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Parsifal a Game Opera

Experiential learning in gameful performance art

Rens Kortmann¹, Arlon Luijten²

¹Delft University of Technology; Faculty of Technology, Policy, and Management; Department of Multi-Actor Systems; Section Policy Analysis; Jaffalaan 5; 2628 BX Delft, the Netherlands
L.J.Kortmann@tudelft.nl

²Independent theatre maker, Parsifal Playingfields, and Operadagen Rotterdam
AEMLuijten@gmail.com

Abstract. Richard Wagner's *Parsifal* was recently rewritten and performed as a 'game opera'. We used observations, questionnaires, and interviews to study how the 700+ audience were facilitated to experientially learn about the show's main themes: compassion and collaboration. This case study contributed to our understanding how performance art may improve games for learning and training purposes, many of which now are notoriously 'boring'. We concluded that performance art's main contribution, in particular to games discussing fundamental values such as compassion, is to captivate players and 'lure' them into their natural behaviour. Thus the Parsifal game opera emotionally confronted its audience with their – callous and selfish – behaviour and intensified their learning through embodied experiences. However, some players lacked time and support to (collectively) reflect on their experiences and lacked catharsis. Therefore, we recommend using gameful performance art for learning and training purposes, provided that all activities in experiential learning are sufficiently facilitated.

Keywords: real-life games, performance arts, interactive drama, experiential learning, informal learning, game-based learning, professional training

1 Introduction

Many games for learning and professional training are notoriously boring. Often, such games fail to deliver an embodied learning experience [3]. At the same time, one of the greatest merits of the performance arts is to create intense experiences that captivate their audiences. Could the performance arts help to improve games for experiential learning and training in, for instance, schools or companies? We studied how a *gameful* theatre performance facilitated experiential learning [5,6] and drew lessons from it.

Interactive drama exercises have been used before as instruments for experiential learning, for instance in management education [1]. Our work differs from these approaches in the sense that we studied a performance that was primarily of an artistic

nature. Such work is generally not intended to be an instrument for formal, *intentional* learning activities such as a school lesson or corporate training. Therefore, the answer to the question above could simply be ‘no’. However, we imagine that gameful performance art could be used for *unintentional* or *informal*, experiential learning [2] much in the way that social media platforms may facilitate informal learning processes [9]. Do audiences in gameful performances learn unintentionally by observing the environment, acting in it, and reflecting upon their actions, quite similarly to how children learn informally in everyday life by observing and ‘pitching in’ [10]? If so, how is the learning facilitated?

In the remainder of this paper we focus on one such gameful theatrical performance: the *Parsifal Game Opera* (from here on abbreviated as ‘the Parsifal game’). Starting with the classic work by Richard Wagner, director Arlon Luijten and his team aimed to provide their audience with an experience that could trigger them to reflect upon the main themes of the work: compassion and collaboration. Although artistic quality was the foremost aim for the makers, they hoped that the performance would also raise questions and spark discussion about the need for compassion and collaboration to enable the transition of our society to a sustainable future [7].

To evaluate how the Parsifal game facilitated experiential learning for its audience we observed players’ behaviour during the shows. After the shows we conducted questionnaires and held interviews with players and makers. This mixed-method approach provided, first, narratives about how the game facilitated the audience to experience and reflect upon the main themes in the performance. Second, these narratives are substantiated quantitatively after analysing the response to the questionnaire.

In section 2, we provide some background to the theory on experiential learning in order to frame our problem space. Then, in section 3, the Parsifal game design and performance are outlined. Based on the theory on informal, experiential learning, the game is then evaluated in section 4, after which conclusions are drawn in section 5 about the use of gameful performance art for experiential learning and training.

