



Gamification of Learning and Teaching in Schools - A Critical Stance

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Abstract

The ongoing transformation of learning and teaching is one facet of the progressing digitalization of all aspects of life. Gamification's aim is to change learning for the better by making use of the motivating effects of (digital) games and elements typical of games, like experience points, levelling, quests, rankings etc. Especially in the light of the success of Pokémon Go, multiple actors call for gamification of learning and teaching in schools as means for motivating students.

From the perspective I introduce in this paper, gamification shows itself as reversion from serious pedagogical and didactical endeavours. This threatens to lead to the replacement of teaching by gamification and the (self) degradation of teachers to support personnel. In this paper, I argue that gamified learning and teaching suspends the fundamental, subversive, and critical moments only schools can offer. Furthermore, it can lead to subjugation and isolation of students due to its inherent closed and enclosing structure. I further show how the line of argumentation of gamification advocates iterates that of progressive education.

Keywords: *digitalization, gamification, games, Pokémon Go, teaching, critical theory, Horkheimer, Arendt, Biesta, Langeveld.*

“[The game] leads us away from an actual situation, from the captivity of a besetting and oppressive situation, offers an imaginative satisfaction in passing through possibilities which remain without the anguish of true choice.”¹

– Eugen Fink: “Oasis of Happiness” (1957, p. 38)

Schools and teaching appear to be inundated with technology and moving toward digitalization. The latest call for alteration of schools and their practices is that of gamification. By making use of the motivating effects of (almost exclusively digital) games, its ambitious promise is nothing short of a liberation of learning and teaching. (cf. Richter, Raban & Rafaeli 2014)

If we look at gamification with the help of theory and philosophy of education, this unbridled enthusiasm does not hold. It becomes evident that this development puts the foundations of both schools as institutions and teaching as profession at risk. At the same time, there is an argumentative kinship

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between this approach and Progressive Education advocates. What began as a hopeful *game changer* for the strenuous practices of learning and teaching emerges as partly contra-pedagogical by actively contributing to the systematic reduction of teaching as tactful practice and schools as places that are more than places to learn – that is, places of social interaction and possibly *bildung*.

In the following, I will explicate my critical theses in three steps. Firstly, I will (1) explain how game logic and consequently gamification can be grasped from a dedicated pedagogical perspective. Secondly, I will contrastingly (2) delineate this from school logic and key specifics of teaching within schools. Finally (3) I will demonstrate the recurrence of progressive educational patterns of argumentation in the form of gamification.²

Game logic and gamification

The suffix *-fication* indicates that something is in the state of undergoing transformation to whatever precedes the suffix. Thus, gamification is the re-shaping of something, in this case teaching, into a logic of play. According to Friedrich Fröbel (and followers of the gamification approach), play is a serious practice for both children and adults; the famous quote “Play is not child’s play”³, attributed to him, underlines this (it seems noteworthy that both game and play are *Spiel* in German) (cf. Berger 2000).

In contrast to work, playing should motivate and cause fun; accordingly, everything has to become play–this is the tenor of those supporting a gamification of teaching (cf. Kapp 2012, p. 9; Sheldon 2012, p. xvi; Fitzek 2014, p. 275). However, this is not a new thought. In his 22nd *letter on the aesthetic education of man*, Friedrich Schiller argued in a similar way: “The most serious matters have to be approached in such a way that we retain the ability to instantaneously confuse them with the easiest game”⁴ (Schiller 1795, p. 95). In addition, the basic pattern of gamification itself is not a new phenomenon (cf. Fuchs 2014), it has already experienced tremendous acknowledgement in schools in the light of the digitalization of society and its institutions. This is further facilitated by reform efforts promoted by public debate that primarily associates education with the concept of learning and reduces it to this very function, ignoring meta- and para-learning activities and related, but different modes of interaction with the world. As Malte Brinkmann puts it concisely: “Playful practice and playful learning are fashionable terms of the recent learning discourse”⁵ (Brinkmann 2012, p. 20).

Different domains, aspects of life, or basic practices of human existence and coexistence (cf. Fink 1995) should thereby be reshaped following a logic that originates from play. According to Mathias Fuchs, “Gamification [is] the permeation of our society with metaphors, methods, values and attributes

stemming from the world of games”⁶ (Fuchs 2013, now 2014, p. 120). In immediate relation to that, motivational psychology aims at influencing human behaviour and action *through* gamification with the goal of voluntary and permanent acceptance of heteronomous rules of games. From a critical perspective, this can be seen as an act of subordination under a set of rules that can only be controlled indirectly by teachers, who—traditionally—are responsible for pedagogical actions such as learning and thus are the last instances controlling the school framework in which learning, *bildung* and social interaction takes place. Embracing gamification means introducing an intermediary that separates pupils from teachers’ ability to ensure a reflected education, guarded by personal experience, expertise and curricula. Moreover, a problematic act of manipulation becomes apparent when games are used to merely influence students instead of as encouragement to critical reflection. This replacement of evident pedagogical interaction with nondescript influence is currently discussed as the concept of *nudging*. (cf. Sunstein/Thaler 2008; Sunstein 2014, 2015)⁷

Play, according to Eugen Fink, is, next to work, love, death, battle/rule and education, a basic phenomenon of human coexistence, which distinguishes itself from all other phenomena because its final aim is not the ultimate objective of humankind or death, but rather lies within itself. (cf. Fink 1957, p. 23) In addition, Johan Huizinga describes play as a steady cultural phenomenon found in various areas of society. He even regards play as the source of many cultural practices. In “Homo ludens” (1938), Huizinga describes five defining attributes of play, which in the interplay distinguish play from all other modes of living:

“[P]lay is a voluntary activity or occupation,
executed within certain fixed limits of time and place,
according to rules freely accepted but absolutely binding,
having its aim in itself,
and is accompanied by a feeling of tension, joy and the consciousness
that it is ‘different’ from ‘ordinary life’.” (Huizinga 1949, p. 28)⁸

In this sense, the logic of play is fundamentally non-pedagogical—as it is fundamentally non-political and non-sexual, even when used in these contexts. Pedagogical acts, institutions, and organisations do not primarily rely on excitement, joy and voluntariness, nor do they carry their goal within themselves. Pedagogical acts are rather “impositions” (Reichenbach 2000) on the youth, and in the context of lifelong learning, of course, on adults as well.⁹ Whether or not pedagogical acts should be more joyful than they currently are is a different question and can only be answered considering the individual situation and context. It is not the primary aim of pedagogical actions to facilitate fun, but to educate.

