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GAMIFICATION

Tertiary Learning Usage of Tabletop Roleplaying Games

Affordances and challenges

In service of broadening the arsenal of pedagogical tools available in postsecondary classrooms, this study reviews the state of theory and practice in usage of tabletop roleplaying games (TTRPGs) in higher education. It is firmly situated in the context of constructivist approaches seeking to enhance student learning. Using TTRPG-based approaches, however, presents significant challenges, not least of which are student unfamiliarity, cognitive load, and resistance, as well as additional instructor workload. This study seeks to aid instructors in determining how best to approach the use of TTRPG-based teaching while focusing on using the strengths of TTRPGs to help facilitate learning.

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Introduction

This chapter is focused on exploring the theorization and current usage of tabletop roleplaying games (TTRPGs) in university classroom spaces. It thus combines a literature review with consideration of what seem to be productive directions for the immediate future in both research and classroom practice. The initial focus is on situating TTRPGs in tertiary education in the context of games-based education in general and on discussing constructivist educational theories underlying such approaches. Following this, the chapter considers particular affordances and challenges involved in TTRPG usage and reviews a variety of implementations that have shown themselves to be useful in college and university classrooms. Finally, it examines promising avenues for current and future tertiary educational tabletop RPG practice and research.

Playful approaches in higher education include games but also involve many other elements such as alterations of mental or physical space (Nerantzi 2019; Haughton & Sarwar 2019), units training playfulness and creative approaches (Loudon 2019), and use of physical materials in creative explorations (Williamson 2019). Games are only a subset of playful approaches, and scholarship on play highlights that there are always potential conflicts between *ludus* (more rules-based play) and *paidia* (more improvisational, free play) (cf. Callois 1961). Essentially, these are poles between which those who play move from more untrammelled paidia towards more formalized, rules-based ludus. Professionally designed games will tend to have an emphasis on ludus, but exposure to different game types is helpful in realizing that many games are much closer to pure paidia. In a classroom context, instructors are always faced with tensions between these poles, but, outside of extremely free classrooms, instructors are going to have to apply principles of ludus to a greater extent. Nevertheless, university educators should consider that the introduction of more elements of paidia is a very useful corrective to the dangers of over-solemnizing our work. Indeed, instructors looking to roleplaying-based educational methods are seeking something that retains enough ludus to control the educational direction, while also permitting paidia to break out in the classroom, facilitating moments of generative learning. As noted by James (2019) and others, resistance to and unfamiliarity with the use of such approaches remains an obstacle to any playful higher educational pedagogies that all instructors need to confront when implementing any sort of educational play.

The State of Educational Play

Although digital gaming has received a greater research focus than non-digital RPGs, non-digital gaming has recently been studied in educational contexts. Non-RPG tabletop games have been used in a variety of contexts, ranging from veterinary medicine, astronomy, nursing, and chemistry to finance and literature (Bayeck 2020). In addition, well-known professional games have been used to teach computational thinking (*Pandemic*) and to deepen thinking on uses of play in education (*Gloom*) (Bayeck 2020; Lean, Illingworth & Wake 2018). As seen in Pillay and James (2012), such games have also been used to help develop cross-cultural competencies following the mapping, bridging, and integrating model, through the formation of cross-cultural teams involved in a bridge-building game. Meanwhile, Perry and Robichaud (2020) taught ethics using a desert island roleplaying simulation. Moving more directly towards full roleplaying games, live action roleplay (LARP) has been the focus of recent work by Simkins (2015), Stenros and Montola (2010), and Harviainen et al. (2018). Nordic LARPs in particular have received educational grants and have been used in specifically educational contexts such as the Danish Østerskov Efterskole (Stenros & Montola 2010).