2 Experiential learning

The concept of experiential learning has been defined in detail by Kolb and co-workers [5,6]. It is often associated with informal learning which is often viewed as a process of making sense of experiences [2]. Kolb defined the experiential learning cycle as consisting of four steps as shown in Fig. 1. The four consecutive steps are: abstract conceptualisation (the learner forms hypotheses of how her surroundings will respond to her actions, *e.g.*, ‘If I give my mother a present, she will be happy’); active experimentation (the learner acts upon the environment to reach a certain aim based on her hypotheses, *e.g.*, ‘I give my mother a present’); concrete experience (the learner senses (changes in) her environment as a result of her actions, *e.g.*, ‘My mother shouts at me.’); reflective observation (the learner evaluates the experience to falsify or corroborate the hypotheses she made before, *e.g.*, ‘My mother was not happy when I gave her a present.’). After the reflective observation step, the learner returns to the abstract conceptualisation step to update her hypotheses made before (*e.g.*, ‘If I

give my mother a present *that is not a dead mouse*, she will be happy.’) and continues the cycle. After iterating the cycle several times, the learner will start to understand from experience how her surroundings work.

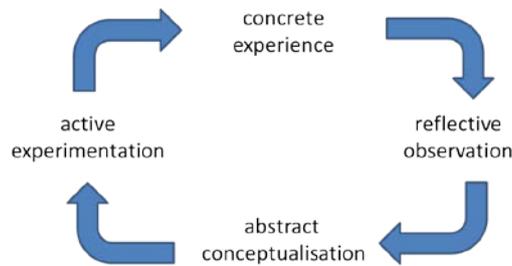


Fig. 1. The experiential learning cycle according to Kolb [5].

3 The Parsifal game – design and performance

The Parsifal game was created as the second part of the theatre show *Parsifal the Grand Opera* that was performed during the International Rotterdam Opera Festival in the Netherlands in May 2016. The show consisted of three parts that were staged in different venues and attracted over 700 attendants (about 100 per game session).

3.1 Wagner’s Parsifal

Wagner’s Parsifal is based on the 13th century epic poem Parzival. The story, which is set in the Middle Ages, is about the innocent fool Parsifal who ventures out on an epic mission to retrieve a Holy Spear from the magical garden of the evil wizard Klingsor. The Spear is needed to heal Parsifal’s king Amfortas who is mortally wounded and whose state induced a crisis amongst his people. In the magical garden lives Kundry, a cursed woman who is forced to sexually seduce all men that enter the Garden until one of them is able to withstand her advances. In the Garden, Parsifal felt compassion for his king and, therefore, Kundry was not able to seduce him. As a consequence, Parsifal could take the Holy Spear, return it to heal Amfortas, and thus bring salvation to his people. Moreover, Kundry was freed from her enslavement.

3.2 Parsifal the Grand Opera

In the current show, the director took a somewhat different stance towards the original story above. First, he could not relate to Parsifal acting as a solitary (anti)hero and saving his compatriots all by himself. Instead, the director felt that no person alone may save our current society from the many challenges it is facing. In fact, he believed it requires a common effort by all members of society to change it for the better in the long term. Second, he did not feel comfortable with the sexuality theme that the

original story used to represent the vices of mankind. Instead, he considered other traits such as callousness and selfishness as larger threats to a sustainable future.

As a consequence, the director chose to remove Parsifal from the script. Where in the original work the community in crisis and Parsifal are introduced to the audience in the first act, the current show started with a director in crisis because of his main actor – Parsifal – not showing up. By the end of the first act the director concludes that Parsifal is not coming. Instead he invites the audience to become Parsifal themselves: to venture into the city, like Parsifal travelled to Klingsor's magical garden in act two, and find the 'Holy Spear'. Then, the audience was guided to the second venue.

After arrival in act two, Klingsor's magical garden, the audience were separated into eight teams and were assigned a game table and game coach (singer/performer). The aim of the game was to build a tower of ten building blocks that could be purchased with coins earned in the so-called 'coin rooms'. Coins could also be spent on weapons to attack other teams and to defend against them. Finally, teams could invest coins in developing new weapon technologies or in shares at a stock market. In order to provide players with a total embodied experience which induced not only thought, entertainment, and learning but also a catharsis as we find it in the theatre, we immersed them with live music (string quartet and live electronics responding to the players' behaviour), video, singing, and performance by the game-coaches.

