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(Video) Games in the Language Classroom

A Gamified Distance Learning Course on Gamification and Game-Based Learning for (Pre-Service) Language Teachers

ABSTRACT/ZUSAMMENFASSUNG

Gamification und Game-Based Learning, insbesondere im Zusammenhang mit modernen Technologien, werden in verschiedenen Bildungskontexten breit diskutiert. Nach einer allgemeinen Einführung in beide Konzepte befasst sich dieser Artikel mit einem gamifizierten Fernlernkurs zu Gamification und Game-Based Learning, welcher sich an zukünftige Fremdsprachenlehrer*innen richtet. Nach einer ausführlichen Diskussion des Kursdesigns, Classcraft als Gamification-Plattform sowie der gemachten Erfahrungen wird der Versuch unternommen, einige Schlüsselerkenntnisse zu verallgemeinern. Der Fokus liegt dabei auf Gamification und deren Rolle in der Hochschul- und Lehrer*innenbildung sowie ihrer Beziehung zum Fernunterricht. Als Hauptargument wird angeführt, dass traditionelle, belohnungsbasierte Spielmechanismen weniger vielversprechend sind, als ihre kreativen, narrativen, sozialen und auf den Menschen ausgerichteten Gegenstücke.

Schlagworte: Gamification – Game-based Learning – Classcraft – Lehrkräftebildung – Fernlehre

Gamification and game-based learning, especially in relation to modern technology, are widely discussed in various educational contexts. After providing a general introduction to both concepts, this paper discusses a gamified distance learning course on gamification and game-based learning targeted towards pre-service language teachers. Following a thorough discussion of the course design, *Classcraft* as the chosen gamification platform, as well as the experiences gained, an attempt is made to generalize some key insights. These focus on gamification and its role within higher education and teacher education as well as its relation to distance learning. The primary argument is that despite their proven effectiveness, traditional, reward-based game elements are less promising than their creative, narrative, social, and human-centered counterparts.

Keywords: gamification – game-based learning – classcraft – teacher education – distance learning

Introduction

In various forms and shapes, games have had their place in pedagogy and teaching for hundreds of years. In more recent times, fueled by the ongoing digital transformation, the idea has resurfaced alongside labels such as *Gamification* and *Game-Based Learning* (GBL) (GRÜN, ANTON & KÖNIG 2019: 4f.). Now, games, including video games, are a hot topic in education (and business), and "[t]eachers are bombarded with messages, research, and claims […] while receiving scant guidance about how to go about doing it" (JONES 2020: 1). However, despite their popularity and potential, games are, in most cases, not part of teacher education curricula.

Therefore, in the summer semester of 2020 at Heidelberg University (Heidelberg School of Education), inspired by the great potential of (video) games, I decided to offer an exploratory course called "(Video) Games in the Language Classroom: Gamification and Game-Based Learning" targeted towards pre-service language teachers. Initially, the course was planned as a highly interactive but rather traditional block seminar, during which we would explore a variety of digital and non-digital games and attempt to apply them to language teaching in a meaningful and principled way. In reaction to the pandemic, which is still ongoing at the time of writing, I decided to completely shift towards a team-based distance learning course that is gamified itself. Gamifying, in the widest sense of the word, key parts of the course did not only allow students to gain first-hand experience themselves, but also helped them stay motivated. In addition, the team-

based approach, as well as utilizing some elements borrowed from the gaming community, created a feeling of connectedness despite social distancing.

In this article, I will focus on my experience facilitating such a gamified and game-based distance learning course using *Classcraft* as the gamification platform of choice. In doing so, I will also reflect on the role of experiencing games and gamification as part of learning about these concepts, particularly in teacher education. Following Huber and Hutchings, it is not my goal to present universal and fully generalizable findings (HUBER, HUTCHINGS, 2005: 97f.). Instead, I will focus on my specific context and the situated experience. While this situated approach has its obvious downsides, it emphasizes the importance of considering the specific educational and social context. For example, the choices and observations presented in this paper are certainly influenced by the ongoing pandemic, as well as both the challenges and the opportunities it presents. While the majority of this paper will be devoted to discussing the specific course I taught and the choices made in designing and facilitating it, I will also focus on some more general questions regarding higher education and teacher education in an attempt to carefully generalize some aspects drawn from my specific experience.

Because I originally did not plan to conduct any particular research alongside this course, the results presented below will be based primarily on my observations, comments made by students in their ePortfolios, and the results of both a pre- and a post-course student survey. Of the 49 overall participants, 40 completed the whole course, and 36 participated in both the pre- and post-course surveys.

In the following chapter, I first provide a general primer on Gamification and Game-Based Learning as well as their application in Foreign Language Teaching (FLT). This is followed by a thorough discussion of the course I taught and insights into the use of *Classcraft* in particular. Then, I outline some key insights before presenting some conclusions and further research directions.

A Primer on Gamification and Game-Based Learning

As stated in the introduction, games have been a staple of both teaching and learning for a very long time. However, alongside the ongoing digital transformation and advances in (educational) technology, the focus on (video) games increased, and the "educational community has begun to explore the effectiveness of gaming as a learning tool" (KARAGIORGAS, NIEMANN 2017: 499) more broadly. However, not surprisingly, a large portion of the research is also targeted towards using games and game elements in corporate settings. There, gamification, using game elements in non-game contexts, is often used in employer training, to engage customers, but also to increase productivity by making repetitive tasks less boring and cumbersome (see, e.g., ROUTLEDGE 2016).