Tabletop games of all sorts have been used to practise skills in classroom and generalized instructional situations. Skills including critical thinking abilities, communication, and collaboration have been practised in classroom situations, such as those described by Hayse (2018), and in library training, such as in Giles et al. (2019). Students in Hayse's research reported generally feeling that the game-based activities increased engagement and specific skills. Hayse (2019) notes the complex interplay between tension and flow in classroom games. By contrast, Giles et al. (2019) discussed use of a card game modelled on *Apples to Apples* and *Cards Against Humanity* to orient transfer students. Notably, many students already recognized the activity as a variant on an existing game, lowering stress. Although students learned content about using the library, they were still able to focus on the play while interacting with other transfer students.

Tabletop games have also been used for content instruction. Hayhow et al. (2019) described the creation of a board game to teach the property life cycle. The resulting game, *Construct-It*, was essentially a trivia game. Even where a board game is not heavily modified, such as with Mewborne and Mitchell's (2019) use of the Eurogame *Carcassonne* to teach geographic concepts, the implementation can be. In their case, players might be required to implement certain geographic concepts during their gameplay, and to document and reflect on content and vocabulary. Ntokos (2020) combined multiple forms of gameplay, including roleplaying games, board games, and videogames, in an instructional module for students studying coding. Students went through a brief roleplaying session in a haunted house drawn from the board game *Betrayal on the House on the Hill*. After completing play, students would have to code everything they experienced, thus translating their own TTRPG experience into effective video game code.

Other notable uses of gaming content instruction were the project of Tilton (2019) and the Reacting to the Past curriculum (Watson & Hagood 2018). Tilton (2019) studied the use of two social deception games, *Are You a Werewolf?* and *The Resistance*, in several sections of a composition and communication course. Tilton posited that such games can work in the classroom as long as there are clear assessments, multiple forms of relationship between students, instructors, and objectives, and evidence of either improvement of skills or relation of abstract ideas to concrete action and reflection. Finally, Reacting to the Past (Watson & Hagood 2018) involves live action roleplay with a competitive focus in order to help students understand historical events.

Because the usage of TTRPGs in the tertiary classroom often requires significant restructuring, it is important to consider both the ways in which these games relate to traditional educational theories' key ideas and the specific affordances and constraints that affect them. Greenhaigh (2016), whose research focuses on ethics education in French language studies, suggests that there are two broad affordances specific to TTRPGs: openness and flexibility. Hammer et al. (2018) outline general relationships between major educational theories and roleplaying games generally, discussing behaviourist, cognitivist, constructivist, and sociocultural/social constructivist theories, and mapping particular approaches to games with the theories. They suggest five broad affordances of RPGs that connect directly to such learning theories: (1) portraying a character; (2) manipulating a fictional world; (3) experiencing an altered sense of reality; (4) supporting collaboration through shared imaginative spaces; and (5) learning through making RPGs. Their review also mentions transferability issues, gamification, and the common practice of debriefing so extensively used in LARP.

As noted, significant work has been done on games and education within the digital sphere, such as the work of Polin (2018). Using the example of the game *DragonBox*, Polin pointed out that the same game chassis can be used differently depending on the form of mediation involved. She examined the different ways in which three particular virtual worlds dealing with environmental or scientific concerns affected the educational experience of students, ranging from a greater to a lesser 'game' component within the virtual environment.[1] Two particular elements stand out from this study. First, there is a suggestion that, in order to be truly constructivist in use, games in the classroom have to permit adaptation. Second, the study notes that many of the virtual games had run out of funding: thus, such funding problems might be lessened by substituting TTRPGs for digital RPGs.

Baviskar, Hartle, and Whitney (2009) posit that classroom practices claiming to be constructivist may not actually successfully involve truly constructivist practice. They identified four fundamental elements, in addition to being learner-oriented, that constitute constructivism: eliciting prior knowledge; creating cognitive dissonance; application of the knowledge with feedback; and reflection on learning. As Polin (2018) mentions, game-based educational activities present good opportunities to create all four elements. Indeed, the shift from other forms of classroom learning to a game-based activity is itself a method of facilitating cognitive dissonance, forcing students to confront, at the very least, the problem of using what they know in an unfamiliar context. Likewise, the feedback cycle and after-game debriefing are useful for allowing feedback and reflection on learning.