Education however is according to Fink a basic phenomenon of human coexistence that cannot fully disperse itself from other practices yet is

neither completely in line with them. Within play, there may be structural attributes such as spatial and temporal borders and the orchestration of world¹⁰ that resemble pedagogical practices. This resemblance or mimicry is probably the reason, why the introduction of game logic into classrooms works seamlessly. With regard to both aim and mode of orchestration, there is a fundamental difference between games and education, as I will show in the following.

Fink describes the world of play as one in whose conceptualisation “the player [conceals] himself as the creator of this ‘world’, loses oneself in this creation, plays a part and has game-worldly objects and game-worldly fellow men within this game-world.”¹¹ (Fink 1957, p. 36) Orchestration within the teaching setting, on the other hand, does not aim at diversion or savor within a given spatial order and temporal articulation. It rather relies on didactical orchestration and approaches as a means of achieving education, learning and *bildung*¹² (cf. Brinkmann 2009; 2015, p. 52).

Gamification in general and serious games in particular are not clichéd processes, but rather general procedures aiming at transferring the logic and elements of play into pedagogical practices. This transposition typically follows some principles and rules, mainly:¹³ virtual point systems and a linear accumulation of different (experience) points, currencies or tokens,¹⁴ the visualisation of progress in the form of levels, hierarchically structured rankings of players, immediate or at least short-term feedbacks about the game’s progression and one’s own performance, special rewards for completing tasks and levels in the form of badges and achievements (cf. Marczewski 2015).

So far the application of gamification has mostly taken place in corporate world for the purposes of motivating employees in (private) companies. In an interview with *Forbes magazine*, Adam Penenberg states that more or less all of Fortune’s 500 listed companies apply gamification in the form of internally used games, virtual cash systems, point and rank systems, and he suspects this trend to increase immensely in the future (cf. Schwabel 2013). Also German software house SAP uses gamification in their company’s internal social network SCN (cf. Cetin 2013).

Furthermore, the public sphere is being gamified, e.g. by encouraging people to take the stairs instead of the escalator¹⁵. Transformations are taking place in which *citizens* and *employees* are transformed into *players*. Gamification also seeps into pedagogical settings: it first took the leap to pedagogical settings in the form of language learning and apps such as *Duolingo* or *Memrise*. The idea of not merely learning isolated chunks of information on a specific subject (such as in the study of vocabulary, binomial formulae, irregular verbs or chemical elements and their qualities) but whole teaching units, and subsuming entire school subjects under the logic of play, has only been formulated distinctly a few years ago. Lee Sheldon’s 2011 book *The multiplayer classroom* and Karl Kapp’s *The gamification of learning and instruction* (2012) mark the beginning of a conversion of teaching. Jane McGonigal’s book *Reality Is Broken: Why Games Make us Better and How they Can Change the World*, also published in 2011, plays another important role in this context, as it became the groundwork for manifold publications on the topic. The title is symptomatic of the self-assured and promised potential that is supposed to be released by gamification efforts. The claimed potential seems impressive considering the long-lasting experience and knowledge of how limited pedagogical efforts and teaching practices are in terms of probability/feasibility, not to speak of *success*. Karl Kapp states:

“Gamified learning can, and is, difficult, challenging, and stressful. Well-designed games help learners acquire skills, knowledge, and abilities in short, concentrated periods of time with high retention rates and effective recall. Do not think of games for learning in the same way as you think of games for children. Gamification is a serious approach to accelerating the experience curve of the learning, teaching complex subjects, and systems thinking.” (Kapp 2012, p. 13)

It seems there is nothing that could not be solved with gamification, at least concerning learning. At the same time, a market for designers and computer scientists emerges. It is now software engineers that are competent and responsible for offering tools or even organizing lesson units for teachers. Nowadays a plenitude of easy to use software and apps is available, carrying names like *Classcraft*, *Goalbook* and *Class-Dojo*. These apps allow teachers to transfer any teaching material and content to online role playing and other types of games. In this way a proximity to the lifeworld of students is established, something which is not very common (or easily attainable) in traditional pedagogical settings.

School Logic and teaching

The last mentioned argument shall serve for pointing out the contrast between play logic and school logic. A traditional attribute of school is that it deliberately does not mirror students' lifeworld, but rather offers a semi-public sphere which lies between the known, the life-worldly, the parental, and the *real society*, and thereby marks an expansion of experience (cf. Benner 2002) of its own kind. This goes back to at least Plato's *academia*. Martinus Langeveld skilfully illustrates this from a phenomenological perspective in his 1960 book *School as Path of the Child*. The consequences of a professional attitude that includes teaching about the world while simultaneously being apart from it means that the organisation of teaching is anything but trivial. Such a vocational ethos does not only demand expertise and didactical skill but also experience and sensitivity or instinct, which can be summarized as “pedagogical tact” (Herbart 1976; Muth 1967; van Manen 1991).

For a long time school has been a place where adults—professional pedagogues—have tried to tactfully familiarize children with the world by making use of isolation from the rest of the world (σχολή; scholé).¹⁶ Here, Hannah Arendt's understanding of legitimate *authority* comes into play. She defines authority as the act of taking responsibility for the fact that there already exists a world that is only new to those who have not experienced it enough yet due to their newness (cf. Arendt 2006, p. 270). In her essay *The*

Crisis of Education, Arendt explicitly positions herself against Progressive Educational delusions of three kinds. The first one is that the world (not lifeworld!) of children is categorically different from that of adults. The second one is that it is only children that are able to detach themselves from the old world and replace it with a better world, thus improving humanity in general through school education. The third and last point of her critique is directed against the assumption that the skill of lecturing and teaching is substantially more important than the knowledge of the teaching matter (ibid. p. 262 ff.), pointing to the myth of a born teacher/pedagogue. The development a practice of a stance towards the world in the sense of Arendt is therefore not one that argues from the perspective of the child, but one that dismisses such an affirmation and approximation as neglecting adults' collective and individual responsibility and authority.

