**‘It’s a Game of Skill - Playful learning through board game design’**

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**Introduction**

In the competitive graduate employment market, organisations are increasingly using softer skills to differentiate between candidates and define ‘talent’. In line with this, Human Resources professionals are being called upon to use creative approaches, and in particular ‘gamification’, in order to attract, retain and engage staff (Simpson & Jenkins, 2015), and ensure that their organisation stands out as an ‘employer of choice’. Despite a shifting focus within business education towards experiential learning and ‘real-world’ experience, it’s not easy to provide students with relevant opportunities to develop these skills. The requirements of standardised academic assessment frameworks can be constraining, and student expectations are understandably results focussed, particularly in the final year of their degree. However, arts-based methods, such as Board Game design, are believed to “contribute to a more holistic way of engaging with managerial contexts” (Taylor & Ladkin, 2012; 56).

It is against this backdrop that we start this chapter with a discussion of the designing of board games as a learning activity that provides an opportunity to focus on processes (including the learning process itself), rather than just the outcome, and thereby provide memorable skills development. This approach in particular uses the familiar format of the board game as an analogy to explain a process. Thus designing board games requires students to research appropriate contexts and reflect on them, as well as identify possible obstacles and shortcuts. The second part of the chapter is structured to take learning practitioners through the process of running their own board game workshop with students, with each stage supported by illustrative examples from our experience of using this method to teach OHRM/D. We reflect on how potential challenges could be addressed and discuss the success of adapting this method to the OHRM/D teaching context.

**The board game as visual analogy and games within teaching**

As a classroom activity, it is transforming knowledge into a visual outcome that makes the board game design task particularly valuable. When students are asked to design their own board games, this approach can make use of ‘learning by designing’, which Clarke et al. (2017: 75) describe as “a project-based inquiry approach, exploiting the characteristics of a design process that is non-linear, iterative, generative and creative. Design thinking as a domain has crossed over to learning”. The board game concept functions as an everyday analogy to simplify communicating very complex processes within OHRM/D practice.

The reason the board game as an analogy works, is because most traditional board games are based on a very simple visualisation of processes, namely the flowchart. Most board games are in essence flowcharts that are dressed up with fancy visuals and game mechanics. In the context of visualising content, as Brown argues, process maps (such as flowcharts) frequently visualise verbs. She goes on to state that “Process maps are often used to reach conclusions and make decisions, so these are particularly valuable in organizations working to optimize, align, streamline, etc.” (Brown, 2014: 128, see also Tufte, 1997). Roam also defines the flowchart as visualising verbs (in his case ‘complex verbs’), because by combining both the map and the timeline they “descriptively show *how* something happens” (Roam, 2011: 126, his emphasis). He continues to explain that the flowchart is particularly effective in “mapping out of the pieces of an interaction in one place so we can see them all at once” (Roam, 2011: 128). It follows that breaking down complex interactions, as can be found in OHRM/D practice, into the steps of a flowchart, is a useful practical exercise in analysing the complexities that are at work here.

The notion of play, that automatically comes with the concept of ‘game’, can be seen as a valuable bonus, because it opens the door to a different type (and level) of engagement. The gamification of education and game-based learning (GBL) in general is too large a subject to do justice in this short chapter (see Clarke et al 2017 for a useful introductory overview with specific focus on non digital games, and Whitton and Mosely (eds.) 2019 for an exploration of playful learning to engage adults within HE in particular), but there are some basic points we want to draw out, namely its cognitive dimension and the different levels of fun that can be found in games.

Lameras et al (2015: 7) consider “the knowledge structures relevant to perceiving games as artefacts of linking knowledge-oriented activities with cognitive outcomes” in the context of Bloom’s distinction of cognitive, affective and psychomotor domains within learning. As Lameras et al (2015; 7) explain: “Bloom defined the ‘cognitive domain’ as a student’s intellectual level that is what a student knows and how they organise ideas, opinions and thoughts. The cognitive domain connects with in-game activities that advances learning and knowledge and are integrated throughout in-game learning experiences”.

Designing a board game as part of a classroom learning activity is a direct way for students to organise ideas, opinions and thoughts on specified subjects. In the activity suggested by this chapter, students don’t just design the board itself, but also the game mechanics, i.e. the in-game activities, allowing for another level of organisation, often tied to particular in-game events (for example by the inclusion of trigger spaces, i.e. landing on a particular space triggers a particular event, such as the shortcut of climbing up a ladder in ‘Snakes and Ladders’). And then there is the opportunity for the students to play each other's games, allowing for critical engagement with other specialisms (while having some fun on the way).