Tabletop Roleplaying and Tertiary Education

While TTRPGs have not been as prevalent in research, the literature does present a variety of approaches to using TTRPGs educationally. For example, Hammer and Heller (2012) used the game *Ars Magica* by allowing historical research to trump game rules, allowing students to 'rules lawyer' themselves to more engaged learning. Geller-Goad (2015) similarly taught Latin grammar and prose style through a semester-long *Dungeons & Dragons*-style game in which students took on roles of Greco-Roman mythical characters to combat a scheme of the Sphinx by demonstrating subject as well as historical knowledge. At pre-collegiate levels, other recent examples of TTRPG usage include using a modified *Pathfinder* RPG system to help middle school students immerse themselves in the short story 'The Most Dangerous Game' (Cook, Gremo & Morgan 2017) and using TTRPGs to teach storytelling styles (Zalka 2016).

Other suggested implementations of TTRPGs are described by Bell (2017) and Gressick and Langston (2017). Bell (2017) discusses an introductory philosophy course in which each participant had a personalized learning management system page with a traditional RPG character sheet describing interests, abilities, and resources. The course material was taught by mapping content to geographical areas representing philosophical paradigms; students obtained 'gold' for discussing material. Participants were also divided into teams (along the lines of a traditional RPG adventuring group) for assessments. Engagement absolutely increased, but further iterations of the course had to deal with improving tracking of gold awards and making use of gold more relevant to students. Gressick and Langton (2017) similarly gamified an introductory

1 *Sometimes this is related to where a game is seen to fit on a spectrum from 'sandbox' to 'railroaded' games. At one end of this spectrum are sandbox games where the environment gives players a great deal of freedom in mediating their interactions and gameplay processes, while in the other direction railroaded games severely restrict player choices and ability to affect the environment. By their nature, digital games will always contain some level of railroading due to limitations of the code. By contrast, non-digital games permit the human players and gamemasters to allow actions outside the existing rules.*

psychology course, mapping content visually and allowing students, organized into guilds linked by common interests, to travel through the game world. Notably, this course used guild-based competition as well as quantitative and qualitative data collection to assess effectiveness. Rewards granting new course options were given to students who accomplished set tasks.

Writing and tutoring instructors have also employed TTRPG gamification methods. Henthorn (2022) described a light use of RPG gamification in a writing tutor training course. In this situation, students did not take on specific personas, but they did adopt generic RPG class roles in deciding how to approach the quest-based course. Each student had to choose two of the three possible roles and select role-based activities to complete the training. This course deliberately avoided the kinds of gamified rewards employed in other examples, partly to focus more on process and partly because the instructor, an experienced gamer, was justifiably wary about the additional work involved. By contrast, Shay and Shay (2022) sought to use TTRPGs to recontextualize the role of the writing tutor by analogy with the layering involved in being a player in a TTRPG. This revisioning allowed insights into both the different personas involved and the rules that must be internalized to be successful. Finally, Bundy (2017) made a relatively small implementation of roleplaying elements in a creative writing course to reset the relationship between instructor and students. In this case, the challenge involved getting past the entrenched resistance students had to comprehensive revision by roleplaying as Lars von Trier (the instructor) and Jørgen Leth (students), replicating an experiment the two directors had conducted, in which Leth was set increasingly arbitrary rules for remaking prior art. In this case, the roleplay allowed the shifting of the dynamic from revising to remaking, helping students recontextualize revision.