Another fundamental difference between school and games is the time structure. Traditionally school has not been subject to an expectation of immediateness between action and reaction within learning environments, but rather aimed at an undefined point of realization of an educational or formational process. Max Horkheimer already criticised the loss of this quality in the 1950s:

“The pattern of education has transformed into one of processing. Processing—and this is where the difference is rooted—does not give the matter time; time is being reduced. Time, however, equals love; the matter which I give time is the matter I give love; violence on the other hand is rapid.”¹⁷ (1952: 411)

In the course of the above speech, addressing the university freshmen of 1952 in Frankfurt, Max Horkheimer refuses to define education, but it becomes evident that he sees the dimensions of social criticism and scepticism of (rushed) technological advancement are the underpinnings of education and self-formation. The goal of education is supposed to be the slow but cautious and intensive “devotion to the matter” (ibid. p. 415). Thereby, following and reconstructing ideas and concepts as process of *bildung* is crucial. This all happens without knowing the outcome or whether there is a *right handling* of an idea at all. Education in this sense realizes itself in a radically anti-technical and anti-hegemonic way (cf. Heydorn 1995, p. 137). Such thinking repudiates a functionalistic approach (in the cycle of evaluation and management) within neo-liberal reform discussions on the grounds of the interrupted and fragmented character of education and self-formation, and the fact that those arrangements are only plannable to a certain degree (cf. Pongratz 2009). This contingency in combination with the non-visibility of processes of learning and

self-formation are, in fact, constitutive for school and teaching practices within schools. By assuming that education can be mapped in the form of experience points and levels one also assumes that education and *bildung* are either radically materialistic or blended into the same process. Gert Biesta calls this development *learnification* of schools (cf. Biesta 2006), understood as mere accumulation of knowledge, disregarding every other dimension of *bildung* or social interaction.

By making use of critical theory, this example shows that school is not merely to be seen in its function as the place of learning, but as a space for the risky evocation of educational moments, that might only be fully actualized outside of school's temporal and spatial bounds. The loose couple between school and society as well as schools' structure and habituated practices, such as teaching, are the foremost requirements for such possible evocations.

Summing this perspective up, there are five characteristics of school logic that stand in radical opposition to play logic and therefore do not allow a transformation from teaching to play in regard to authority (Arendt) and *bildung* (Horkheimer). (1) The indirect conjunction to lifeworld that allows school to introduce the unknown. (2) The purpose of schools, consisting of an approximation to the status quo of the world. (3) The temporal structure that can be described as principally open to the future (and thus anti-deterministic) and (4) a resulting (vague and paradoxical) definition of the goal of education, be it maturity, critical thinking or autonomy. (5) The final difference is the prerequisite of *scholé* and its facilitation of the orchestration of teaching as means of refraining from and rejecting the unabated affirmation of lifeworld.

In the light of such a contrastive analysis, *gamification* does not seem to be a pedagogical instrument for conducting educational and teaching practices but quite contrarily a means of withdrawing from that. The dependency on "instant feedbacks" (Schwabel 2013) as well as the advancing process of *learnification* (cf. Biesta 2006; Vlieghe 2016) in simulated sovereignty (cf. Fink 1957, p. 38) form a diametric contrast to an interrupting, deferring and in its result contingent devotion to the subject matter in the mode of *scholé* and with the help of professional teachers and judgments.

Gamification as recurrence of progressive educational argumentation

Gamification as previously delineated can thus be understood as de-pedagogization of formerly pedagogical practices. It works along the lines of

Progressive Educational argumentation structures, not only with regard to its function, but also with regard to the pattern of argumentation. I will unfold this thesis historically and exemplarily based on three aspects. Gamification, like Progressive Education, (1) predominantly facilitates and demands activity instead of cognitive effort, (2) leads to the destruction of teaching as profession and (3) neglects the difficulties and diligent work of education in favour of romanticism.

Activity is a favoured topos and guiding principle of Progressive Educational rhetoric (cf. Böhm 2012, p. 12; Oelkers 2005). Concerning teaching actions, it implies that form (or reform)¹⁸ is categorically preferred to content (cf. Liessmann 2006) and thereby releases a pathetic potential among its participators:

“The little word ‘reform’ signalises awakening and demonstrates a readiness to act. It puts those into discursive offside, who hesitate. Progressive Educational rhetoric invokes a crisis which can only be solved by pedagogy, yet conveys to educators and teachers that they are being part of a meaningful project which demands their fullest dedication.”¹⁹ (Grabau 2014: 525)

Such a furore does not leave space for the careful discussion, examination and evaluation of well-known pedagogical content, methods, structures and institutions in the light of recent challenges and urgent needs. It dictates an immediate and radical change from the old and outdated. In the founding period of Progressive Education at the turn between the 19th and the 20th century, this meant renunciation from cognitive endeavours towards what is regarded a *natural, lively* and especially *active* learning. Instead of cognitive efforts, *activity* and a proximity to the lifeworld are called for. By using this rhetoric, the old and stagnated *state and drill school* is marked as outdated. The same arguments were used in the foundation documents of German rural boarding schools (*Landerziehungsheime*), which provide an astounding proximity to recent arguments in connection with school reform:

“Through the exposure to persons and things, through the opportunity for living a live-worthy life, it is supposed to educate to joyful performance of duty in diligent consideration of *world lying within pupil [Zögling]* as well as in their surrounding nature. [...] The teacher does not deliver or say anything that the pupil can find himself. Any *dead knowledge of names and figures* is excluded.” (Lietz 2001, p. 62 f., emphases added by MFB)²⁰

