

Is it a Crime? The Non-Definition of Gamification

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Abstract

Gamification is regularly defined as the use of game elements in non-gaming contexts (Deterding et al., 2011). However, discussions in the context of the pedagogical value of gamification suggest controversies on various levels. While on the one hand the potential is seen in the design of joyful learning environments (Hung, 2017), critics point out the pedagogical dangers (Buck, 2017) or the problems related to optimizing working life (Woodcock & Johnson, 2018). It becomes apparent that the assumptions guiding action on the subject matter of gamification in educational contexts differ, which leads to different derivations for pedagogical practice - but also allows for different perspectives on initially controversial positions. Being aware of these assumptions is the claim of a reflexive pedagogy. With regard to the pedagogical use of gamifying elements and their empirical investigation, there are three main anchor points to consider from a reflexive stance: (a) the high context specificity of the teaching undertaken and (b) the (non-)visibility of the design elements and (c) the (non-)acceptance of the gamified elements by the students. We start by providing a (2) discussion of the definitional discourse on what is understood as gamification leading to our argument for a non-definition of gamification. We describe the (3) potential of this non-definition gamification and (4) exemplify its use in a gamified concept of teaching police recruits professional reflexivity. The concept features the narrative of a potential crime that has been undertaken and that students decide for themselves if they want to engage with it.

Keywords: gamification, non-definition, learning environment

1 Introduction

Playing is part of human nature (Caillois, 1961; Huizinga, 2015). Playing is fun, motivating and engaging (McGonigal, 2011; Reeves & Read, 2009; Werbach & Hunter, 2012), promotes competition (Reeves & Read, 2009) and has a positive effect on teamwork (Vegt et al., 2014). In addition, playing games is also suitable for trying out behavioral strategies and can thus serve as a consistently reduced training and educational environment (Staller et al., 2020). Our private and professional lives seem to be permeated by gamified elements, for example when collecting bonus points when shopping, in the context of health care or when traveling (Skinner et al., 2018; Stieglitz et al., 2017). Gamified activities primarily aim to increase motivation in a wide variety of activities in order to increase the quantity and quality of the output of the corresponding activity (Morschheuser et al., 2017). The idea seems simple: the joyful and motivating aspects of the game should be used to positively influence less joyful and motivating activities, such as routine activities, in the sense of a better output (Raczkowski & Schrape, 2018). The goal is to take advantage of the positive aspects of playing and to transfer them into non-playful contexts. The instrumental use of these design elements, through which the transfer of the positive qualities of games should take place, is generally understood as gamification (Deterding et al., 2011). However, consensual definition is still lacking (Fischer et al., 2017; Schöbel et al., 2020). For example, other definitions focus on the utilitarian benefits of gamification: gamification as process improvement through playful elements in order to increase value creation (Hamari et al., 2014; Huotari & Hamari, 2012; Stieglitz, 2015). While the definition of Deterding et al. (2011) includes the use of game design elements without direct transfer to an improved output (e.g. higher motivation, more performance), in the definition of Huotari et al. (2012) this is a mandatory prerequisite for the intention of gamification. The utilitarian perspective of gamification is of particular interest in educational contexts (Buckley et al., 2017; Buckley & Doyle, 2014; Córdova et al., 2017; Pill, 2013; Subhash & Cudney, 2018), but there are also critical perspective on its use in these contexts (Buck, 2017; Woodcock & Johnson, 2018).

Empirical studies on possible positive effects of gamification show a mixed picture. An explanatory approach for the different results lies in the range of possibilities for gamification (e.g. points, levels, narrative elements) and their application in different contexts with different user groups (Hung, 2017; Schöbel et al., 2020).

While much of the empirical data on gamification examines its immediate benefits (Hamari et al., 2014; Hung, 2017; Looyestyn et al., 2017), the question arises to what extent the experience of gamification per se can represent a value that does not necessarily manifest itself in behavioral change. Normatively, it is regularly stated that gamification should not impair the effectiveness of an educational setting (operationalized as learning that has taken place) (Fischer et al., 2017). However, to what extent a gamification must have positive effects on behavior, we consider worthy of discussion. Does something have to be achieved / changed or can the experience (through a gamified element) per se also be desirable? It is precisely here that the difference between different conceptualizations of gamification unfold its effects.

