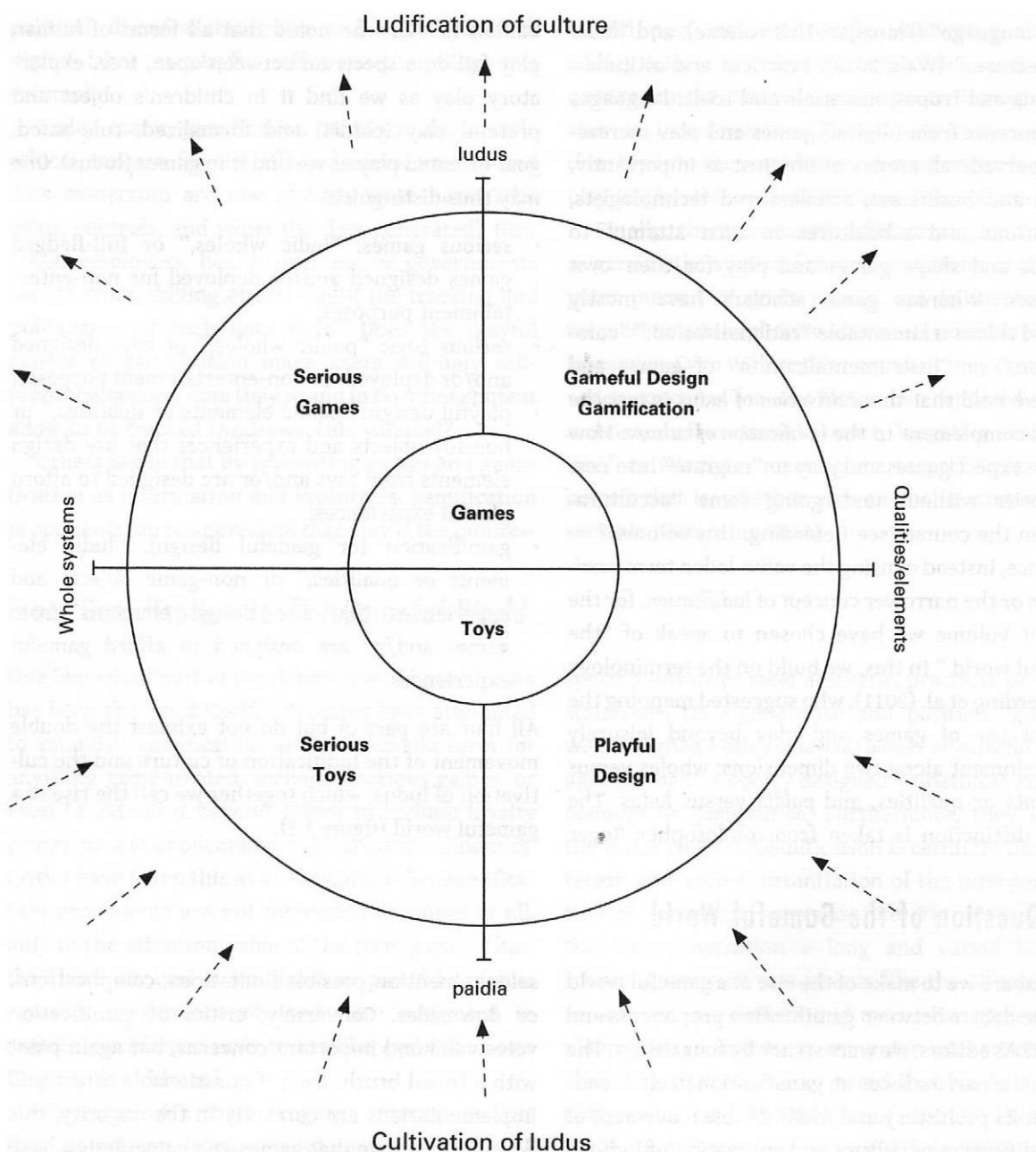


Figure 3 – A conceptual mapping of the gameful world, from Walz and Deterding (2014, p. 8)

Beyond its definition, we can affirm that the game is an original, very serious experience, like love or work, and cannot be reduced to a tool for achieving goals or filling cards and tables (Antonacci, 2012). Antonacci (2022) states that the player is aware that it is a game, while being completely immersed in the virtual but well-defined area named “magic circle” (Huizinga, 1980; Antonacci, 2019), as is the case in other dimensions of experience, such as artistic enjoyment, the dimension of the sacred and the expressive practice of the various mimetic arts (Rossoni & Riva, p. 43).