This extract from Lietz’ programmatic paper concerning educational and organizational principles of *Landerziehungsheime* represents these Progressive Educational lines of argumentation. The exposure to persons *and* things points to the idea of a holistic education, which always remains in the sphere of the

abstract (since no one is able to know the whole, not even those who are directly affected and present). Pestalozzi's phrase *with head, heart and hand* is often used as an illustration of this idea that serves as a form of delimitation from reductionist, logo-centric approaches to the world. The "life-worthy life" points to the objective of Progressive Education, which is an approximation to a pre-existent order of the world while simultaneously joyfully fulfilling a duty—but *to what* remains unclear. At the same time, the "world within the pupil" points to the idea of the pure and innocent child, which should form the moral basis of every pedagogical act and perhaps even to a cosmological thinking which presupposes a connection between individual and cosmological development (cf. Andresen/Tröhler 2001). The *nature* surrounding the pupil is also to be recognized within this form of education. It remains unclear however, how Lietz and his anonymous co-authors understand such an appropriation. This approach however can be considered as form of determined anti-cultural or anti-modern stance (cf. Böhm 2012, p. 19 ff.). The denominated "living knowledge" is, if not the most successful, an export of Progressive Education into the public school system of today. In this programmatic paper from 1906, a gesture or even ethos shows of what can be called an anti-intellectual tenor of Progressive Educationalists. This is nothing less than the ignorance of the collected and long-lasting knowledge of school as institutions and their inhering practices, of cognitively demanding efforts and the cautious and continuous development of didactics, for the sake of an ambitious reorientation towards *nature* and *activity* that promises vitality and joy. In a staggeringly similar way, proponents of gamification hold this very attitude against the public school system (which itself is subject to continuous change), while at the same time incessantly referring to the nature of mankind and humans' urge to play (cf. Sheldon 2012, p. 62; Kapp 2012, p. 36 f., 56, 69).

The necessary consequence of the idea of the innocent child *corrupted* by educational efforts is that one should search for its true teachers in nature (or play for that matter). This leads inevitably to the dissolution of teaching as profession. Another programmatic paper by Gustav Wyneken and Paul Geheeb from 1906, on the establishment of *Free School Community Wickersdorf* poignantly shows this:

"[The former subject matter distinguishes itself] by introducing to a past cultural epoch in a one-sided [=cognitive; MFB] manner instead of getting to know the *present* and its *life sources* und that it mediates outdated and refuted ideas for dogmatic considerations [...]. We present as the goal of our teaching to empower pupils' ability to *teach themselves*." (Wyneken/Geheeb 2001, p. 99 f., emphases added by MFB)²¹

The legitimization for the reform is limited to critique of the existing state, embodied by subject matter. The goal of teaching is described as auto-didactical, overriding or denying every difference between teaching and learning. At this point of the text a tremendous ambivalence comes apparent. Teachers demanded a certain comprehensive jurisdiction in total institutions, like boarding schools (cf. Kabaum 2014, p. 236) and at the same time stressed their respect for the natural autonomy of pupil. The students were supposed to experience this autonomy as the absolute highlight of their educational experience in the spirit of the school and through the teacher.

This way of thinking has a comeback in today's reform efforts. Christian Grabau describes this ambivalence in the context of brain research as a re-actualization of Progressive Education with reference to Winfried Böhm:

“In this, the function of brain-discourse is similar to the ‘master narrative of the godlike, unblemished and innocent child’ (Böhm 2012, p. 82), which is marked by a strange oscillation between omnipotence and impotence. One no longer participates in the ‘divinity’ and ‘naturalness’ of the child, yet one tunes his ears for the imperatives of its nature.”²² (Grabau 2014, p. 528)

A professional ethos formulated as such is problematic in multiple respects: firstly, the difference of power between adults and children or adolescents, between teachers and students, is systematically denied or re-interpreted. Secondly, a negation of authority in the sense of Arendt takes place: it negates the teacher's duty of taking responsibility for a tactful introduction into the existing world through teaching and education—full of irritating moments, new perspectives, paradoxes and actual contradictions. Instead, teachers metamorphose into *friends*, *learning guides*, *coaches*, and *tutors*. Lastly, teachers are categorically depicted as representatives of the outdated mugginess of the old (read: outdated) school. An approximation to the lifeworld of students is touted as a feasible and welcome alternative, thus exercising the wilful ignorance of the constitutive and beneficial factor of school, namely its useful difference from the lifeworld of students. Regarding gamified teaching, this means a metamorphosis of teachers to operator guides of learning machines, which will gradually replace them. Instead of factual expertise, pedagogical tact and didactical skill, the new qualification profile becomes technical knowledge and troubleshooting competency. At the same time, students are reduced to *players*. The title of Sheldon's 2011 book *The Multiplayer Classroom* indicates this reduction illustratively. From the stance of educational theory, it can thus be argued that gamified teaching deprives itself of pedagogical possibilities. Validated from a theory of pointing (Prange 2005) this means: pedagogical feedback in the sense of reactive (and tactful) pointing does not

take place within a gamified teaching because a program or game is not able to apply pedagogical-reflective judgment (cf. Brinkmann 2012, p. 384 ff.), but can only fall back on a reservoir of prefabricated feedback options in a mode of imitation. To be precise, a game cannot at all point in the pedagogical sense, because it does not operate with freedom and moralistic causality in depiction, representation and prompting (cf. Prange 2005, p. 54).

The consequence is that with gamified teaching schools as institutions are much closer to their dissolution. If school's goal is the learning fulfilment of quests within set games and their corresponding frameworks of rules, its social dimension as the practising of reasoning and justifying one's opinions in the presence of others (i.e. the exercise of reason in a Kantian sense) is abandoned and it can be entirely replaced by virtual learning environments. This is not solely an attribute of the demand for gamification, but gamification fuels the potential social isolation of students due to its basic structure. Students are subjects to an illusion of community and sociality, in the "mirror of their machines" (Meyer-Drawe 2007), which is, in the end, a virtual sociality relieved from the assessment in front of others.

As a third and last point of destructive arguments in the tradition of Progressive Education, I want to come back to the benefit of teaching in a dedicated educational setting we call school. One of the merits of such a setting is the spatial and temporal solitude, allowing for and ideally fostering of critical thinking. By fundamentally restructuring schools and teaching around a technical possibility for a production of teaching results (outcome in post-PISA terms), successes, milestones and so forth, we endanger this invaluable asset due to the consequent negligence of the fact that learning and *bildung* are painful processes (cf. Meyer-Drawe 2005, p. 28), which cannot be transferred into a harmoniously-romantic (the child as rough diamond and epitome of what is good) or linearly developing idea of world and mankind. What is more: Such a perspective alters and possibly even blocks the subversive political potential of an education, which exposes the problems of and criticises the system we are currently living in. Ways of thinking that oppose the existing societal and political circumstances may not be an integral part of today's schools—this is already hindered by the fact that schools are state bearing institutions. Yet by abiding to a presumption of a harmonious integration into a holistic and closed system, a critical stance towards such naturalizing and ontologizing assumptions is blocked in the first place.²³

This hindrance of an education which is understood as potentially resistant (exemplary: Thompson/Weiß 2008) is once again reinforced by the

gamification of teaching. In other words: *players* cannot transcend the pre-set rules of the game. They are subject to a conditional framework that excludes codetermination, contradictions or even participation and a modification of the regulating force. A game only permits actions that have been anticipated by its authors/programmers and implemented as options. Thus, implementing gamified teaching settings renders schools (even more) un-democratic. A progressive educationalist's romantic worldview marked as *natural* is replaced by faith in the accuracy of the assessment done by a particular game. For the players, though, it remains unclear which principles decide over this judgment. The teacher in turn, who metamorphoses into a tablet and app coordinator, puts himself in a position, which cannot be more fittingly described than by Kant's well-known concept of self-inflicted immaturity (*selbstverschuldete Unmündigkeit*).