Independent of the approach, there are many positive effects commonly associated with games in educational contexts. Games are often extremely motivating, have clear goals, frequently create flow-states, allow players to utilize various strategies and visibly progress at their own pace, and they usually also provide instantaneous and continuous feedback (GRÜN, ANTON & KÖNIG, 2019: 5). In addition, they often allow players to learn by doing and by (iteratively) solving problems and challenges. In doing so, many games invite players to 'fail' and provide rewards for perseverance and being curious, creating a safe space for exploration and experimentation (see, e.g., WETTKE 2019: 13). From this perspective, some games provide what Hattie calls a "safe environment […] in which error is welcomed and fostered – because we learn so much from errors and from the feedback that then accrues from going in the wrong direction or not going sufficiently fluently in the right direction" (HATTIE 2012: 16). In addition, many games allow their players to switch perspectives and roles, providing new ways of seeing and being. They allow us to experience what cannot easily be experienced outside of the game while at the same time allowing us to do this from multiple perspectives. Of course, many games also encourage players to collaborate and/or safely compete with others without the risk of losing face. They are, more often than not, social activities.

At the same time, using games and game elements in the classroom has been critiqued for serious reasons. Probably the most common argument against games and game elements is that many games, at their core, are based on behaviorism and simple extrinsic motivation (see, e.g., CONWAY 2014). Furthermore, the risk of addiction, privacy concerns, privatization, increasing inequality, and other unwanted and/or unexpected side effects have been brought forward (see, e.g., KIM et al. 2018: 109f., TULLOCH , RANDELL-MOON 2018). However, while these concerns need to be taken seriously, they are usually linked to strictly reward-based, relatively simple educational designs. As, for example, Hung points out, "[g]amification, like many other educational innovations, is not intrinsically good or bad" (HUNG 2017:69), but everything relies on the specific design and the choices made by educators.

In the following, the two most commonly discussed approaches, gamification and game-based learning, are briefly introduced. Please be aware that the following introduction is not comprehensive by any means, but merely touches the proverbial tip of the iceberg. Due to the many intersecting fields (game development, business, education, …) and traditions involved, the terminological landscape is complex, and disagreement regarding definitions is the norm. Therefore, while I introduce universally accepted definitions common in the educational space, please be aware of possible differences when doing research.

Gamification and Game-Based Learning

When considering the use of games and game elements in educational settings, the most widely used and hyped approach is gamification. One of the most well-known definitions describes it as "the use of game design elements in non-game contexts" (DETERDING et al. 2011: 9). The basic idea is to add game elements such as achievements, rankings, or points to an existing learning environment or task in order to incentivize and motivate learners to do more. Of course, gamification is not limited to learning; for example, "[a]irline reward programs […] are an early example of gamification" (PLASS et al. 2019: 4). The goal of adding these elements, at least in many cases, is simply to make tedious or unwanted tasks more game-like and fun so that motivation is increased and learners are encouraged to keep going. It could also be argued that tedious learning tasks, such as memorizing facts, could be supported by the additional cognitive stimulation provided by the game elements.

Gamification is often only considered in relation to relatively simple reward systems such as earning points, badges, or prices. While shown to be highly effective, these mechanisms often rely purely on extrinsic motivation as well as conditioning and do not provide long-term motivation. They exploit specific psychological mechanisms, and relying too much on them could ultimately lead to over-justification effects and a situation in which one becomes "primarily engaged with the reward which subsequently eradicates and replaces the intrinsic motivation" (CHOU 2019: 347). However, many other game features can be used to gamify existing tasks without necessarily tapping into a student's reward system. For example, narratives, challenging and creative puzzles, or cooperation and/or competition could be used as well. Hence, instead of relying on reward and punishment, it is absolutely possible to pick game elements that are much more aligned with, for example, Self-Determination Theory (DECI, RYAN 2000).

Unfortunately, the actual value of gamification is hard to determine without a specific context since the idea can be applied in many different ways. However, a recent meta-analysis on the "effects of gamification on cognitive, motivational, and behavioral learning outcomes" (SAILER, HOMMER 2020: 77) suggests "that gamification as it is currently operationalized in empirical studies is an effective method for instruction" (SAILER, HOMMER 2020: 77) despite the fact that more research is needed.

Closely linked to gamification, game-based learning (GBL) is a second popular approach. At its core, GBL means using games as teaching and learning materials. More precisely "a learning task is redesigned as to make it more interesting, meaningful, and, ultimately, more effective for learning than either a nongame or gamified task" (PLASS et al. 2019: 4). Using GBL, existing materials and tasks are not just augmented with game elements, but fundamentally redesigned as games. In GBL, students do not just work on gamified tasks but play games, carefully selected by educators, to learn.

The types of games used for GBL can vary greatly. While in many cases pre-existing games are used or adapted for teaching and learning purposes, frequently (video) games and simulations are developed specifically for GBL. These so-called *Serious Games* are (video) games "with a useful purpose, e.g., for training, education, knowledge acquisition, skills development, etc." (GIRARD, ECALLE & MAGNAN, 2012: 208). While most games' primary focus is entertainment, serious games are specifically designed for a specific 'serious' purpose such as learning or training.

Depending on the specific game elements or games picked, there often is an overlap between gamification and GBL. Plass et al. provide a good example of the difference between gamification and game-based learning (PLASS, HOMER & KINZER 2015: 259):

> Consider […] the gamification of math homework, which may involve giving learners points and stars for the completion of existing activities that they consider boring. Game-based learning of the same math topic, on the other hand, even though it may also include points and stars, would involve redesigning the homework activities, using artificial conflict and rules of play, to make them more interesting and engaging.