We argue in this article that the different concepts of gamification lead to controversies on various levels. While on the one hand the potential is seen in the design of joyful learning environments (Hung, 2017) critics point out the pedagogical dangers (Buck, 2017) or the problems related to optimizing working life (Woodcock & Johnson, 2018). We argue, that these different perspectives are mainly related to differing guiding assumptions about the core of gamification, which in turn lead to different derivations for pedagogical practices. Being aware of these assumptions allows for new perspectives of initially controversial positions. Being aware of these assumptions is the claim of reflexive pedagogy (Brookfield, 2017; Körner, 2009), taking a reflexive stance towards what is implemented how and why in specific contexts.

Therefore – the current paper aims at reflecting the assumptions about gamification and proposes a non-definition of gamification that can guide implementation from a reflexive standpoint harnessing its context-specificity. To explain our point we conclude by presenting a gamified learning environment that has been conducted at a German Police University and that has been evaluated elsewhere (Staller, 2020).

2 Definitional Discourse: What is Gamification?

Language allows us to differentiate between different concepts. Viewed from a systems theoretical perspective the assignment of a term towards a phenomenon A distinguishes it from what is not: not-A (Luhmann, 1981). As such gaming has been differentiated from play and play from not-play (Walther, 2003): a game is not a play, and playing is not not-playing. Concerning the difference between game and play,

there are languages that do not differentiate between these two concepts. For example, in German there is no difference between game and play. Germans use the term "Spiel". Germans "spielen" - without considering further differentiations of this term (like play and game) on a linguistic level. As such, for Germans gaming is playing and gaming is playing ("spielen ist spielen").

While one may wonder, why the aspect of non-differentiating between these concepts may be of value, we have to consider the conceptualizations of gamification, which relates to the difference between play and game. If there are different framing assumptions of what may be included within the concept of gamification, the result of what gamification in educational contexts (and others as well) looks like will likely differ. The focus on what is understood to be used excludes what is not focused upon. The definition limits its practical use.

Turning to the different conceptualizations of gamification, Deterding et al. (2011) define gamification as the use of game design elements in non-game contexts (Deterding et al., 2011), whereby the authors limit gamification to "games" and not "play". This is an important point based on Caillois' (Caillois, 1961) distinction between "*paidia*" (playing) and "*ludus*" (gaming), where *paidia* demarcates a more anarchic mode of spontaneous interaction against the structured competition of *ludus*. The difference between these two concepts (play vs. game) is regularly discussed (Walther, 2003) and has implications for the concept of gamification (Woodcock & Johnson, 2018). Woodcock et al. (2018), for example, state the human desire for play (more closely *paidia* than *ludus*) as the reason for the enormous difficulties in analyzing gamification. A game is often ascribed a higher structure on several levels than a play (Caillois, 1961; Juul, 2001; Walther, 2003).

These structural characteristics of a game are criticized from an educational perspective, since - according to the argumentation - it is characterized by linearity and thus offers no platform for "applying pedagogical-reflexive power of judgement" (Buck, 2017) (p. 276). Based on the assumption of a temporal and spatial framework of a game, this argumentation seems plausible. Buck (2007) continues that "Players [...] cannot transcend the rules of the game and the rules set beforehand, they are subject to a set of conditions that categorically exclude the participation, contradictions or even participation and modification of the regulator" (p. 277). This argumentation of

structural containment and the resulting limited framework for action is also shared by other authors (Woodcock & Johnson, 2018). The structures given by rules and mechanics in the game undoubtedly limit; on the other hand, however, they also allow degrees of freedom that can be developed on a functional level (Körner & Staller, 2020; Torrents et al., 2020). This is, for example, where non-linear pedagogy shows its potential (Körner & Staller, 2020): It uses the setting of constraints in order for more freedom to emerge. In addition to the potential of limitation in order to open up more potential for freedom, however, the basic assumption of the pre-structuring and linearity of play also seems worthy of reflection.