Keeping this dissolution or even destruction of school and the teaching profession in mind, the replacement of expertise and didactics by natural learning, the rejection of authority and responsibility, of indirect and contingent education for the sake of motivation, directness and an affirmation of the students' lifeworld, significant parallels between the naturalizing and romanticising argumentation structures of Progressive Educationalists and gamified efforts become apparent.

Conclusion and outlook

The previous argumentation indicates that gamification is not the mere iteration of reform efforts, which reoccurs time and again within the learning discourse, but has shown that gamification proves an imminent danger to the obtained and established strongholds of school and the teaching profession as institutions (cf. Reichenbach 2013; Masschelein/Simons 2013; Türcke 2016). This endangerment is likely to progress in the future.

This hypothesis can be made plausible from a technical as well as an institutional perspective regarding educational policy. The ongoing development of portable devices like smartphones and tablets will likely play a gradually more important role in digitalized classrooms. It is imaginable that teaching settings will fall more and more under the spell of gamification, aided by virtual and eventually augmented reality. Maybe students will no longer collect Pokémon, but rather chemical elements, authors of the German idealism and other things with their smartphones and tablets. Thereby, teaching subjects become toys. Following the mantra of BYOD (bring your own device) and the progressing virtualization of school is a qualitative

improvement of virtual environments with all its comprising dangers of social isolation. This can—in a third step—lead to education policy which does no longer tries to treat the teaching profession cohesively but allows, enables or even dictates a differentiation and hierarchization of the teaching personnel. Unrealistic demands mingle together with changing popular phrases (individualisation of teaching) and foreign domains, such as political inquiries (sustainability, inclusion). Ironically, the so-called hard science subjects could be endangered first by comprehensive gamification since their contents are regarded to be easily transferable into a technical way of teaching. In a next step, this could lead to a reduction, virtualization and de facto dissolution of teaching personnel. In this context, a sufficient critique of the paradigm of design-based learning from a pedagogical point of view still seems to be lacking. A process like gamification, one could argue, enforces the subjectification of learners as *users* of a seemingly interactive, but actually mono-directional influence that works in loops of self-enforcement and pursues institutionalization and intensification of itself. Borrowing Ian Bogost's words, one of the few critics of gamification in the Anglophone sphere to discuss the fundamentals of gamification as opposed to its efficiency, "Gamification is the pursuit of more gamification" (Bogost 2014, p. 70).

From the perspective I introduced in this paper, arguing with critical theory of education and with a sceptical stance towards Progressive Education, gamification is not understood as a mere transformation of teaching, but rather as a reversion from serious pedagogical and didactical endeavours. It will thereby lead to gamification *instead of* teaching. Gamification suspends possible subversive and critical moments of teaching due to its inherent features and closed structure. At the same time, an endangerment of basic prerequisites of school takes place: a distance to the students' lifeworld, a safe moratorium that simultaneously demands cognitive efforts, fosters self-formation and enables critical thinking. All of these pedagogical aims, albeit vague and at times of paradoxical nature, are at risk for the sake of steady motivation, and satisfaction of progressing changes of the conditions of teaching and school in the context of enforced postmodernist uncertainties and a growing heterogeneity.

I have shown that proponents of gamification make use of the same topoi as supporters of Progressive Education: *activity, proximity to lifeworld, and nature*. As pedagogues, our responsibilities do not lie in opportunistic stances towards new trends, but rather in active critique and evaluation of new methods and approaches. Gamification in its current state threatens to lure us into accepting a simple solution for the utter complex and traditionally passed on

problem of teaching as application of authority and enabling-space of *bildung*. Of course, a significant distinction has to be made between pedagogically useful applications of digital and virtual learning environments and the blind following of promising means for simplification. (cf. Clark et al. 2010) That requires, however, a lot of time, research, discussion and a much more critical discourse. Such a critique of gamification should not be understood as cultural pessimism or a preserving pedagogy (cf. Hübner 2012, p. 4). We have to facilitate the debate before gamification is implemented widely, even though this causes a certain discomfort for the proponents. As Fink puts it, “To talk about the game in a *serious* manner, even with the sombre gravity of quibblers, is in the end a bare contradiction and a severe corruption of the game.”²⁴ (Fink 1957, p. 7; emphasis in original)