While, from the perspective of gamification, the task, i.e., solving math problems, would stay the same, following a GBL approach, we would try to design a game that is fundamentally different from the original task, but would lead to a similar

or even better learning outcome (while possibly providing other benefits). Given the close relation between these two concepts, in the following I often simply refer to *games*, and, I apply the term to 'actual' games as well as to well-crafted gamified activities that are game-like and go beyond merely adding points or badges to otherwise unchanged tasks.

Independent of whether we are talking about gamification or GBL, game mechanics and game/gamification elements are essential building blocks for most educational purposes. Games consist of various design elements (for example, the audiovisual and narrative design) that together achieve an intended effect on the player. The most essential elements, however, are often the game mechanics behind the audiovisual, narrative, and haptic design. These are "the activity or sets of activities the player repeats throughout the game" (Plass et al. 2019: 11), and we often differentiate between *learning mechanics* and *assessment mechanics* depending on their purpose. Game mechanics define all interactions between the player(s) and the game. For example, in many board games, the result of throwing the dice will determine how many steps a player can move. Similarly, in a simple flashcard game, a mechanism could be to draw a random card and receive either negative or positive points for answering the question (in)correctly.

Though there are many debates about what game mechanics are and are not, in educational contexts, the terms *game element* and *gamification element* are often used to describe specific building blocks that can have one or more mechanics as well as other features. Common gamification elements[1] are, for example, time pressure, points, leaderboards, badges, or prizes. However, more abstract concepts such as social pressure, competition, or narratives are also often considered gamification elements. While games consist of much more than just these key mechanics, educators can take these elements as building blocks in designing their gamified activities or even completely new games.

More important, however, is the insight that game mechanics and/or gamification elements "need to be aligned with the learning goals to be effective" (Plass, Homer & Kinzer 2015: 267). Games and their elements work very similarly to all other kinds of teaching and learning activities and need to be constructively aligned with the learning outcomes and their assessment. While this seems like a rather obvious point, games are still frequently deployed for the sake of having a game and without fully understanding the various and sometimes highly complex mechanisms at play. While games are often added to make lessons more fun, it is definitely not advisable to just use them without a solid pedagogical rationale.

Since games and their psychological foundations are highly complex, a key challenge for educators is to gain a deep understanding of games and their building blocks. Only if we understand why a particular game is motivating, immersive, or captivating will we be able to utilize it and its elements to their fullest potential within our teaching. Games offer tremendous opportunities for teaching and learning, but like all other materials, "their use has to be scaffolded and planned carefully to meet student needs" (Hung, deHaan & Lee 2018: 9). Therefore, in order for gamification and GBL to be successful, educators need both various game and media related competencies and the openness to explore gamified and game-based learning and teaching (Sailer, Tolks & Mandl 2019: 10). Despite the fact that games are 'just games,' they require the same, if not more, attention and consideration like all other materials do.

Gamification and GBL in Language Teaching

Since the course discussed in this paper was targeted towards language educators, I want to briefly show why gamification and GBL are particularly suited for teaching and learning languages. While it would go far beyond the scope of this paper to give a thorough literature overview, four features of many games are intuitively very well suited for learning and teaching languages[2]: Firstly, many games are highly communicative in nature and require players to communicate effectively with each other and possibly other actors, human or not, in the game. Secondly, games provide us with an environment in which we can safely practice language and experiment with it. Thirdly, many games allow us to change perspectives, for example by taking on a new role or identity, and explore new worlds and cultures. Lastly, many games, especially digital/video games, provide learners with ample opportunity to encounter authentic language in a highly contextualized, engaging, interactive, social, and immersive environment. Of course, all of these are further supported by the general affordances of (digital) games such as autonomy, feedback, as well as clear goals and a purpose. A particular promising genre, for example, are Virtual Reality (VR)-based language learning games in which players are required to solve various challenges by using the target language in lifelike scenarios.

[1] For an overview of common gamification elements, have a look at Andrej Marczewski's famous "Periodic Table of Gamification Elements": https://www.gamified.uk/2017/04/03/periodic-table-gamification-elements

[2] Have a look at Reinhardt and Thorne for an overview of language learning affordances offered by digital games (Reinhardt & Thorne 2019).

In addition to learning the language itself, FLT also has a strong focus on exploring and understanding culture(s), cultural techniques, literature, and various other types of media. Also, given the immense popularity of games, particularly digital games, across people from all walks of life, it seems necessary to consider games and gaming not just as tools for learning languages but as complex cultural phenomena of their own. Given the rich narratives of many games and the powerful (creative) culture that has emerged around gaming, games are an exciting new text type, in the widest sense, in FLT. The power of video games as rich narratives is further increased by what Domsch calls *storyplaying* – put simply, the idea that the player is, at the same time, reading, playing, creating, and altering the narrative (DOMSCH 2013).

However, while researchers and practitioners have acknowledged the potential of (digital/video) games in language teaching for a long time, adoption progresses slowly. In two recent papers, deHaan argues that researchers have overestimated the idea of GBL without delivering actionable results (DEHAAN 2020a, 2020b). Following a comprehensive literature review, deHaan comes to the conclusion that researchers "have announced and hyped the idea of game-based language teaching, but […] have not delivered reports of carefully considered, described and sustainable implementations of language teaching with games in real classrooms" (DEHAAN 2020a: 138).