3.2. Play

Among the many definitions of “play” that have been proposed in the history of game studies, Suits (2021) suggests that it is the voluntary attempt to overcome unnecessary obstacles. Playing requires 4 basic components: *i*) a prelusory goal (which already exists independently of the game), *ii*) lusory tools (within the game), *iii*) constitutive rules, and *iv*) lusory attitude (voluntary adherence on the part of the player). McGonigal (2011) adopts this definition almost in its entirety, fulfilling it. Albeit with slight terminological nuances, he recovers the components *i*) and *iv*), combines *ii*) and *iii*) as both part of the (constitutive) rules, and adds *v*) the feedback system to the basic components. However, playing is not enough: we want a well-played game for a positive game experience.

3.3. Game(ful) experience

If you play a game, you perceive the game experience. This is composed by three components (Ermi & Mäyrä, 2005): sensory immersion (audio-visual aspect), challenge-based immersion («agon» aspect, Caillois, 1981) and imaginative immersion⁴. The game experience emerges through the collaborative interaction between the game and the player, signifying that the player actively contributes to its formation (Ermi & Mäyrä, 2005; Huotari & Hamari, 2017; Högberg et al., 2019). These definitions are perfectly aligned with the contents of Manifesto *Una scuola* (Antonacci & Guerra, 2018) and the constructivist gnoseological assumption (Mortari & Ghirrotto, 2019). Instead, the gameful experience is the one related to gamification, which will be explored later. In fact, “there is no point in gamifying if the aim is not to achieve a gameful experience” (Högberg et al., 2019, p. 622). The sense of achievement and the motivational impact of the gameful experience should not end with the use of the gamified system but extend beyond the game phase and into the post-game phase. The GAMEFULQUEST is an instrument that measures the gameful experience along 7 dimensions: Accomplishment, Challenge, Competition, Guided, Immersion, Playfulness, Social Experience (Högberg et al., 2019).

3.4. Player type

The player is who’s playing a game. The first famous attempt to profile players was Bartle’s taxonomy (1996), that identified 4 types: Socializers, Explorers, Achievers and Killers. The aim was to find the most suitable game for each of them. With the same intention in the field of gamification, more recently we have come up with the Hexad scale (Tondello et al., 2019), which identifies the user’s profile so that the (video) game can be customised as much as possible. The Hexad counts 6 different user types, «personifications of people’s intrinsic and extrinsic motivations, as defined by

⁴ For an in-depth study of imagination as a cognitive faculty, i.e. the ability to draw on the symbolic dimension (not to create it), hermeneutically, to bring out latent meanings see Bertolo and Mariani (2020).

self-determination theory». User types motivated by intrinsic motivations are: *i)* Philanthropists motivated by purpose; *ii)* Socialisers motivated by relatedness; *iii)* Achievers motivated by competence; *iv)* Free Spirits motivated by autonomy. *v)* «Players are motivated by extrinsic rewards»; *vi)* «Disruptors are motivated by the triggering of change» (*ibi*, p. 97). The problem with this scale is that user types are dynamic, and for this reason often the dominant characteristic isn't enough to define the user and adapt the gamified design accordingly (Santos et al., 2021b).

3.5. Gamification

Even if, in itself, the word “gamification” is neither positive nor negative, in the early 2010s was covered with a negative veneer. The suffix *-ication* (usually seen as negative) and the accusation of devotion to the capitalist system in the manipulation of consumers in various areas, from the simple supermarket points card to the most disparate aspects of marketing, weighed on it (Walz & Deterding, 2014). Gamification is generally recognized as the use of game elements in non-game context (*ibidem*). Hamari (2019) introduced an important element, shifting the core of the definition to the purpose, without, however, hiding a little the reference to the non-game context: «transforming systems, service and activities to better afford similar motivational benefits as games often do». If games have a hedonistic purpose, gamification has a different one, that is particularly well suited to the educational context, an area where gamification has been gaining ground in recent years.

The use of games has a fairly traditional history in pedagogical practices, whereas the term “gamification” describes a different and more recent process of using incentive systems, rewards, and stimulus management techniques. An effective way to summarise gamification are game elements, sometimes called features (Sanchez et al., 2017), which have their root in Caillois' (1981) game components⁵. For the educational context, there is a single taxonomy of game elements validated in the literature, counting 21 (Toda et al. 2019a), grouped into 5 gamification designs (Toda et al. 2019b). Although the aim is to cater for different user types, as an adaptive-gamified systems is better than a simply-gamified system (Daghestani et al., 2020), to straighten out the null or negative (Çakıroğlu & Güler, 2021) or contradictory (Brambilla, 2023) results sometimes recorded with gamification in the educational context, however, a satisfactory correspondence between gamification designs and user types has not yet been achieved (Santos et al., 2021a). In this regard, Palmieri (2022) invites us not to forget that any educational experience - and the game(ful) experience is one (Becker, 2017) - is in itself open to the risk of failure (Rossoni & Riva, p. 19).