The game was played in rounds that consisted of several phases. Each phase was announced and timed by the 'umpire' who also acted as game commentator. In phase 1 the team members were sent to the coin rooms to earn coins; in phase 2 all coins earned were spent on purchasing building blocks, weapons, shares, etc. Each game coach entered their team's choices into a mobile app that was custom-built for the show. In phase 3, the game coaches enacted a 'shoot-out' between the teams (see Fig. 2). Also, the umpire announced the battle results to the rhythm of the music played by a string quartet and supported by electronic samples. In phase 4 the umpire spun a wheel of fortune to simulate the stock market. Finally, in phase 5, the game coaches provided feedback to their teams about the results from the previous round.



Fig. 2. Impression of the Parsifal game with game hosts performing a 'shoot-out'. Photo: Bart Visser. More impressions can be found on www.parsifal-playingfields.nl

In collaboration with local organisations, such as Erasmus University Rotterdam, the City of Rotterdam, and Codarts University for the Arts, about ten coin rooms were installed. The coin rooms discussed the show's themes: compassion and collaboration. For instance, one coin room discussed an important *Leitmotiv* from the original Wagner score where Kundry sings about compassion leading to salvation. Players that recognised the correct *Leitmotiv* received coins. Another coin room awarded coins to players that succeeded in playing collaborative mini-games. Finally, one coin room did not reward compassion or collaboration, but, as a counterweight, taught 'The Art of War' as developed by the ancient Chinese general Sun Tsu (500 BC).

The game's sustainable-future theme was represented in the magical garden modelled as a common resource pool [4]. Building blocks and weapons were built from the garden's resources, with weapons drawing more heavily upon the resource pool than building blocks did. When a healthy number of resources was maintained, the pool would replenish itself through natural growth. However, with declining numbers of resources, replenishment slowed down as well. A resulting scarcity of resources caused higher resource prices. Players could replenish resources by investing in 'eco science' at the stock market. Notably, this was the least profitable fund which resulted in a prisoner-dilemma type of game with defectors gaining a higher profit while benefiting from those who complied with investing in eco science.

Where Wagner's Parsifal saw compassion and abstinence as a prerequisite to save Amfortas' community, the Parsifal game, instead, aimed for its players to think about compassion and collaboration as enablers for the transition to a sustainable society. For this, the character Kundry played an important role. As in Wagner's Parsifal, Kundry is Klingsor's slave in the game. She is forced to seduce teams to play callously and selfishly. Also, parallel to the opera, she will not be free until all teams will withstand her advances and play compassionately after all. For instance, in round 3 she must offer a box to the team that built the smallest tower so far. In the box are a button and a note saying: "Inequality is the main threat to our current society. You can cure society by pressing the button in the box. The highest tower will then be removed from the game". If the team that is offered the box decides to press the button, the game is paused, sound samples of sirens and collapsing buildings are played, and the lights flash. The umpire then announces that the team that owned the highest tower has fallen victim to a terrorist attack and will need to start again from scratch.

In the game narrative, Kundry developed an alternative, compassionate way to find the Spear, which she inconspicuously encourages all teams to follow. For this she drops notes and cautiously shows players certain writings on her arms and legs. Players that pick up her hints will understand that the original Parsifal game, *i.e.*, Klingsor's game of building a tower to take the Spear, allows for and even *awards* callousness and selfishness: it is generally cheaper to steal building blocks from other teams than to purchase them. Instead, Kundry offers all teams a way to collectively build the Spear. Through a series of clues the players obtain a mould of a spear that needs to be filled with building blocks of all teams. Only if all teams decide to act compassionately and to collaboratively build the alternative spear, Kundry's way can be completed and Klingsor will be defeated. However, if one or more teams defect all is lost and all players become Klingsor's slaves as is enacted in the game's epilogue.

4 Evaluation

About 108 visitors (15%) responded to our online questionnaire through which we measured game experience and learning effects. The completion rate was 59%. Based on our observations, our sample of respondents represented the full population well. For our analyses we divided the sample in groups along the background variables (see Table 1) and compared their responses. For instance, we compared responses of the group of respondents below the age of 50 to the responses of the group above the age of 50. To compare averages between the groups shown above we used an independent-samples Student t-test.