In addition to the issue reported by deHaan, many teachers and pre-service teachers (PSTs) lack experience and knowledge. Blume, for example, has shown that there is a "receptivity of PSTs towards DGBLL despite a general lack of personal experience" (BLUME 2019: 16). In other words, soon-to-be English teachers see the value of utilizing games, but they have limited experience with them. Looking at the survey data for this course reveals a similar story.

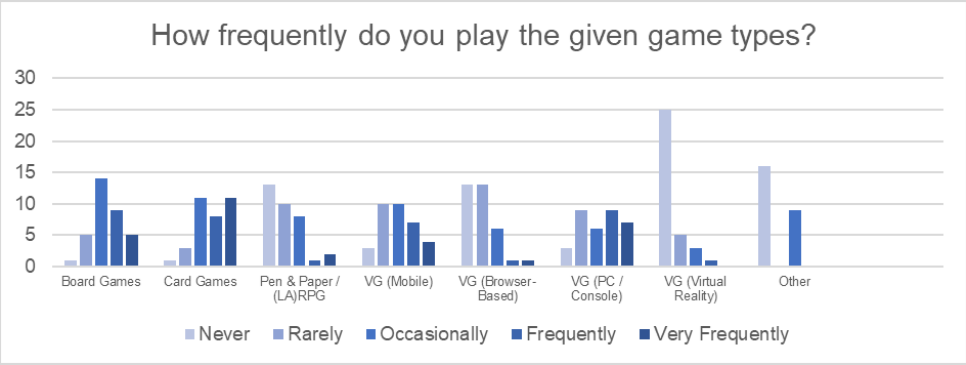

Figure 1
How frequently do you play the given game types? (n=36)

Most students reported having very little experience with gamification and/or GBL. On a scale from one to ten, students indicated an average experience level of 2.76 ($\sigma = 2$). Nevertheless, most of the students that took part in my class frequently play a variety of digital and non-digital games. Out of the 36 respondents, only three reported never playing digital/video games.

While there certainly is an interest bias at play, the survey clearly showed that many PSTs are interested in games and have personal experience with them. The only outlier is *Virtual Reality* (VR), which seems not to be widespread yet.

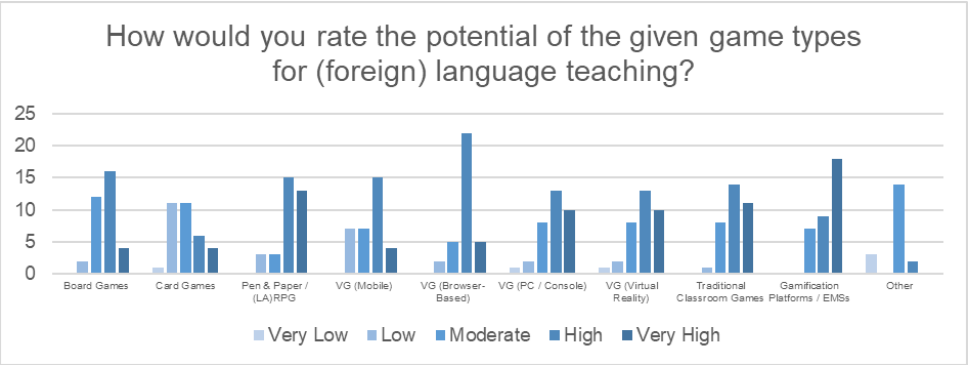

Figure 2
How would you rate the potential of the given game types for (foreign) language teaching? (n=36)

In addition to their personal experience, students were also asked to rate the potential of various game types for FLT after finishing the course. While all kinds of games were considered to have potential, students ranked *Pen and Paper/(LA)PRG games*, digital *Browser Games* as well as *Gamification Platforms/EMSs* as the most promising categories. Looking at the growing importance of gaming, the scholarly arguments made, and the data, courses on the use of games and game elements in educational contexts seem both necessary and welcome. Interestingly, despite the growing popularity of video games, non-digital games were ranked as having equal potential. This provides additional support for offering classes covering a variety of game types.

Gamification Platforms

Since the use of games and game elements has seen widespread adoption over the past few years, various products have emerged to help with employing gamified learning. While there are, for obvious reasons, no default or blueprint games for GBL, there are various subject-independent platforms that help educators to gamify their courses.

Two of the most well-known products are *ClassDojo* and *Classcraft*. While they differ in their features, both tools are targeted primarily towards schools, not higher education, and help educators gamify their classes by offering various tools and gamification elements to engage students and manage the classroom more effectively. In addition to gamification aspects, both platforms offer various tools for collaboration, communication, and task/activity management. Based on student interest (a pre-course survey indicated a preference of 83.3% for *Classcraft*), this paper explores only the use of *Classcraft.*

Educational Context, Course Design, and Lessons Learned

This section outlines the educational context of the course, its design, my rationale behind it, and several insights I gained teaching it. The course was targeted towards two groups of students: Bachelor's students acquiring credits in pedagogy and teaching methodology and students pursuing an additional certificate in information and media literacy[3]. The course was taken by 49 students studying various subjects, and by both Bachelor's and M. Ed. students with vastly different degrees of experience. I also welcomed students from both Heidelberg University and the Pädagogische Hochschule Heidelberg as well as a number of in-service teachers.

The course aimed to introduce gamification and GBL as two promising approaches within FLT. Since the course also targeted less-experienced undergrads, I provided students with the opportunity to gain fundamental knowledge and competencies in FLT as well as technology-enhanced teaching and learning. In order to account for the varying degrees of experience, students were encouraged to take their (newly gained) theoretical knowledge about teaching and learning and apply it towards gamification and GBL within the context of FLT. Furthermore, a large part of the course focused on critically reflecting potential benefits and (perceived) risks and challenges of both approaches.