In practice it becomes clear that what is played is not always a structured game. Even within the structural game frame, players find joyful activities beyond the designers intention and beyond the intended structure (Walther, 2003). In various video game formats, the structural framework becomes blurred, which becomes clear in the example of open-world video games (e.g. Red Dead Redemption 2). There is no rigid linearity.

Irrespective of the differentiation between game and play, it is not always easy to distinguish between play and no-play (Walther, 2003). Although (Huizinga, 2015) in his seminal work "homo ludens" points to the spatial and temporal limits as a constitutive moment of play, it is evident from the playful practices, such as Alternate Reality Games (Chess & Booth, 2013; Lynch et al., 2013; McGonigal, 2011) that this spatial and temporal structuring can be perpetuated. The question of whether a game has already begun can also be a question of perspective. In order to know that one is part of a game, the player would have to recognize that he/she is playing; which in turn raises the question of recognizing the state of play.

From a practical point of view, for example, it is possible to involve students in a game without them noticing immediately. The teacher (or puppet master in the jargon of Alternate Reality Games) is playing the game, but from the perspective of the players, this is not necessarily directly recognizable or there is also the possibility of refusing access to the game. In this case the teacher plays but not the learner. On the other hand, it is possible that a learning setting is perceived as a "game" by a learner or is redefined as such, even if the teacher would vehemently deny this. There seems to be a certain subjectivity in the concept of play: It plays, who plays.

Sutton-Smith (2001) argues in a similar direction. He argues that the definition of both play and game in positive, non-paradoxical terms is a hopeless endeavor. Instead, he suggests the use of clear examples when referring to play or game, which in turn has a subjective character. It seems like we cannot escape our paradigmatic horizon, since our observations are entangled in our understanding of the observed itself (Sutton-Smith, 2001). Sutton-Smith goes on to say that in terms of action and epistemology, we are so burdened by the game that it becomes a paradoxical task to go beyond this framework and view the game in a neutral and ontological way. It becomes apparent that it is difficult to differentiate between the two concepts (play vs. game) - and also in the differentiation from what is called non-game - and that the transitions are fluid (Juul, 2001; Sutton-Smith, 2001; Walther, 2003). Accordingly, various authors point out the transgressive character of the individual concepts (Walther, 2003; Woodcock & Johnson, 2018).

The blurring character of a conceptualization of game is evident in the Alternate Reality Games mentioned above. Their character is described as difficult to define and the design also shows that the boundaries blur. This is already evident in the immanent game principle of Alternate Reality Games: "This is not a game" - the game as a non-game. If non-game, game, non-play and play cannot always be clearly separated, what does this mean for the use of game elements in non-game contexts? Is this subjective perspective on what is understood as play also the case with the use of game elements in non-game contexts? Woodcock and Johnson (2018) argue in that direction. They describe the playful subversion of working life, which they refer to as gamification-from-below, as the "true" form of gamification. In contrast, they refer to the application of a specific game mechanic to everyday life as gamification-from-above with a primary focus on the reinforcement of work. This "terminological foreclosing of alternative possibilities" (p. 12) restricts gamification to the linear-framed boundaries with its critiques (Bateman, 2018; Buck, 2017). By understanding gamification beyond a limiting structural framework of a playful experience beyond primarily intended playing settings, it releases its full potential. It plays, who plays. The definition as a non-definition.

3 The Potential of a Non-Definition of Gamification

With regard to teaching practice, the definitional discourses only help to the extent that they enable reflection on the own action-guiding assumptions of the own (gamified) teaching practice. From a practical perspective, the question seems to be rather whether and how gamification (in the sense of non-definition) can make a contribution in educational settings.