3.6. Game-based learning

Game-based learning is usually understood as a large container for all game-related learning theories. Nonetheless, “games for learning should really be viewed from at least two perspectives. One is the perspective of the learner, which considers how people learn from games, and the other is the perspective of the teacher, which looks at how we can teach with games”, i.e. pedagogies (Becker, 2017, p. 26). Taking the learner's perspective into consideration, having to define a theory of learning here, it is possible to state that game-based learning

⁵ Bear in mind that in his work there was still an ambiguity in the terminology between game and play (Bertolo & Mariani, 2020).

consider how the existing conditions of a person and their environment interact with the psychological and physiological functioning of the human mind and body (methods) to bring about a change in that person's worldview, behavior, and/or skills (outcomes). In other words, [game-based learning attempts] to explain how people learn (Becker, 2017, p. 27)

through game. Principal learning theories can be summarized as: behaviorist theories, principally based on external motivation usually in the form of reward and punishment (Becker, 2017, p. 29); humanist theories (like self-determination theory) that are centered on self-actualization and autotelism, and usually refer to the Csíkszentmihályi's state of flow (Zhang et al., 2021), which is anyway not enough by itself to explain learning as such; cognitivism, which tries to understand how we learn; constructivism, influenced among the others by John Dewey, Maria Montessori, that describes of building knowledge and meaning together (Ghirotto & Mortari, 2019).

None of these can be transformed into a prescription for how to make a perfect game, but these theories do help us to examine games from the perspective of the player, and they also help us to understand the mechanisms that play a role in how games facilitate learning. Further and perhaps more relevant for us, they can help us to determine which kinds of games are most likely to be suitable for our purposes in a given situation (Becker, 2017, p. 28).

Game-based learning should not be confused with gamification either. There is some overlap with this, it is true: Gee (2003), Walz and Deterding (2014) define game-based learning as an approach aimed at fostering positive emotions, engagement, and motivation in educational activities through the incorporation of features and settings reminiscent of games. Although the purpose is the same and game-like features are constitutive of both, they are not the same thing: one is the action of gamifying, the other is the container of learning theories.

4. Discussion: answering the research questions

This first paragraph of discussion aims to interpret the results in the context of the research questions. The main question declared into the Introduction was: Are the students actually playing while they are using a gamified system? Since playing implies a "voluntary attempt", we have to ask ourselves if the students were free or not to take part in the *Classcraft* experimentation. If the students are not free, it is not really playing (Suits, 2021; De Koven, 2019), because it is not voluntary. And the pupils were not free: there was no other way. The use of *Classcraft* did not have the autotelic purpose of getting students to play. Questions also need to be asked: If the experiment were to be repeated elsewhere, would it make sense to let the students choose whether or not to participate, to start playing at a later date? What effect would this have? Would it help my research? It would also mean that a student could drop out at any time, perhaps causing a domino effect at a difficulty: would this be pedagogically sound? In any case, the element of lusory attitude remains fundamental in the dynamics to be pursued during an experiment of this kind and in class life in general, as it is considered by many authors to be the discriminator between play and work (Suits, 2021).

A secondary research question intrinsically related to the first was: Is it still a game, even though students are in fact obliged to participate? There is no need for repetition here, but if we look at the definition of "game", we can also find the word "voluntary", this time before "action or occupation"

and “accepted rules”. *Classcraft* is not a game. The game has a value in itself, an intrinsic value, whereas in the case of *Classcraft* there is another goal, which is the greater involvement of the students, the same as gamification. Is it enough to have the same goal to be the same thing? No. But it can be said that it is gamification because it is the inclusion of game elements in the classroom context. In light of this, bearing in mind the negative meaning of gamification, there is also the risk of manipulating students, lapsing into a persuasive game, i.e. something designed to let you do something you don’t want to (Walz & Deterding, 2014). Without going too far in asking whether it is ethical or not to manipulate where the end is good, the feedback system envisaged by *Classcraft* (experience points, levels...) considering the learning theories mentioned above, winks at Pavlovian behaviourists. However, this is not enough to claim that it is manipulation. Once again, autotelism, to which learner engagement, the concept of well-being (Seligman, 2017; De Koven, 2019; McGonigall, 2011) and flow are correlated, remains in the foreground.

The last declared question was: Do the students have a voice? As it was said before, it’s not enough to play, it’s not enough to gamify: it’s necessary to aim for something more, it has to be a well-played game (De Koven, 2019). In good games, the price of failure is lowered; the player co-creates the world, producing and not just passively consuming (Gee, 2008). For these reasons, the best solution to engage students in the same way as a game, while it’s still gamification, should also involve students in defining the rules, in a kind of guided debate, so that they choose deeply (Sanchez et al., 2017; Ceccacci, 2022), winking more at constructivism (Mortari & Ghirotto, 2019).