Conclusion and Recommendations

As can be seen, classroom constraints require that TTRPG implementations play to the strengths that can be most easily used given both learning objectives and practical realities. For example, *Dungeons & Dragons* and similar games tend to have extremely detailed conflict resolution systems, which require quite a bit of instructional overhead and time. In non-instructional gaming, this is not necessarily a major problem, as groups may have a great deal of time and interest in using all the elements. However, classroom instruction alternatives are likely necessary, for at least two reasons. First, classroom activities require that game elements be shortened in duration so that they do not overshadow learning objectives or require effort disproportionate to their utility. Second, greater time and complexity increase the likelihood that individual instructors will be unable or unwilling to attempt such methods. Although many tabletop roleplaying sessions last three or four hours, instructors have to trim the experience to focus on the affordances most useful to instructional and learning objectives.

In *Small Teaching*, Lang (2016) suggests that teaching modifications that are less invasive and time-consuming may allow easier implementation. Lang suggests considering short modifications at the very beginning and end of class, but modifications need not be quite so minimal to lower the barrier to use. As mentioned by Sardone and Devlin-Scherer (2016), who studied boardgame development as a teacher educational activity, instructors may be resistant to new methods for many reasons, including the inability to see them as fitting standard classroom practices. Furthermore, while Sardone and Devlin-Scherer (2016) noted that successful game-based activities were often well-received by students, game development is itself an area of complex and overlapping practices requiring considerable iteration. Hopefully, most instructors are sympathetic to such issues. Geller-Goad (2015) obviously put a great deal of work into his course, but not every instructor will have the time or inclination. Thus, finding ways to adapt TTRPG learning methods in smaller ways seems a useful research goal.

One important component of TTRPGs that is often remarked on is how much the game as played at each individual table can vary from its use at other tables. In other words, each group creates a micro-culture of gameplay and recreates the game in ways that function well for the participants. Absent the addition of technical support, tabletop games are quite simply more easily altered to produce desired experiences. This is not to say that all groups or participants will seek to do this, but even relatively 'by the book' groups will usually have their own customs at the table, and their own foci as they determine what is of primary import to them. One common custom seen in most roleplaying games is the idea of 'Rule Zero', which suggests that the gamemaster should change, add to, or delete anything if it will produce a better experience for those involved. In a classroom setting, it seems worth leaning into this element and making use of the flexibility advantage these types of games offer over other sorts of tabletop games.

As seen in much of the research already discussed, there is always a tension between the ludus and paidia elements in any game situation, and this has important implications for classroom use. Some games as implemented in the classroom have very little paidia to them, whereas at the other end of the spectrum implementations utterly lacking ludus start to head in the direction of pure simulation. Given the way in which roleplaying games intersect the two axes, the aleatory (random) element of TTRPGs should also not be ignored as a pedagogical tool; to understand this, it is useful to consider the example of tabletop wargames, which have been used for instruction at least since the 19th century. For example, Raynaud and Northcote (2015) discuss the use of wargames in teaching the history of the First and Second World Wars; they show that allowing students to play out selected

scenarios may, in the right circumstances, create greater understanding of historical realities than watching media or partaking in other tutorial activities. Their students gained much greater appreciation for logistical issues faced by actual commanders, but wargames also permit events to veer off from their historical course with the right die rolls. This seems worth considering as an affordance because students often have a great deal of trouble discarding preexisting models; indeed, helping them see alternatives is a key challenge faced particularly in lower-level undergraduate courses. Giving students opportunities to do more than simply experience the expected situation, but instead to create an alternative course requiring the adoption of different strategies and responses, seems like an intriguing educational opportunity, one that can be served by the (at least semi-) random aspect of TTRPGs.

Considering the constraints imposed by classroom situations, three broad categories of implementation of tabletop gaming in classrooms suggest themselves: (1) using tabletop gameplay to construct an activity that forms part or all of a single class session, with possible reflection and follow-up in later sessions; (2) creating one or more course units, each consisting of several weeks of instruction centred around the use of TTRPG elements; or (3) fully gamifying the entire course using tabletop roleplaying. Each of these variants carries significant advantages and disadvantages that can affect the efficacy and hardship of implementing such ideas in the course.