It is important to note that in the context of gamification there are four types of fun - easy, hard, serious and people (Chan et al 2015 referring to Lazzaro, 2009).

“These four types of fun generate a wide range of emotions and enhance the game experience. For example, Easy Fun emotions maintain player attention without challenges through novelty and inspiring fantasy. Hard Fun creates challenges with strategies and puzzles. Serious Fun teaches or accomplishes real work. People Fun motivates group interaction, interpersonal relations and creates emotions between players. These emotions have a significant effect on enjoyment, attention, memory, learning, and performance”. (Chan et al 2015: 7)

Not only do the games that the students make generate these (or some of these) different layers of fun for any players, designing the board games can be seen as a game in itself, that initially provides novelty (easy fun), allows students to include challenges via strategies and puzzles (hard fun), when done in groups motivates group interactions and all the positives (and challenges) that come with that (people fun), but mainly it accomplishes real work in getting students to research and conceptualise a subject in a different way, thinking about ways to visualise processes and build different ways of engagement with an audience (serious fun).

The method we are proposing for running these workshops was developed by Alke in the context of her teaching of research skills to art and design students. It was then tested and refined by her (sometimes with the help of Katy’s co-facilitation) in a number of contexts, such as the Undisciplining conference organised by The Sociological Review, which is where Helen came across it and subsequently started using it in her teaching.

**Teaching OHRM/D via Board Game Design**

Alke’s concept of Board Games as a teaching method was adapted to the OHRM/D context by Helen. A workshop called ‘Design HR the Board Game’ was developed for final year undergraduate students and has been run a total of three times so far for class sizes of around 20-30 students. This provides sufficient experience to reflect on the usefulness of this technique in the OHRM/D context, however, we are aware that this is only a small case study and can therefore only give indicative results. The purpose of the workshop was to support students in developing skills that would enable them to undertake an atypical Assessment requirement: to produce an Infographic representing how all the module topics are undertaken at a chosen case study organisation. The module in which the workshop is located, ‘HR Resourcing and Development’, provides a critical focus on the two named areas and covers a wide range of topics including Recruiting for Talent and Diversity, Performance Management, Well-being, Organisational Development, Learning and Coaching as well as Mentoring. The module is studied by a range of students, from those with no employment experience and little knowledge of Human Resources, to those on HR-specific degree programmes who have completed a year-long HR placement. Therefore, it was important to be clear about the aim of introducing the workshop and ensure that it was responsive to a range of learning needs.

The Board Game Design was implemented as a team-based activity. Although the Infographic is an individual assessment component, one objective of the workshop was to enable students of different skill and knowledge levels to support each other and to ensure that there was time to finish the games within the two hours allotted to each workshop. Assessment requirements were prominently incorporated to ensure that by completing the workshop students could improve their understanding of, and their ability to complete, the Infographic Assessment task. These requirements meant that the board games needed to be based on a case study organisation. As with Alke’s workshop at the Undisciplining conference, it was suggested that a process, in this case one specific to HR, was used to structure the game, for example, a career path at Tesco or a placement year at Newcastle Building Society (see examples below) [1]. Thereby the stages of the career or placement, or other HR process, provide the progression through the game. In addition, students were also required to incorporate as many of the eighteen module topics as they could into the game play. This is also a requirement for the Assessment Infographic which needs to demonstrate how the chosen case study organisation utilises the topics to achieve its strategic goals.

**Do it Yourself in the classroom**

We are talking about a fairly complex process that might be unfamiliar to readers, which is why we decided to illustrate this teaching method by detailing the instructions of what participants are asked to do during the workshop itself. These instructions are in bullet point form, to distinguish them from the regular text. They are followed by examples from Helen’s ‘Design HR the Board Game’ workshops that illustrate important aspects of each stage. It should be noted that these examples show the finished game prototypes, while the instructions refer to one stage in the process of developing them.

The approach developed by Alke (which we recommend here; check [www.tactileacademia.com](http://www.tactileacademia.com) searching the board games tag for more information) consists of three + one steps: The first three steps are developing a diagram, considering game mechanics and exploring visual impact. This is not a descriptive order; depending on the project it might make more sense to first develop the visual impact or the game mechanics. In a workshop, however, we have made the experience that this order seems to be the most accessible for people who have not thought about making a board game out of a project before, which is why we suggest it here. After all of these three steps are completed, the final step is putting the outcome together into a working prototype.