5. Discussion: implications and future research areas

From what emerged from the different stages of the review, there are many recent studies, confirming that we are dealing with particularly relevant topics. The places where these studies have been conducted, thinking of the results depicted in Figure 2 but not only, also illustrate the ramification of these concepts. This is not a niche or typically Western phenomenon. Since it is generally a phenomenon that can be ascribed to the ecological paradigm (Ghirotto & Mortari, 2019), it remains important to study it in diametrically different contexts by broadening the audience of those who experience and, above all, benefit from it.

The research question that guided the scoping review, containing 4 variables, was nothing more than a different, perhaps more acerbic, way to investigate the dimensions of GAMEFULQUEST (Tondello et al., 2019). The sense was to similarly head in the, albeit very difficult, direction of a greater customisation of gamification in an educational context such as the Italian secondary school classroom. This aligns with the general aim of many current studies on these topics, especially on gamification, to become capable of measuring (different) gameful experiences, in order to maximise the customisation potential from each user’s point of view. Thinking back, in fact, to Hamari’s (2019) definition, which avoided focusing on Deterding’s non-game context (Walz & Deterding, 2014), the question then arises: Is it possible to gamify a (video) game? Evidently, yes. What is the point of gamifying something that is already game? To bring about greater involvement, to get to perfect and customise the gamified system so much that it satisfies any palate, to make the most of the gameful experience. If I gamify a game, does it remain a game? Clearly not, because I add another purpose to it than its intrinsic one. It is evident that this whole branch of research is indeed related to improving learning, but that it is a discourse that, as one can well imagine, is more concerned with game design,

especially for the digital video game sector. In order to arrive precisely at the identification of the best gamification design to assign to each user, one research modality that is being barely explored is that of collating an enormous amount of data (following the same principle on which the cookie system is based on the web) in order to generalise in a statistical way, thanks to AI, how the user type changes according to origins, age and so on (Vasconcelos et al., 2022). If, therefore, for the time being we have not found the solution in the world of video games, as far as the results that will perhaps cascade into the world of education are concerned, we are still a long way off.

In all this, teachers remain crucial for the success of the experimentation. They play at the same time the role of “instructor”, “playmaker” (which we would call “master” in a role-playing game), “guide”, “evaluator” (Becker, 2017, p. 155). This emerges from the literature review and is confirmed by an initial reading of the *Classcraft* project data, which will be followed up. This highlights the importance of training teachers in what has been termed “game literacy” (*ibi*, p. 55) in order to increase the likelihood that experiments introducing gamification in a school context will work. How to spread this game literacy among teachers is certainly an area for further research.

There is another question that remains unanswered academically, given the contradictory results: does gamification help students perform better? Perhaps, however, it is a poorly posed question. The purpose inherent in the definition concerns involvement. It is true, that reasonably, by involving pupils more, one would expect to achieve higher grades. However, the discourse is more complex, as it involves reflection on the evaluation itself and even more broadly on the meaning of school. It is not by raising grades that one is certain that pupils will improve. In any case, it remains a question that needs to be explored.

With regard to the discourse on the duration of effects, thinking about gamification at school, it is still necessary to observe its effects on teaching after use. What happens after one stops using a gamified system in a classroom? This area of research would deepen the themes of self-determination theory relating to intrinsic and extrinsic motivation.

6. Conclusion

This paper deductively relates the results of a literature review, a combination of scoping and narrative review, to a *Classcraft* experimentation in 10 secondary schools in Italy, where its popularity in Italy is currently limited and there are no specific studies on it, despite extensive studies on *Classcraft* in different countries. This made it possible to answer the main research question and the two secondary ones. Students aren't playing, and *Classcraft* is not a game, because it is a teacher's choice and a kind of imposition within the classroom, so they don't participate voluntarily. Nevertheless, they can have a voice in the construction of the rules of the “game”. This can help their mindset to make using *Classcraft* look like a game experience. While addressing these questions, an operation was undertaken to filter and organize the numerous definitions present in the literature within the realm of game studies, focusing particularly on the terms “gamification” and “game-based learning”. The importance of this paper lies in its contribution to the ongoing discourse on the incorporation of game elements in secondary school, providing insights for future research related to the broadening of contexts, the possibility of using AI to customise gamification in school, the role of the teacher, the performance of the students and the issue of time use, the last two of which are also explored in the study of which this article is a part. It did not start from the assumption that gamification or *Classcraft*

are the final remedy against the negative drifts of school, but to test their effectiveness, identifying their strengths and their dysfunctions. In particular, the project aims to develop how different game elements introduced in an Italian secondary school can affect the students' experience. It is also expected to produce a best practice guide for future users of *Classcraft* or similar gamified systems.

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