Table 1. Background variables and groups of respondents.

Background variable	Grouping value	N	N (%)
Age	< 50 years old	38	45%
	>= 50 years old	70	55%
Gender	Female	61	56%
	Male	47	44%
Education	Non-academic	51	47%
	Academic	57	53%
Gaming frequency	Less than weekly	67	63%
	Weekly or more often	39	37%
Frequency of visits to theatre performances	Less than monthly	63	59%
	Monthly or more often	44	41%

Because of the statistical dependencies found between background variables, we defined another two groups as shown in Table 2. We found a weak but significant negative Pearson correlation between age and education ($r = -.21$; $p = .029$; $N = 108$) and a weak but significant positive Pearson correlation between age and the frequency of visits to theatre performances ($r = .25$; $p = .010$; $N = 107$).

Table 2. Additional groups used in the analysis of the results.

Background variables	Grouping value	N	N (%)
Age and Education	< 50 years old and Academic	27	40%
	>= 50 years old and Non-academic	40	60%
Age and Frequency of visits to theatre performances	< 50 years old and Less than monthly	26	45%
	>= 50 years old and Monthly or more often	32	55%

To compare the responses of the groups shown in Table 2 we used a non-parametric Mann-Whitney U-test due to the relatively small sample sizes.

Learning from the gameful performance

In our questionnaire we asked the players to what extent the show encouraged them to think about its main themes: compassion and collaboration. A majority of 63% of all respondents replied ‘much’ to ‘very much’ on a 5-point Likert scale. A similar percentage (58%) responded likewise when asked to what extent playing a game (as

opposed to watching a theatre show) contributed to them thinking about the themes. When comparing groups, we found the largest differences between the averaged response from younger players (<50) that less often visit a theatre (<monthly) (N = 19) and the response from the older players that more often visit theatre performances (N = 20). Both groups found the game mind-capturing but to the former group's opinion the game was significantly more mind-capturing than to the latter (U = 113; p = .21). We also asked our respondents what insights they had gained while playing the game and when these insights emerged. A majority responded that they had learned about the importance of compassion and collaboration as prerequisites for society to move towards a sustainable future. In addition, many reported about the difficulties they experienced to actually practice compassion and to collaborate in an environment that seemed to award callousness and selfishness. These insights emerged mostly 30 to 50 minutes after the start of the game. This period coincides with the time that Kundry started to encourage teams to play Kundry's way. Therefore, Kundry's way encouraged many players to think more about the main themes in the performance. Also, it stimulated the emergence of important insights in their minds.

Facilitation of experiential learning

How did the game facilitate experiential learning for its players? Could the facilitation be improved? To answer these questions we first aimed, in Table 3, to map the main activities in the Parsifal game to the four phases of Kolb's cycle (as introduced in Section 2). Then, we critically studied how each phase was facilitated by the game.

Table 3. Mapping of the phases in Kolb's Experiential Learning Cycle [5] to the main activities in the Parsifal game

Phase	Game activities
Abstract conceptualisation	Teams or players form hypotheses about: the activities on the game table (attacks, tower building, hacking, etc.) planned by other teams; the consequences of joining Kundry's way vs. remaining in Klingsor's game; the reasons and consequences of declining resources in the garden; ways to replenish resources in the garden; how to convince other players to join Kundry's way; the consequences of pressing the button in Kundry's box; the consequences of playing Kundry's split or steal;
Active experimentation	Teams spend coins on building blocks, weapons, stocks, etc.; A player presses the button in Kundry's box; Teams play Kundry's split or steal; Teams buy Eco Science stocks to replenish the resources in the garden; Players decide to follow Kundry's way or, instead, remain in Klingsor's game; Players try to convince other players to join them in following Kundry's way; Teams negotiate with other teams about playing split or steal; players visit a coin room;
Concrete Experience (and between brackets the form in which the experience took place)	Teams capture building blocks from or lose them to other teams (shoot-out performance); Teams win or lose money in the stock market (spinning the wheel of fortune); The number of resources lowers or grows (announcement by the umpire); One or more other teams joined Kundry's way or, instead, remained in Klingsor's game (observation by players); A tower is blown up by Kundry's box (AV effects and announcement by the umpire); A natural disaster occurs due to resource scarcity; One or more