*Preparation*

This is a hands-on workshop, and therefore it is important that you have a room with enough space for all participants to spread out a little and to work on a large version of their ‘board’. So a seminar room would work better than a lecture theatre or a computer lab, for example. Materials we recommend you provide are: stacks of multi-coloured sticky notes, felt tip pens in lots of colours, paper for initial sketching, large paper (A1 works well) for the ‘boards’, pre-made blank cards for people who want to include chance cards or similar, dice and tokens for play-testing, other fun bits (like play money), as well as elastic bands to allow participants to roll up and take home their prototypes more easily.

You should allow at least 90 minutes for the workshop activity, but if you have more time, we recommend starting the session by playing existing board games. This doesn’t mean setting aside 5 hours for a mammoth Monopoly session, but rather setting up games and having groups start to play them, exploring the rules and game mechanics. About 45 minutes works well for this. Playing games at the beginning of the session helps to get participants in a playful mood and enables them to reflect critically on board game design. It also can provide a range of examples when it comes to board game design, so try to provide a selection where the path design is different, such as some that have one path and some where there are a choice of paths and some where the path is constructed by the participants during the game. Likewise it can be useful to have a range of game mechanics on show, for example different ways of triggering chance events (dice, spinner, game cards), as well as a collection of different imagery.

*The Diagram Stage*

* Decide which HR process will form the flow of the board game.
* Break the process you want to visualise into a list of the various stages.
* Turn the list into a flowchart by considering the order - do some steps have prerequisites? Are some optional? Does the flow ‘fork’ at some junctures?
* Are there specific deadlines involved for specific steps?
* Write each step of the flowchart on separate sticky notes and number them (using letters to signify parallel steps).
* Are there different stages that you could show by using different coloured sticky notes for the steps within them?

As has been discussed above, the notion of the flowchart is a central one in this context. In this stage participants reflect on a process (adding research if necessary) in order to come up with what will become the game path. ‘The Game of Life: Placement Edition’ (see Figure 1) is a good example of a straight forward, linear game path.

In the ‘Design HR the Board Game’ workshop, Recruitment was the most popular HR process that students chose to base their games on, although there were some very interesting examples of games based on other specific HR processes such as performance management and induction. Other groups were more creative in how they structured the flow of their game. One group based the flow of their game around different modes of transport and countries in which their chosen organisation had offices (see ‘Risky Recruitment’ Figure 3), demonstrating that student’s creativity had not been constrained by the guidelines provided. Basing the game on a wider process, such as a career path, rather than a single HR process, also provided more scope to incorporate the range of module topics into the structure of the board game, rather than having to use question cards (see ‘Tesco Careers’ Figure 4).

*The Game of Life: Placement Edition*

**[INSERT FIGURE 1 HERE]**

Figure 1: Prototype of ‘The Game of Life: Placement Edition’

This game was designed by HR students based on undertaking a placement at Newcastle Building Society. The inspiration for the flow of their game was inspired by the existing board game ‘Pay Day’. As players move through the game they progress through their career and tackle the events experienced on the placement such as a careers fair and a volunteering day. The aim of the game is to achieve a coveted graduate job, with progression being based on correctly answering questions based on the module topics. In designing this board game the students were able to compare their different placement experiences as well as developing skills in designing and presenting the game.

*The Game Mechanics Stage*

* As a group, brainstorm game elements that you are familiar with.
* Consider potential obstacles and note them down on sticky notes in a new colour.
* Consider random events that could happen, these could be good random steps on the path (note them down on sticky notes in a new colour), or a way to use chance cards (make ‘trigger’ sticky notes and list on pre-made cards).
* Are there potential shortcuts? Add trigger spaces or include in the rules.
* Are there rules that could represent your process?

Game Mechanics are what turns the flowchart into a game - but this is also where extra information and material can add another layer to a straight-forward process. For example, in the ‘Design HR the board game’ workshop students needed to decide how they would incorporate the 18 HR topics taught on the module. The majority of the teams decided this would be best achieved by the use of different question cards which tested the players’ knowledge on different aspects of Human Resources at the case study organisation. In ‘Ikea Recruitment’ (Figure 2), spaces with a question mark have been added to trigger the use of a question card to test knowledge as part of the game mechanics.