[3] The Heidelberg School of Education offers an additional qualification ("Zusatzqualifikation Informations- und Medienkompetenz") during which students can gain an additional certificate by attending a number of courses.

Hence, out of the sixteen learning outcomes, framed as competencies, the most important ones were the following; "After completing this course, students will be able to:

(1) describe the principles behind gamification, game-based learning, and serious games.
(2) discuss gamification and game-based learning with regard to their potential applications in the language classroom.
(3) critically reflect on the use of gamification and game-based learning in educational settings."

Of course, there were additional learning outcomes targeting both additional practical and theoretical aspects. Furthermore, as the title suggests, the course, while featuring all major types of games, focused on video games as well as gaming culture.

Since students, as the pre-course survey showed, did not have extensive experience with games in educational or academic contexts, a key consideration was to allow students to experience games and gamification themselves. This was particularly important as most students have very little experience with games as a subject of academic inquiry – even those studying languages and literature have rarely systematically analyzed games regarding their content, design, and mechanics. However, this meta-understanding of games is key to using them effectively in teaching and learning. Ultimately, similarly to how a literature scholar has to read, educators interested in unlocking the potential of games need to play. Especially in teacher education, following Geißler's principle of the so-called "pedagogical biplane" (Ger. *Pädagogischer Doppeldecker*), it is beneficial if students are taught using the same approaches and methods they are learning about, providing them the opportunity to experience them themselves (Geißler 1985). Hence, large parts of the course were gamified using approaches commonly seen in schools.

While the course was initially planned as a hands-on block seminar spanning two weekends, due to the pandemic, I made the decision to shift to a remote format with both synchronous and asynchronous elements. Of course, this change, especially within a short period of time and without much prior experience on the students' side, introduced various challenges. Firstly, the decision added even more layers of heterogeneity as many students were faced with additional constraints and challenges, such as insufficient access to technology or less time due to care responsibilities. Secondly, in a remote environment, it is harder to facilitate opportunities to experience a variety of games. This is not just linked to the fact that students are not physically in one place, but also to the available technology. For example, I had planned to experiment with virtual reality games, but only very few students had the required hardware readily available. Of course, similar considerations regarding available technology, also considering the socioeconomic situation of students, would need to be made in any educational context. Finally, and most importantly, the shift introduced a number of social challenges as it became much harder for students and facilitators to get to know each other, collaborate, communicate, and form a meaningful learning community. While learning communities, under any circumstances, "have an essential place in university settings" (Samaras 2008: 87), they seem particularly important given the situation. As many students and instructors are forced to practice social distancing, it is necessary to make an effort in building communities whenever and wherever possible to help not only with learning but also with feeling socially embedded.

Therefore, I came up with three guiding principles for course planning and teaching. Firstly, students should be able to take the course either individually or as part of a team. Secondly, students should be able to take the course at their own pace, but at the same time, the course should not feel like an indefinite self-learning course, but like a shared experience. Lastly, students should be able to explore, experience, and reflect on as many games as possible and experience gamification themselves. Being fully aware that the first two principles, at least at first glance, lead to almost mutually exclusive requirements, I came up with the following course design that attempted to accommodate as many of the requirements as possible.

The seminar ran over the course of nine days (two full weekends and the days in-between) and featured ten mostly independent modules. These covered a wide range of topics such as traditional approaches and classroom games, video games, assessment and feedback as well as game development. Instead of going deep, I wanted to provide students with a wide overview before encouraging them to focus on a particular aspect. Looking at my choice of modules and topics, the post-course survey revealed that there was no consensus about which modules worked best or worst. Interestingly, some topics, particularly "Video Games: Narratives and Culture" and "Game Development" were equally often named as both the most enjoyable and least enjoyable. While the internal structure and content of individual modules certainly have a large effect, I take this as an indicator of how diverse the group of learners and individual interests were and of the importance of offering a wide array of learning opportunities.

The modules were designed to be finished in four days (the two weekends), but students were free to use the whole week. Each module consisted of a set of tasks and (reflective) exercises, including one or two *Classcraft* quests (more on that later), and a set of materials. These modules, with the exception of the quests, were delivered using *Moodle* as the

primary LMS (Learning Management System). While the tasks and quests were generally designed with teams in mind, they could also be worked on individually. In order to support individually working students, I added hints indicating what they should focus on if working alone. Furthermore, I purposefully made students share results with the whole class, not just their team, to also allow students working alone to benefit from the work of the others. In general, all modules followed a similar internal structure. They started with reflective exercises focused on previous knowledge and experiences before exploring new theoretical and practical ideas. In many cases, students were asked to try a game themselves or watch recorded gameplay. Towards the end, students were invited to develop their own ideas and find materials to share with their peers. The modules followed a similar structure on the macro level, starting with a module focused on previous experiences and expectations while ending with a module on game development.