The literature on gamification refers - in view of a non-consensual gamification theory (Fischer et al., 2017; Matallaoui et al., 2017) - to different theories and concepts of psychology, which play a role in connection with different design elements (Huang & Hew, 2018; Richter et al., 2015; Sailer et al., 2017). For example, the concept of self-efficacy (Bandura, 1982, 1983), the needs of Maslow (Maslow, 1943), goal setting theory (Locke, 1996; Locke et al., 1981; Locke & Latham, 2002), the theory of social comparison (Festinger, 1954), flow theory (Csikszentmihalyi, 1975; Seligman & Csikszentmihalyi, 2000) and last but not least, self-determination theory (Ryan & Deci, 2000). The latter in particular is used as a meta-theory to motivate the effects of many game elements as an explanatory approach (Rigby & Ryan, 2011; Rogers, 2017). The instrumental character of the concepts and theories in relation to the game element is striking. The central question is how a specific game element can be designed in order to ensure an optimal achievement of goals (goal theory), an optimal level of difficulty (flow theory) or an optimal degree of autonomy (self-determination theory).

However, from the perspective of a non-definition of gamification, other concepts move into focus. Concepts such as fun and enjoyment also seem to make a valuable contribution to learner-teacher settings. The role of fun in learning seems undisputed, especially in early childhood (Hromek & Roffey, 2009; Lieberman, 1977). There is also evidence for the importance of play in adulthood (Colarusso, 1993), the value of fun and humor in the workplace to increase creativity and productivity (Baldry & Hallier, 2009; Lamm & Meeks, 2009) and to reduce stress (Charman, 2013; Holdaway, 1988; Holmes & Marra, 2002).

For the specific context of higher education, recent research (Whitton & Langan, 2018) has examined what is perceived by students as a joyful learning experience. A low level of stress caused by joy and fun in the learning environment was also mentioned. In addition, the results showed that a safe learning space in which mistakes can be accepted and made is an important element. With regard to the teacher, the

enthusiasm of the teacher, a high level of expertise and the desire to teach were identified as important elements. On the relationship level, the results showed that students find it joyful to share experiences with other students in playful settings. A simple contact with the teacher - by meeting at eye level - was also perceived positively. The students' reports also highlighted the stimulating effects surprises, new elements and active learning. The effect of playful settings on students is an important aspect for curriculum planning; if the effects mentioned are intended, there is the possibility to trigger effects through playful elements (whatever they may look like). However, from a practical point of view, it must be clearly stated that the strategies mentioned in the study by (Whitton & Langan, 2018) are not limited to playful settings. A recent study with a gamified learning environment – based on the non-definition of gamification – has the potential to invoke a joyful learning experience (Staller, 2020).

On a normative level, the question of whether learning in higher education should be fun is more controversial; for example, the use of fun and playful approaches is sometimes considered inappropriate on the grounds that they undermine the academic character of higher education (Whitton & Langan, 2018). The answer to this question should - and cannot - be given at this point, since, following the (non-)definition of gamification given here, a playful element cannot always be easily differentiated and identified. When broken down to the actual practice of teachers, this means that pedagogical action is characterized by the complexity and dynamics of the teaching-learning setting. There are many possibilities to achieve specific intended effects. The art lies in transferring the processes of weighing up learners (who-dimension), the teaching content (what-dimension), the possibilities of teaching didactics (how-dimension), one's own values (self-dimension) and the specific teaching context (context dimension) into situational practice (practice dimension) against the background of the intended pedagogical goals (Staller & Körner, 2021). Gamification - as an ephemeral and unspecified tool - is thus *a* tool in the pedagogical toolbox.

4 An Example of a Design Case

We want to highlight the potential of the (non-)definition of gamification by describing a case design of a learning environment in the higher education context, that was

designed based on reflections around (a) the high context specificity of the teaching undertaken and (b) the (non-)visibility of the design elements – related to the non-definition of gamification and (c) the (non-)acceptance of the gamified elements by the students. The gamified concept was implemented in a psychology course of police recruits at a University of Applied Sciences in Germany. The concept centers around a potential crime that has taken place: the professor, that was intended to teach psychology to the students was kidnapped (fabricated) as media reports showed. The substitution to the professor is Mr. Sepur, the person standing in front of the students. He asks the students to help him developing a reflexive toolkit for police recruits, that will help them becoming more reflective practitioners. His appearance and this behavior reflect what the student refer to as “like a student”. However, he will help the students to grasp the content of the psychology curriculum within the course.