*Ikea Recruitment*

**[INSERT FIGURE 2 HERE]**

Figure 2: Prototype of ‘Ikea Recruitment’

The game ‘Ikea Recruitment’ is based on the traditional game of ‘Snakes and Ladders’. As two of the students in this group were studying the module on exchange from Sweden, they decided to use the well-known Swedish retailer as their case study organisation. As players move up the board they experience the successes and potential pitfalls of a recruitment process. When a player lands on a square with a question mark, they pick up a card and must answer correctly in order to progress. Questions were based on key aspects of the Human Resources lecture topics. This group were not studying HR specific degrees and varied in their level of knowledge, experience and cultural background providing for interesting discussions and learning in developing their board game.

*The Visual Impact Stage*

* Brainstorm visual analogies that could describe the process.
* Brainstorm possible illustrations of the subject content.
* Sketch out possibilities.
* Can colours or shapes signify something?
* Combine the game path (don’t worry about the actual steps yet) with these potential visuals - that could be a path with illustrations or a path that makes a shape.
* Pick your favourite visual.

The visual impact might be seen as a way of adding more aesthetic appeal to the board, but really this is another layer that can be used to convey more meaning. Illustrations, even if they are simple, help players understand what is communicated. The map in ‘Risky Recruitment’ (see Figure 3), for example, makes a simple point about the global dimension of some recruitment processes. This game also uses colour coding to organise the game path, with for example modes of transport being assigned yellow spaces. The visual analogy can do similar, if somewhat more abstract work, as has been seen in ‘Ikea Recruitment’ where the ladders signify shortcuts and the snakes obstacles - a simple visual analogy at work.

*Risky Recruitment*

**[INSERT FIGURE 3A AND FIGURE 3B HERE, IDEALLY SIDE BY SIDE]**

Figure 3: Student working on ‘Risky Recruitment’ (left) and the finished prototype (right)

‘Risky Recruitment’ was developed by a group of Business Management students, based on their favourite board game, ‘Risk’, in which players must conquer territories across the World. However, in this version, the locations are the offices of the organisation where one of the students went on placement; Frank Recruitment Group (www.frankgroup.com). Players must travel around the board and land on a square which relates to either a city or a mode of transport, which denotes the type of question card they pick up. Squares and question cards are colour coded and topics are incorporated into the game via the questions. If the player gets the question right, they take the pin for that location from the map. The player who gets to the end with the most pins wins. However, a player’s pin can be won by another via a particular card or if they get a question wrong.

*The Assembly Stage*

* Sketch out a large version on the large paper.
* Add the path.
* Draw the appropriate spaces into your game path as mapped out with your sticky notes (don’t forget to include the game mechanics steps).
* Write draft rules.

In a way, this last stage is the most straightforward one, as all the thinking work has already been done. For this reason this can easily be shifted into a ‘homework’ task, for students to complete independently in case there is limited time during the workshop. In the finished version of ‘Tesco Careers’ (see Figure 4), for example, students did not just ‘tidy up’ the board after the workshop, but also added the logo and illustrations representing characters at different levels of jobs.

*Tesco Careers*

**[INSERT FIGURE 4A AND FIGURE 4B HERE, IDEALLY SIDE BY SIDE]**

Figure 4: Students working on ‘Tesco Careers’ (left) and the finished prototype (right)

This Board Game, ‘Tesco Careers’ is based on career progression at the well-known supermarket chain. The winning player will be able to successfully move around the board, progressing from Sales Assistant to Shift Manager to Store Manager and then Area Manager. However, players’ progress is stalled if they land on pitfalls such as not being ready for promotion or being the target of a customer complaint. Only one of the students had previously studied Human Resources and thereby the game design enabled those without this knowledge to apply Human Resources practices to their existing working experiences.

*The Share and Playtest Stage*

While the initial workshop will hopefully have resulted in prototype games, playtesting allows reflection on both the process of designing the games and, more importantly in the learning and teaching context, on the subject matter. In the ‘Design HR the board game’ workshop, students finished assembling their games in their own time and were then asked to present their game to a panel of Human Resource professionals who judged the student games based on their design rationale, playability and incorporation of HR topics. Prizes were awarded for the games that scored highest based on these criteria. This provided a fun and memorable way for students to demonstrate their learning by presenting and playing their game with the panel.

**Reflection on the Workshop**

The ‘Design HR the board game’ workshop allowed participants to think about how case study organisations operate OHRM/D from a different perspective by consolidating the often-messy process of research and learning and communicating this in a visual, tactile and interactive way. The level of engagement amongst workshop participants was reflected in a high level of background noise in the classroom as team members interacted, discussed and negotiated their game design. There were also unusually high levels of concentration on the task: students remained focused on completing the given activity for the whole of the two-hour workshop.