References

- Arendt, Hannah (2006 [1958]). *The crisis of education*. In *Between and Future*. (pp. 170-193). London: Penguin Books.
- Andresen, Sabine, Tröhler, Daniel (2001). Die Analogie von Menschheits- und Individualentwicklung. Attraktivität, Karriere und Zerfall eines Denkmodells. *Vierteljahrsschrift für wissenschaftliche Pädagogik* 77, 2, 145-172.
- Bellmann, Johannes, Waldow, Florian (2012). Standards in historischer Perspektive. Zur vergessenen Vorgeschichte outputorientierter Steuerung im Bildungssystem. Zur Einführung in den Thementeil. *Zeitschrift für Pädagogik*, 58 (2012), 2, 139-142.
- Bellmann, Johannes/Weiß, Manfred (2009): Risiken und Nebenwirkungen Neuer Steuerung im Schulsystem. Theoretische Konzeptualisierung und Erklärungsmodelle. In: *Zeitschrift für Pädagogik* 55 (2009), H. 2, S. 286-308.
- Benner, Dietrich (2002). Die Struktur der Allgemeinbildung im Kerncurriculum moderner Bildungssysteme. Ein Vorschlag zur bildungstheoretischen Rahmung von PISA. *Zeitschrift für Pädagogik* 48, 1, 68-90.
- Berger, Manfred (2000). Friedrich Fröbel. Das Spiel ist nicht Spielerei. *Spielmittel*, 5, 8-9.
- Biesta, Gerd (2006). *Beyond Learning. Democratic Education for a Human Future*. Boulder: Paradigm.
- Bogost, Ian (2014). Why Gamification Is Bullshit. In Walz, Steffen P., Deterding, Sebastian (Eds.) *The Gameful World. Approaches, Issues, Applications*. (pp. 65-79). Cambridge, MA, London: MIT Press.
- Böhm, Winfried (2012). *Die Reformpädagogik. Montessori, Waldorf und andere Lehren*. München: C. H. Beck.
- Brinkmann, Malte (2009). Üben: Wissen – Können – Wiederholen. Zeitphänomenologische Überlegungen zur pädagogischen Übung. *Vierteljahrsschrift für wissenschaftliche Pädagogik* 85, 4, 413-434.
- Brinkmann, Malte (2012). *Pädagogische Übung. Praxis und Theorie einer elementaren Lernform*. Paderborn: Schöningh.
- Brinkmann, Malte (2015). Phänomenologische Methodologie und Empirie in der Pädagogik. Ein systematischer Entwurf für die Rekonstruktion pädagogischer Erfahrungen. In Brinkmann, Malte, Kubac, Richard, Rödel, Sales Severin (Eds.) *Pädagogische Erfahrung. Theoretische und empirische Perspektiven*. (pp. 33-59). Wiesbaden: Springer VS.
- Buck, Marc Fabian (2015). Erziehung, Kompetenzorientierung und Social Engineering. In Krause, Sabine, Breinbauer, Ines Maria (Eds.) *Im Raum der Gründe. Einsätze theoretischer Erziehungswissenschaft IV*. (pp. 247-266). Würzburg: Königshausen & Neumann.
- Byung-Chul, Han (2016). *Psychopolitik. Neoliberalismus und die neuen Machttechniken*. 2nd Ed. München: FISCHER Taschenbuch.
- Clark, Richard E., Yates, Kenneth, Early, Sean, Moulton, Katherine (2010). An Analysis of the Failure of Electronic Media and Discovery-Based Learning. In Kenneth H. Silber et al. (Eds.) *Handbook of Improving Performance in the Workplace, Volume 1*. (pp. 263-297). Hoboken, NJ: Wiley. DOI: 10.1002/9780470592663.ch8.
- Fink, Eugen (1957). *Oase des Glücks. Gedanken zu einer Ontologie des Spiels*. Freiburg i. Br./München: Alber.
- Fink, Eugen (1995). *Grundphänomene des menschlichen Daseins*. Freiburg i. Br.: Alber.

- Fitzek, Sonia (2014). Why Fun Matters: In Search of Emergent Playful Experiences. In Fuchs, Mathias, Fitzek, Sonia, Ruffino, Paolo, Schrape, Niklas (Eds.) *Rethinking Gamification*. (pp. 273-287). Milton Keynes: Lightning Source.
- Fuchs, Mathias (2014). Predigital Precursors of Gamification. In id.: Fitzek, Sonia, Ruffino, Paolo, Schrape, Niklas (Eds.) *Rethinking Gamification*. (pp. 119-140). Milton Keynes: Lightning Source.
- Grabau, Christian (2014). Machtspiele. Vom Zauber reformpädagogischer Rhetorik. *Vierteljahrsschrift für wissenschaftliche Pädagogik* 90, 4, 516-531.
- Herbart, Johann Friedrich (1976 [1806]). *Allgemeine Pädagogik aus dem Zweck der Erziehung abgeleitet*. Herausgegeben von Hermann Holstein. 5th Ed. Bochum: Kamp.
- Heydorn, Heinz-Joachim (1995 [1972]). Zu einer Neufassung des Bildungsbegriffs (1972). In the same: Heydorn, Irmgard, Kappner, Hartmut, Koneffke, Gernot, Weick, Edgar (Eds.) *Werke. Vol. 4. Bildungstheoretische und pädagogische Schriften 1971-1974*. (pp. 57-158).
- Horkheimer, Max (1985 [1952]). Begriff der Bildung. In *Gesammelte Schriften, Vol. 8: Vorträge und Aufzeichnungen 1949-1973*, (pp. 410-419). Frankfurt a. M.: Fischer Taschenbuch Verlag.
- Huizinga, Johan (1949). *Homo ludens. A study of the play-element in culture*. Trowbridge/Esher: Redwood Burn Ltd.
- Kabaum, Marcel (2014). Kontrolle in der Pädagogischen Provinz. Raum und Macht in den Reformschulen Schnepfenthal und Haubinda. In Darmstädter Atheneforum (Ed.) *Macht – Herrschaft – Regierung: Herrschaftslegitimation in Geschichte und Theorie*. (pp. 235-256). Baden-Baden: Nomos.
- Kapp, Karl (2012). *The Gamification of Learning and Instruction*. San Francisco, CA: Wiley.
- Liessmann, Konrad Paul (2006). Reform. In Dzierzbicka, Agnieszka, Schirlbauer, Alfred (Eds.) *Pädagogisches Glossar der Gegenwart. Von Autonomie bis Wissensmanagement*. (pp. 236-244). Wien: Löcker.
- Lietz, Hermann (2001 [1906]). Deutsche Land-Erziehungsheime. Erziehungsgrundsätze und Organisation (1906). In Benner, Dietrich, Kemper, Herwart (Eds.) *Quellentexte zur Theorie und Geschichte der Reformpädagogik. Teil 2: Die Pädagogische Bewegung von der Jahrhundertwende bis zum Ende der Weimarer Republik*. (pp. 60-65). Weinheim: DSV.
- McGonigal, Jane (2011). *Reality is broken. Why Games Make Us Better and How They Can Change the World*. London: Penguin Books.
- Meyer-Drawe, Käte (2005). Anfänge des Lernens. *Zeitschrift für Pädagogik, Beiheft* 49, 24-37.
- Meyer-Drawe, Käte (2007). *Menschen im Spiegel ihrer Maschinen*. Paderborn: Fink.
- Muth, Jakob (1967). Pädagogischer Takt. Monographie einer aktuellen Form erzieherischen und didaktischen Handelns. 2nd Ed. Heidelberg: Quelle & Meyer.
- Oelkers, Jürgen (2005). *Reformpädagogik. Eine kritische Dogmengeschichte*. 4th Ed. Weinheim: BELTZ Juventa.
- Pongratz, Ludwig (2009). *Bildung im Bermuda-Dreieck: Bologna – Lissabon – Berlin. Eine Kritik der Bildungsreform*. Paderborn: Schöningh.
- Prange, Klaus (2005). *Die Zeigestruktur der Erziehung. Grundriss der Operativen Pädagogik*. 2nd Ed. Paderborn: Schöningh.
- Reichenbach, Roland (2000). Die Zumutung des Erziehens und die Scham der Erziehenden. In Bucher, Anton, Donnenberg, Rosemarie, Seitz, Rudolf (Eds.)