Concerning the **context-specificity** of the learning environment, planning reflections centered around the specific organizational culture of educating police recruits in Germany. Within the police training structures of young police officers, there seems to exist mechanics of command and obedience" (p. 247) with a simultaneous willingness to submit to it unreflectively (Jasch, 2019). Tendencies, which Jasch (2019) describes as the primacy of job-specific disciplining, appear to be the cause for this. The disciplining extends on the one hand to conformist behavior and on the other hand to one's own body: tattoos, hairstyles, body jewelry and clothing. In view of this organizational-structural context within the police academy and the resulting problems for professional police practice (Jasch, 2019; Schöne, 2011), the aim of the teaching concept was to create irritation within the courses in order to provide opportunities for reflection (Brookfield, 2013), specifically concerning different roles and stereotypes towards these roles.

With regard to the **(non-)visibility of the design elements** the teaching concept based on reflections about the first author's (MS) own motivations and expectations towards joyful teaching and how this may influence the learning climate within the classroom (Staller & Körner, 2021). Several years of teaching experience showed MS, that being able to creatively express himself during teaching provides him with experiences of fun and pleasure, which in turn was reflected in his commitment to the corresponding teaching-learning settings. MS was always highly motivated for the teaching, which he noticed especially when he had creative and playful possibilities for

shaping his teaching. The playful elements during teaching (e.g. keynote design, humor, references to pop culture, different forms of classroom settings) was perceived as an enrichment by the learners - and also for himself. Concerning the planning of the learning environment, these reflections showed that the gamification of teaching is a joyful aspect for him personally; however, this does not mean that all learners have to feel this way nor that they have to be aware that he is implanting some gamified design elements. For example, the selection of comic-shirts matching the current story line as well as hiding easter eggs on the keynote slides provided MS with feelings of fun and joy leading to a greater enthusiasm concerning the teaching (Staller, 2020). Furthermore, concerning the narrative and the mechanics of the gamified learning environment, it was important in the design of the course that there are possibilities for gamification, but that students were allowed to decide for themselves to what extent they want to engage with it (if they are aware of the elements, e.g. easter eggs).

This aspect of the potential **(non-)acceptance of the gamified elements** by the students was valued in the concept via the narrative and the mechanics. The procedures and rules of the (gamified) learning environment with reference to the goal that the students should achieve were introduced at the beginning of the course through the narrative of the kidnapped professor. The goal was to have the students work on a project that they would create in groups and provide – for those who want to engage with the narrative – a coherent story why this is important for them (and the kidnapped professor). In addition to the overall objectives, there were also smaller assignments (e.g. compiling a concept for de-escalating behavior in a conflict; preparation for an examination, etc.), which were introduced as "additional tasks" via narrative elements. It was important to us, that all tasks (project work, additional tasks) could also be perceived and accepted from a non-gamified perspective, since they were the regular curriculum assignments. The decision whether and how to play – and engage in the story – or not was thus left to the students on an individual level. However, even if students did not participate, they had the opportunity to experience other playful elements like keynote designs and the enthusiasm of their teacher.

A further description of the planning decisions and the evaluation of the teaching concept is presented elsewhere (Staller, 2020; Staller & Körner, 2021). In short, the results showed that an overall positive resonance towards the teaching: For the teacher, the students who wanted to play and for those who decided not to engage

with the narrative. However, the results also showed that the main positive effects were to elements, that were not directly related to the gamified environment (e.g. teacher enthusiasm), but seemed to be influenced by the approach. Finally, the narrative was important for some students; but not for others. Therefore, it was up to the students to decide if there has happened a crime (the kidnapping of the professor). Some students played, some did not – and they were not always aware that their teacher played. However, they were aware of experienced positive effects concerning the learning atmosphere within the course.

5 Conclusion

Gamification in educational contexts has potential. However, its use and its perceived usefulness and pedagogical value are dependent on what is understood as gamification. Based on our analysis that the distinction between play and games and what it is not is blurred and heavily dependent on the perspective, we argued for a non-definition of gamification. From our perspective, this would allow for the integration of initial controversial positions of the pedagogical value of gamification by opening up the space for exploration, experimentation and evaluation of a context-specific use of it.

6 References

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