While these modules were designed to be worked on asynchronously or synchronously in teams, we also held eight synchronous sessions, one at the beginning and end of each day. These sessions, conducted via *BigBlueButton*, had a twofold purpose. Primarily, they were meant as an introduction and reflection of each day. For example, in the evening sessions, I invited students to have a look at what others did during the day and provide feedback. However, they also served as both a space for meeting everyone 'in person' and to keep the spirit of a shared experience that is temporally situated alive (see BUSSE & KLEIBER 2020: 325). Due to the large size of the course and most students attending, I chose to organize these sessions similarly to how *Twitch* streams are operated, heavily relying on the chatbox for interaction and an audience-focused style of presenting. While I expected only little interaction given the chat-only approach, I saw an average of 210 messages per session. This fairly high number of public messages is clearly linked to various interactive exercises and participation prompts given to the students. In order to fulfill the self-paced learning requirement, these sessions were recorded and made instantly available via the LMS. The immediacy of publication was pointed out multiple times as crucial since it allowed students not working alongside a team or the recommended timeline to stay in touch with the community and with how the course progressed.

For assessment purposes, each student had to prepare an ePortfolio based on the modules, the synchronous sessions, and a final capstone project. For this project, each student had to individually prepare and present a gamified or game-based lesson. These projects, consisting of a short video presentation and a written report, were peer-feedbacked and added to the portfolio. While the portfolios themselves were individual and private, many tasks also required students to post their findings to a shared *Padlet* which served as the course's collective memory. As key learning outcomes were linked to reflection, and the course's open structure allowed for different learning products, portfolios seemed most suited and well-aligned.

As stated before, students were encouraged to tackle the course in small teams. To help with finding suitable teams, both in terms of interest and availability, I created a survey about a week ahead of the course in which students were able to tell me their preferred times and interests. Based on this, I assigned students, as best as possible, to teams. Students were also welcome to form their own teams. While the teams were encouraged to self-organize, I set up a *Discord* server[4] and created both a voice/video and a chat channel for each team. Despite it being a voluntary add-on, it was welcomed by most students and more than 850 public chat messages were sent. Nevertheless, many teams switched over to other platforms and utilized various collaborative tools. To help with *Discord*, two students (one was an experienced moderator) volunteered to help other students, and to organize the server. In addition to *Discord*, each team was registered in *Classcraft* (see below). Based on the post-course survey, about 92% of students worked as part of a team. Looking at the survey, many of those working in teams pointed out that this was key to their success and that they enjoyed working with others, despite everything being remote, a lot.

In terms of gamification, the course featured four major game elements facilitated using *Classcraft*. *Classcraft* is an Experience Management System (EMS) and classroom management platform following a "motivational approach […] based firmly on Self-Determination Theory" (CLASSCRAFT 2020). While *Classcraft* could be considered a gamification platform, it has also been described as "a role-playing game that was developed for classroom management" (SANCHEZ, YOUNG & JOUNEAU-SION 2017: 497). At its core, it offers a rich fictional fantasy world, including a beautiful map, a variety of game mechanisms, and various authoring tools for adding rich educational content.

Within the world of *Classcraft*, students create their own fictional characters, join teams, earn experience points (XP) and gold coins, and embark on story-driven learning quests. In addition, *Classcraft*, which is designed to be used in physical classrooms and with high school students, offers various classroom management tools. Using *Classcraft*, students finish quests or other tasks, not necessarily within *Classcraft*, and are awarded XP by their teachers, peers, or the system. Using these rewards, they can develop their characters and, for example, 'buy' cosmetic upgrades and powers.

[4] Discord is a popular instant messaging and voice/video chat solution. While Discord is GDRP compliant, there are still privacy concerns. Students were invited to use Discord using nicknames, and participation was voluntary.

These powers, for example, the ability to heal teammates, can then be used during quests or boss-fights, which are interactive multiple-choice quizzes in which correct answers hurt a fictional enemy and wrong answers hurt the player and/or the team. On top, there is a leaderboard showing the 'best' teams in terms of their experience gained. Overall, *Classcraft* is modeled after common role-playing games, and it feels very familiar to anyone who has experience with either tabletop role-playing games or digital (MMO)RPGs[5]. While I generally consider *Classcraft* to be a gamification platform, it could be viewed as a game in its own right given that it features both a gameworld and various game mechanics.

While the team behind *Classcraft* argues that "[b]y fulfilling players' needs for exercising control, developing competency and experiencing relatedness, games are effective external systems to foster intrinsic motivation" (CLASSCRAFT 2020), others have argued that *Classcraft* turns the classroom into an "algorithmically powered reward and punishment panopticon" (KROMMER 2018, transl.) with an all-powerful teacher in control. I agree with Krommer if educators focus too heavily on the platform's reward mechanics. However, I also believe that there are good arguments for relying on these simple mechanics from time to time if done carefully and with good measure. More importantly, I think the strength of *Classcraft* lies in the fact that educational materials can be easily embedded within a rich narrative. While the platform provides a starting point, educators are free to write their own stories to deeply contextualize tasks and materials, motivating students, and cleverly linking content.

Fortunately, *Classcraft* can be used in many ways and provides great flexibility regarding which features are used. For this course, I focused on the four major mechanics in *Classcraft*: characters and teams, experience points, live 'boss-fights,' and quest-based tasks. After signing up for the course, and possibly joining a team, students were invited to *Classcraft* and created their own fictional characters. While I assumed that university students would not engage with this too seriously, the majority of my students customized their characters and actively developed them alongside the course. Many students even included their characters in their ePortfolios, showing off items and pets, virtual animals earned by gaining experience. Similarly, all teams happily named themselves, and over time, developed their unique team identity, which was also performed in live sessions.

Figure 3
Constanze's avatar and her team

In Figure 3, we can see one student's customized avatar and her pet as well as her team showcasing modified characters in the background. On the left, we can see her health points, attack points, XP, gold, and current powers. Having teacher access, I could now award her or her whole team, using the orange plus button, with additional XP or gold.