Was kommt auf uns zu? Erziehen zwischen Sorge und Zuversicht. (pp. 104-119). Wien: Österreichischer Bundesverlag (öbv&hpt).

- Reichenbach, Roland (2013). *Für die Schule lernen wir. Plädoyer für eine gewöhnliche Institution.* Seelze: Klett Kallmeyer.
- Richter, Ganit, Daphne R. Raban, and Sheizaf Rafaeli. Studying Gamification: The Effect of Rewards and Incentives on Motivation. In Reiners, Torsten, Woods, Licoln (Eds.) *Gamification in Education and Business.* (pp. 21-46) Cham/CH: Springer. DOI: 10.1007/978-3-319-10208-5_2.
- Schiller, Friedrich (1795). Ueber die ästhetische Erziehung des Menschen, in einer Reihe von Briefen. Tübingen: Cottasche Verlagsbuchhandlung. [Archived online in „Projekt Gutenberg“. URL: <http://gutenberg.spiegel.de/buch/3355/1> (6 October 2016).
- Sheldon, Lee (2011). *The Multiplayer Classroom. Designing Coursework as a Game.* Boston, MA: Cengage Learning PTR.
- Sunstein, Cass (2014). *Why Nudge? The Politics of Libertarian Paternalism.* New Haven, CT, London: Yale University Press.
- Sunstein, Cass (2015). *Choosing not to Choose. Understanding the Value of Choice.* Oxford, New York, NY: Oxford University Press.
- Sunstein, Cass, Thaler, Richard (2008). *Nudge. Improving Decisions about Health, Wealth and Happiness.* New Haven, CT, London: Yale University Press.
- Thompson, Christiane, Weiß, Gabriele (Eds.) (2008). *Bildende Widerstände – widerständige Bildung. Blickwechsel zwischen Pädagogik und Philosophie.* Bielefeld: transcript.
- Türcke, Christoph (2016). *Lehrerdämmerung. Was die neue Lernkultur in den Schulen anrichtet.* 2nd Ed. München: C.H. Beck.
- van Manen, Max (1991). *The tact of teaching: The meaning of pedagogical thoughtfulness.* Albany, NY, London, Ont.: Althouse Press.
- Vlieghe, Joris (2016). Practising as a fundamentally educational category Rethinking school practices with and against Bollnow. In Brinkmann, Malte, Buck, Marc Fabian, Rödel, Sales Severin (Eds.) *Pädagogik – Phänomenologie.* (pp. 229-242) Wiesbaden: Springer VS. [In print]
- Wyneken, Gustav, Geheeb, Paul (2001 [1906]). Programm der Freien Schulgemeinde Wickersdorf (1906). In Benner, Dietrich, Kemper, Herwart (Eds.) *Quellentexte zur Theorie und Geschichte der Reformpädagogik. Teil 2: Die Pädagogische Bewegung von der Jahrhundertwende bis zum Ende der Weimarer Republik.* (pp. 99-101). Weinheim: DSV.
- Young, Michael F., Slota, Stephen, Cutter, Andrew B., Jalette, Gerard, Mullin, Greg, Lai, Benedict, Simeoni, Zeus, Tran, Matthew, Yukhymenko, Mariya (2012). Our Princess Is in Another Castle: A Review of Trends in Serious Gaming for Education. *Review of Educational Research* 82, No. 1. (pp. 61-89). DOI: 10.3102/0034654312436980.

Web sources

- Cetin, Laure (2013). *Enterprise Gamification Consultancy - The SAP Community Network: How to Use Gamification to Increase Engagement.* http://www.enterprise-gamification.com/index.php?option=com_content&view=article&id=160:the-sap-community-network-how-to-use-gamification-to-increase-engagement&catid=15&Itemid=22&lang=en (6 October 2016)
- Hübner, Tobias (2012). *Gamifying Education. über die Kollision von Schule und Computerspiel.* Retrieved from: http://www.medienistik.de/Lab-Heft_Gamification.pdf (6 October 2016)

- Marczewski, Andrzej (2015). *48 Gamification elements, mechanics and ideas*. Retrieved from: <http://www.gamified.uk/2015/02/04/47-gamification-elements-mechanics-and-ideas/> (6 October 2016).
- Masschelein, Jan, Simons, Maarten (2013 [2012]). In Defence of the School. A Public Issue. Retrieved from: <https://lirias.kuleuven.be/bitstream/123456789/400685/1/Jan+Masschelein++Maarten+Simons++In+defence+of+the+school.pdf> (6 October 2016)
- Schwabel, Dan (2013). *How Gamifications going to chance the workplace*. Retrieved from: <http://www.forbes.com/sites/danschawbel/2013/10/07/adam-penenberg-how-gamification-is-going-to-change-the-workplace/#28642aac39e5> (6 October 2016)

¹ Transl. from German: „[Das Spiel] entführt uns aus einer faktischen Lage, aus der Gefangenschaft in einer bedrängenden und bedrückenden Situation, gewährt ein Phantasieglück im Durchflug durch Möglichkeiten, die ohne die Qual wirklicher Wahl bleiben.“

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³ Transl. from German: „Das Spiel ist nicht Spielerei“.

⁴ Transl. from German: „Der ernsteste Stoff muß so behandelt werden, daß wir die Fähigkeit behalten, ihn unmittelbar mit dem leichtesten Spiele zu vertauschen.“

⁵ Transl. from German: „Spielerisches Üben und spielerisches Lernen sind z. Zt. Modeworte des Lerndiskurses.“

⁶ Transl. from German: „Gamification [...] die Durchdringung unserer Gesellschaft mit Metaphern, Methoden, Werten und Attributen aus der Welt der Spiele.“

⁷ Due to the lack of space, no further discussion of questions of structures of power in gamification can take place here. As a side commentary, the systematic application of gamification can plausibly be used as an instrument used for social engineering within education (Buck 2015), and gamification may well be understood as a device of power, which even colonizes human communication, as Byung-Chul Han (2016, p. 70) illustrates vividly.