Feedback received following the workshop also indicated that it had been successful in enabling students to learn new skills, and/or build on existing ones. Students believed that this could support their employability, which was also evidenced by the panel of HR Advisors who were very impressed with the levels of confidence and creativity demonstrated by the students during their interactive presentations.

Following the workshop, students who had attended were asked to complete a short online survey. The survey achieved a 43% response rate (n. 20). All respondents were required to state the extent to which they believed they had developed a range of ten different skills, 1 being ‘not at all’ developed and 10 being developed ‘a lot’. Those skills which students believed were developed to the greatest extent via the workshop were Team Working (mean 8.25), Creativity (mean 8.10), Communication (mean 7.3) and Presentation (7.0). This demonstrates that activities the students engaged in via the Board Game workshop are particularly relevant to those that are aiming for a career in Human Resources, as the skills developed align closely with the Chartered Institute of Personnel and Development’s (CIPD) Profession Map. While only 25% of respondents believed they had learned something new via the workshop, more believed that they had built on their existing skills (45%), been challenged (50%) and achieved something (55%). All students responding to the survey also agreed that the skills they had developed in the workshop would be useful for producing their assessment infographic. A key observation regarding the submitted infographics is that students who were part of Board Game teams that had been scored highly by the panel tended to produce more logical and clearly structured infographics, some of which clearly followed a Board Game style flow.

The skills developed via the workshop are also transferable to professional contexts, both in Human Resources and other more general business contexts. Half the respondents stated that they were planning to obtain a role in Human Resources after they graduated, with the remaining respondents planning to either obtain a role outside HR or undertake further study. However, overall 85% of respondents thought that the skills gained would be useful in their chosen route after university. Interestingly, students on non-HR specific degree paths rated the skills gained as more useful than students on HR specific degrees. This could indicate that the format was particularly successful in engaging those who had little experience of OHRM/D by enabling ‘learning by designing’ (Clarke et al., 2017; 75).

However, there are a number of potential pitfalls that educators may wish to address before running their own student board game design workshop. These centre around a core issue: the ability to engage students with the board game format. Remembering that this was an innovative format adapted to the OHRM/D teaching context, many students were excited by the prospect of doing something different. However, a small minority were dismissive of the usefulness of the activity without being willing to try it out and therefore did not attend the workshop. This underlines the need to have a clear workshop rationale and outcome, which in this case was to support the assessment. Some students may also worry that they are “not creative”, which Trend (2020; 7) believes is prevalent due to creativity being presented culturally as a rare skill. Given that the survey demonstrated that creativity is one of the skills students thought they developed the most during the workshop, these concerns can be addressed by reassurances provided beforehand, and also the supportive environment of working on the board game as a team.

Two of the ‘Design HR the board game’ workshops were run with the incentive of a prize and one without. It was felt that this provided some additional motivation to put extra effort into the students’ game design, with one student commenting that they had not thought of themselves as competitive until they took part in the workshop with the potential of a prize. However, the workshop ran successfully without the prizes and therefore this is merely an optional extra if funding allows or sponsorship can be obtained. Finally, the time allotted to the workshop can be constrained by timetabling, requiring students to finish their game prototypes outside the classroom. The requirement to present their games provided them with the impetus to complete them, with many groups enthused by the task and thereby putting in significant extra effort to perfect their board game.

**Conclusion**

As this small scale study indicates, teaching methods borrowed from other disciplines can successfully be applied to the OHRM/D context. The ‘Design HR the board game’ workshops inspired by an art and design approach, have demonstrated by example that a creative approach can lead to the development of much sought after soft skills, such as communication, as well as facilitate the testing of relevant knowledge in an experiential and interactive way. The examples and reflections on the conducted workshops have shown that students did engage and make use of the different layers of fun - from easy to serious, resulting in a successful use of gamification strategies. As a first foray into ways of engaging an audience in a playful way, strategies used in this workshop will potentially be very useful for future Human Resources professionals that have to develop novel strategies of attracting, retaining and engaging staff. While this might not be a ‘real-world’ experience, the use of the analogy of the board game is a useful tool to consider and analyse processes in the real world, for example, providing a useful way of engaging with managerial contexts.

[1] Corporate names and brands used in the student games may be trademarks or registered trademarks, they were used to establish a real world context of the work and without intent to infringe.

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