At the most micro-level, an instructor might choose to devote a single class session to a TTRPG-based mode of learning. As mentioned, it is very likely that reflection and debriefing would need to be left for later, using some combination of online and future class sessions. Nevertheless, approaches like this have been achieved using activities like the desert island game seen in Perry and Robichaud (2020), classroom debates, or trials with students (and at times the instructor) in character. However, further development of this approach could involve further pursuit of the ludus by adding the kinds of random and rules-based elements that take the experience away from pure roleplay. Such uses would certainly need to be narrowly focused in terms of learning objectives and content to be handled, but sessions dealing with a key decision point, a series of closely related decision points, or an essential conceptual/paradigm breakpoint could benefit from a tabletop gamification approach. Single sessions that fully embrace TTRPG gamification seem like an intriguingly underexplored avenue for development. This sort of highly targeted usage would definitely need to use very focused and lighter rules and simple randomization methods.

Implementations might instead choose to focus on a single unit of a course, as seen in Bundy (2017). This approach has some of the advantages of full-course implementations, insofar as it gives students more of a chance to benefit from role identification and development, but the lower footprint within the course syllabus may reduce the stress of carrying it out.

Given that no particular approach is a pedagogical silver bullet, and that variations of familiar patterns can help keep the course fresh during the semester, this type of implementation has a lot to recommend it. However, the workload overhead may not actually be as low as one might expect, because many elements that might be designed for a full-course implementation and then reused all term, will still have to be designed, even though they will only be used for part of the term. In some ways, the return on the workload may actually be worse than for a fully gamified course.

Finally, instructors may choose to fully gamify their course using TTRPG elements and principles. Obviously, this is the most workload-intensive method, which is one of the reasons (along with general unfamiliarity with TTRPGs) many instructors understandably are reluctant to implement TTRPGs in their courses. The previously discussed Geller-Goad (2015), Henthorn (2022), Bell (2017), and Hammer et al. (2018) are all examples of this fully gamified course. Probably the biggest danger is a failure of buy-in on the part of the students, which can be obviated if the course is actually advertised as gamified so that students not desiring this style can take a different section or course. Once students have assented to the style, however, the workload pressures of a full-semester implementation can be met by using the flexibility and openness affordances fundamental to TTRPGs.

It seems fairly obvious that each of the above implementations will permit very different uses of game-related materials and require quite different rules setups. In addition, the specific types of learning sought will profoundly affect the preparation required. For example, classroom instruction focusing mainly on allowing students to take on new perspectives or gain empathy may permit a fairly loose structure, whereas a unit requiring the demonstration and application of particular content mastery will require a very different — and likely longer — implementation.

As mentioned, two particular challenges recur frequently in TTRPG gamification in college classrooms. For already highly stressed instructors whose schedules are not brimming with free time, the amount of time required for even smaller implementations is a major obstacle. At the same time, student buy-in and the related issue of the unfamiliarity with TTRPGs must be managed. An area for further research is in adapting simpler modern TTRPG systems to create gamification structures that are easier for instructors to implement and for students to learn and use in the classroom. Good examples of such systems might be *Fate*-based games from Evil Hat Productions and *Powered by the Apocalypse* games derived from the work of game designers Vincent and Meguey Baker.[2]

2 *Notably,* Fate *and* Powered by the Apocalypse*-derived games are already numerous and the original creators are very supportive of new designers reusing the open content contained in their system frameworks.*

Both of these options involve much simpler gameplay than the better-known Dungeons & Dragons, and both lean into the inherent flexibility and openness of TTRPGs in ways that take advantage of their non-digital nature. Ultimately, instructors seeking to use TTRPG ideas to alter either classroom practice or theory should seek out manageable ways of fulfilling their goals while hopefully enacting the type of serious playfulness that ought to break out in every classroom at times.

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