⁸ One could argue that there are many similarities between game logic and school logic, e.g. a dedicated time and space. Albeit this might be true for single characteristics, neither Fink’s nor Huizinga’s argumentation (emphasizing the emergent effect) is affected by this. In the same way, there may be parallels between e.g. political and sexual practices but that does not make them the same mode of being and existence.

⁹ When it comes to lifelong learning, the overall degree of voluntariness is probably much higher than in teaching in schools. The latter happens within a framework of compulsory school attendance, education laws, curricula, and syllabus, while lifelong learning is either completely voluntary (if it is for leisure or recreation purposes), or, if connected to further education, facilitates employability, human capital and so forth and thus is driven by the lack of alternatives the respective learner can choose from. In any way, there are many more degrees of involuntary participation in and between pedagogical institutions which cannot be laid out en détail here.

¹⁰ The orchestration of schools means the intentional temporal ignorance of knowledge for the sake of (Aristotelian) questioning and reconstruction of this knowledge in a social setting. The simplest instance is a teacher asking a question about a certain topic in class, although he or she clearly knows the answer. Nowadays the orchestration shows itself in the terms and concepts of “discovery learning” and the like. It is obvious that schools and classrooms are not the place where research takes place. Yet, it seems to have a motivating effect on pupils in addition to the learning process.

¹¹ Transl. from German: „[...] sich der Spielende selbst als den Schöpfer dieser ‚Welt‘ [verdeckt], er verliert sich in seinem Gebilde, spielt eine Rolle und hat innerhalb der Spielwelt spielweltliche Umgebungsdinge und spielweltliche Mitmenschen.“

¹² In this paper, bildung and self-formation are used in an interchangeable manner.

¹³ In the case of gamification, these are mostly elements from recent computer games and, so far, show mixed results in regard with their effectiveness. Empirical studies focus mostly on motivation and learning outcome in terms of grades or academic achievement. For a remarkably differentiated, yet affirmative metastudy cf. Young et al. 2012. This paper, however, does not focus on effectiveness or efficiency but aims to deconstruct the underpinnings of gamification and the consequences for learning and teaching in schools.

¹⁴ A thorough examination of the term ‘experience points’, as it is used in games, against a phenomenologically understood concept of ‘experience’ is still pending.

¹⁵ Cf. <https://www.youtube.com/watch?v=2lXh2n0aPvw>

¹⁶ The past tense used in this paragraph is indicating that with the change of school governance from an input-oriented to an output-oriented logic, the fundamentals described here are crumbling. It is an ongoing debate that is not to be laid out here en détail. Exemplary see Biesta’s essay ‘Why what works won’t work’ (2007). For a historical perspective, see Bellmann/Waldow 2012.

¹⁷ Transl. from German: „Der Prozeß der Bildung ist in den der Verarbeitung umgeschlagen. Die Verarbeitung – und darin liegt das Wesen des Unterschieds – läßt dem Gegenstand keine Zeit, die Zeit wird reduziert. Zeit aber steht für Liebe; der Sache, der ich Zeit schenke, schenke ich Liebe; die Gewalt ist rasch.“

¹⁸ In German, Danish, Norwegian, Spanish and some other languages Progressive Education is called „reform pedagogy“, in contrast to French and Italian (whose terms translate to New Education). Besides English, some other languages like Polish use “progressive” as a qualifier.

¹⁹ Transl. from German: „Das Wörtchen ‚Reform‘ signalisiert Aufbruch und demonstriert Handlungsbereitschaft. Es stellt diejenigen ins diskursive Abseits, die zögern. Reformpädagogische Rhetorik beschwört eine Krise, die nur die Pädagogik lösen kann und vermittelt gleichzeitig den Erziehern und Lehrern, an einem gewichtigen Projekt teilzuhaben, dem sie sich mit Haut und Haar verschreiben müssen.“

²⁰ Transl. from German: „Durch Einwirkung von Personen und Dingen, dadurch daß Gelegenheit gegeben wird, ein lebenswertes Leben zu verbringen, soll zu freudiger Pflichterfüllung unter sorgfältiger Berücksichtigung der Welt im Zögling sowie der ihn umgebenden Natur erzogen

werden. [...] Der Lehrer bringt und sagt nichts, was der Schüler selbst finden kann. Alles tote Namen- und Zahlenwissen ist ausgeschlossen.“

²¹ Transl. from German: „[Der alte Unterrichtsstoff zeichnet sich dadurch aus,] dass er einseitig in das Leben einer vergangenen Kulturepoche einführt, anstatt in die Gegenwart und ihre Lebensquellen kennen zu lehren und daß er aus dogmatischen Bedenken veraltete und sicher widerlegte Anschauung vermittelt [...]]. Wir stellen es als Ziel des Unterrichts hin, den Schüler zu befähigen, sich selbst zu unterrichten.“

²² Transl. from German: „Darin ähnelt die Funktion des Hirn-Diskurses der ‚Meistererzählung von dem göttlichen und makellos unschuldigen Kind‘ (Böhm 2012, S. 82), der ein seltsames Pendeln zwischen Allmacht und Ohnmacht eingeschrieben ist. Man partizipiert zwar nicht mehr an der ‚Göttlichkeit‘ und ‚Ursprünglichkeit‘ des Kindes, aber man lauscht seiner Natur weiterhin ihre Imperative ab.“

²³ In a recent interview, Alain Badiou describes “Pokémon Go” as “trap of the image” that hinders youth from reflection and rebellion or, in his terms, corrupts the corruption of youth, essentially abiding to the current state of things and the world. Cf. <http://www.versobooks.com/blogs/2842-for-alain-badiou-pokemon-go-is-the-corruption-of-corruption> (6 October 2016).

²⁴ Transl. from German: „Denn über das Spiel *ernst* zu reden und gar mit dem finsternen Ernst der Wortklauber und Begriffsspalter gilt am Ende als barer Widerspruch und arge Spielverderbnis.“