During live sessions, we used boss-fights, simple interactive quizzes, for both entertainment and for reinforcing key points. The live interaction with *Classcraft* as well as me actively including the teams and the development of their characters were named as key reasons for attending the synchronous live events rather than just watching the recordings.

However, most importantly, each module contained one or more quests, which are story-driven collections of interconnected tasks. In Figure 4, we can see the map (the gameworld) containing various quests on the left and one particular quest on the right. During a quest, students work through a story that consists of various steps placed in a fictional world.

[5] Massive Multiplayer Online Role-Playing Games (MMORPGs) allow players to interact with hundreds or thousands of others who play simultaneously in one world.

Each step drives the story forward and contains materials as well as tasks and exercises. From the educator's perspective, *Classcraft* behaves like any other LMS and offers a variety of available content types and learning activities. Notably, it is possible to add fora to individual steps, allowing students to communicate and collaborate. Most importantly, there can be different paths connecting steps, allowing for differentiated learning paths. Students finishing a quest are rewarded with XP and gold coins, allowing them to buy additional items for their characters.

Figure 4
The left side shows part of the gameworld while the right side depicts an individual quest.

Using quests was a huge success, and students quickly asked for additional ones as, due to time constraints, I only designed one or two quests per module. Contrary to designing traditional tasks, quests require more time as they are ideally embedded within the storyworld while providing various differentiated paths to completion. As students were engaging much more deeply with these quests than initially anticipated, I created supplementary side quests featuring interesting material while the course was progressing. As part of one module, students were also asked to create their own quests, which led to a number of highly creative additions. Some of these student-made quests were then, during the course, made available to the others on the platform. Unfortunately, for this course, I did not write a comprehensive meta-story due to time constraints. While this would have potentially led to more immersion, I decided to write short stories with various degrees of elaboration for each quest.

Overall, students reported that quests were much more engaging than regular tasks. One comment really stuck with me: reflecting on his own learning during the course, a student said that completing a learning quest before going to bed was extremely satisfying and provided him with a much larger sense of achievement than just solving a regular task. Asking him why that might be, he assumed that it was because his, and his character's, progression was much more visible and tangible to him when doing quests. This makes sense as well-designed *Classcraft* quests do not only heavily contextualize both tasks and materials in the narrative, but also visibly situate progress within the gameworld. Nevertheless, novelty bias could play a role, and possibly well-crafted, non-narrative learning paths would lead to similar results.

As predicted by the literature, despite their interest in developing their characters, my students reported that their motivation for earning XP and gold decreased significantly over the course of the seminar. While initially, they were eager to receive XP for completing tasks, e.g. posting to *Padlet*, they soon focused much more strongly on the narrative and social aspects of *Classcraft*. This experience, and the following reflection, is a very good example of how and why it is extremely helpful to experience gamification and GBL firsthand.

In addition, I took inspiration from the gaming community for various elements of the course, namely a *Twitch*-inspired presentation style and the adoption of *Discord* as a synchronous communication solution. In the same notion, albeit not directly linked to games or gaming culture, I tried to create an extremely open, creative, and fun atmosphere. While it can be challenging to find a good balance between a 'serious' higher education style of teaching and a more relaxed atmosphere, I believe that the more casual style, including students creating clever memes about the course, significantly supported building a learning community despite the lack of physical social interaction. For example, in the post-course survey, students pointed out that the relaxed atmosphere helped them cope with the overall situation and encouraged them to think outside the box.

Of course, teams were also encouraged to play games together and discuss them as part of the modules. Unfortunately, when it comes to testing games, due to distance learning, I was not able to provide my students access to as many games

and gaming platforms as I would have liked. To compensate, I provided each student with a random video game[6], framed as a reward for completing a task, for them to try and reflect on in their portfolios. I also tried to join every team at least once to play alongside them online. To make our experiences accessible to other students, we also recorded a number of Let's Play videos followed by a short discussion of our impressions. Impressively, some students went as far as creating their own games, which we then collectively had a look at.

In conclusion, I was baffled by how actively and seriously my students engaged with *Classcraft* and how open they were to the idea of doing serious research and learning in a fictional fantasy world. While initially I only wanted to use *Classcraft* as part of my course in order to demonstrate it practically, it shortly became front and center. Also, *Classcraft* and the focus on teams and their identity, in the post-course survey, was praised for helping with building a strong learning community. However, despite all of the positives, a few students remarked that using a new and unusual approach on top of the already unfamiliar distance learning situation overwhelmed them. Furthermore, while students working through the course alone (about 8%) were able to use *Classcraft*, they had a fundamentally different experience compared to those working in teams. Nevertheless, even those students reported that being part of the game made them feel more connected and part of the larger community.

The Bigger Picture – Generalizing Our Experiences

In the following, I generalize some insights into gamification in higher education, *Classcraft*, and distance learning based on my experiences facilitating this course. While I am aware of the extreme context sensitivity of teaching and learning, I believe that several insights gained can be meaningfully transferred into other contexts. The three topics discussed, following Huber (HUBER 2014), have been chosen following my observation that gamifying parts of my course, somewhat unexpectedly, worked really well, and because students emphasized that the approach taken helped them cope with the isolated distance learning situation. Nevertheless, following the situated approach outlined in the introduction, these insights still need to be understood in the context of this particular course and my own and my students' experience.

Gamification and GBL in Higher Education and in Teacher Education

In a systematic review of the literature, Subhash and Cudney conclude that the "successful implementation of gamification and game-based learning give reason to be enthusiastic about their application in higher education across various countries/student cultures, subjects, and formats" (SUBHASH & CUDNEY 2018: 205). However, they also found that the most commonly used elements are points, badges, and leaderboards in gamification and graphics, points, and levels in GBL (SUBHASH & CUDNEY 2018: 205).

While it is encouraging to see that new and exciting approaches are adopted in higher education, I believe that there is still much room for adopting game elements beyond rewards and levels. While basic gamification elements work well for increasing motivation, at least in the short-term, they do not have the potential to change how learning and teaching happen fundamentally. Essentially 'tricking' students into working more rigorously, similarly to how gamification is often used in businesses, might help with reaching desirable outcomes and possibly more satisfied students, but rarely promotes self-regulated, reflected, and intrinsically motivated learning.

While I do not want to dismiss these approaches, I see much greater potential in adopting elements and games that foster creativity, changes in perspective, and collaborative co-creation. Furthermore, even though 'playing games' and higher education do not seem to go well together, I believe that it is absolutely possible to have meaningful academic discussions about serious topics despite being in a more fun and unusual learning environment such as a game. In addition, as games, both digital and non-digital, are highly complex, they could be very interesting learning products that allow students to showcase a variety of skills and competencies. For example, one of my students, after making sure that he really was allowed to do it twice, designed a differentiated, story-driven language learning game within *Minecraft*, demonstrating not only theoretical knowledge about language acquisition, but also great creativity and technical skills.

Thinking about teacher education, two additional points come to mind. Firstly, as games and digital culture are becoming increasingly important, teachers need to develop a wide array of competencies around games and gaming culture. Secondly, as there are not only interesting games for most subjects but gaming often also helps with developing other

[6] It is possible to bulk-buy large quantities of random video games for little money from online game resellers.

competencies such as communication and critical as well as strategical thinking, (future) teachers should be made aware of their potential. To name just one example, Qian and Clark came to the conclusion that GBL could be fruitfully used in promoting 21st-century skill development (QIAN & CLARK 2016).

Classcraft in Higher Education

Classcraft was not designed with higher education in mind, and its fantasy theme does not make it an obvious choice for most courses. While *Classcraft* worked well for my highly motivated students and me, I do not think that it should be considered an option for higher education in general. Besides the issue of its very specific theme and focus, there are three major roadblocks, namely, recurring costs, vendor lock-in, and data protection. While commercial solutions are not *per se* problematic, recurring costs are a considerable hurdle and also restrict the use of *Classcraft* to institutions able to afford it. Furthermore, while *Classcraft* integrates with many services, it is relatively hard to import and export materials and 'courses,' making the transition from a traditional LMS to *Classcraft* and back a challenge. Finally, *Classcraft* cannot be hosted locally, and many teachers and students will rightfully question whether an outside entity should manage their learning data. In my course, I solved this issue by allowing students to not participate in *Classcraft* and by manually creating pseudo-anonymous accounts for them. Of course, this solution does not scale well and leaves many questions unanswered.

That being said, I believe that the game itself, particularly the idea of having story-driven quests as learning paths and the option of changing perspectives by means of taking on a character, is very well suited for higher education. Although there is no ready-made solution as of now, these exciting core mechanisms could be easily replicated in a more general way, which would allow educators to craft a learning experience tailored towards their specific needs.

Gamification and Distance Learning

Even though online gaming has technically been around since the 1980s and I have lots of personal experience with it, I initially had doubts about whether this class would work in a distance learning environment. During initial planning, I had envisioned multiple busy rooms with students playing everything from traditional board games to cutting-edge VR titles and discussing how these games might be later used in a language classroom. I imagined how I would award students with XP and how we would have the team leaderboard on a large physical screen.

Looking back at the course, I do not only believe that my doubts were unjustified, but that the gaming-inspired, team-based, and gamified approach helped the course succeed. Both *Classcraft* and *Discord*, according my students' and my observations, tremendously helped with building a group identity and with feeling more connected despite the physical distance. The game, and especially the interactions, both collaboration and rivalry in and between the teams, created coherence despite the asynchronous and distant nature of the course. Of course, playing games together was another very welcome social interaction in times of social distancing. In addition, the gamified approach, focusing on teamwork, contextualized learning, motivation, and making learning and progress explicit and visible, tackled precisely those problems that are usually associated with distance learning.

Conclusion and Future Directions

Going back to the introduction, neither gamification nor GBL are new concepts. They are also, despite all of the recent hype, not an easy solution for complex educational challenges. However, as has been shown in the general introduction and in my discussion, they have a huge potential as an additional tool in an educator's toolbox, not just in primary and secondary schools, but also in higher education.

If games and gamification elements are carefully and skillfully embedded into the educational design, they can motivate students and open up new perspectives and new forms of creative collaboration and co-creation. However, educators need to be mindful of all consequences, intended and unintended, that might arise from utilizing games (SAILER, TOLKS & MANDL 2019: 10). This is particularly true for those gamification elements that exploit our students' reward systems and draw attention away from what is actually important.

I hope that more educators, myself included, find the courage and resources to experiment with the more creative, narrative, social, and human-centered side of gamified education. While it has already been shown that traditional approaches to gamification, despite some of their shortcomings, work, I firmly believe that games, in higher education settings, have lots more to offer than incentivizing students to do more.

Declaration of Conflicting Interests

Classcraft Studios Inc. provided my students and me with access to *Classcraft Premium* free of charge for the course duration. However, I am not affiliated with the company in any way, and there have been no conditions, such as favorable treatment of any kind, linked to providing this service.

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