	teams complete their towers; All teams played split or, instead, one or more teams played steal in Kundry's split or steal; All teams complete Kundry's way (all announcements by the umpire); players experience a coin room (mini-game, lecture, performance);
Reflective observation	Players listen to their game coach who clarifies the results of their game table activities (attacks, building block transports, hacks, etc.); players interpret and discuss the game rules posted on the wall; players reflect on their experiences (coin rooms, interaction with Kundry, etc.) in solitude or together with other players;

From the mapping above we deduct that players in the Parsifal game indeed spun the experiential learning cycle. Doing so, they discovered the mechanics of the game and, more importantly, started thinking about compassion and collaboration.

First, we found that the game provided ample time and space for the phase 'Concrete experience': players went through a rollercoaster of experiences as described in the table above. The game dedicated by far the most time for this phase and many game materials were developed for it. With the game being part of a theatrical art work, this emphasis on experience was expected and confirmed by the players. Most players enjoyed and were immersed by the overwhelming amount of stimuli, although we also received reports of a substantial number of players who got lost because of it. Second, the game facilitated the phase of 'Active experimentation'. Some significant time and a lot of materials were devoted to this phase (game table and board pieces, mobile app, Kundry's box, various materials for Kundry's way, etc.) but not as much as for the previous phase. Finally, the 'Abstract conceptualisation' and 'Reflective observation' phases were the least facilitated by the game. Although in every round of play some time was scheduled for feedback on the previous round's decisions, it was often no more than a short clarification by the game coach after which players needed to rush to a coin room. Few discussions were triggered by the feedback. Also, after visiting the coin rooms, players needed to hurry back to the game tables to invest their coins, leaving very limited time for contemplation about their game room experiences and sharing them with fellow players. In particular players who indicated that they had not enjoyed the game, responded that there was not enough time for them to digest their experiences and discuss plans for new actions because they felt rushed and not in control of the game. However, many other players reported that they found time for reflection and conceptualisation 'in between scenes'.

Altogether, the Parsifal game very intensely facilitated the action-oriented phases of the experiential learning cycle ('active experimentation' and 'concrete experience'), whereas the phases that were mainly oriented towards thinking and communication ('Abstract conceptualisation' and 'Reflective observation') were facilitated much less.

The added value of performance art

To learn how performance art could add value to games for learning and training purposes, we analysed our video recordings and conducted interviews with makers and players. No strict protocol was used due to the exploratory nature of the work.

The video recordings showed many examples of players that were emotionally involved with the game. For instance, we noticed heated debates around the game tables

about how to spend the team's coins. Some players argued ferociously to attack other teams in order to capture their building blocks whereas other held a passionate pacifist stance and argued against violence. In two game sessions, a player grabbed a microphone and pleaded for abandoning Klingsor's game and following Kundry's route instead. Finally, when one or more teams played 'Steal' in the final Split or Steal round, a general outcry of indignation was heard from the other teams.

From the interviews and questionnaire response we derived that players felt they were lured into their natural, callous and selfish, behaviour. The quick pace of the game and the overwhelming amount of sensory input encouraged them to play no other role than their natural self. Mostly, this meant that they made choices that were most highly rewarded by the game environment: to steal building blocks from other teams rather than purchasing them yourself; to eradicate another tower by pressing the button in Kundry's box rather than following Kundry's route; to buy funds that invested in weapon technology rather than 'eco-science'; etc. When the players were confronted with this behaviour, many felt ashamed about it. They felt they had not been faithful to their own values and norms and experienced a sense of guilt because of it.

5 Discussion and conclusions

The players in the Parsifal game opera learnt to appreciate the difficulty of practicing compassion and working collaboratively in an environment that rewarded the opposite. An important contributing factor was the captivating, 'enchanted' nature of the art work. Players reported they were 'lured' into their natural behaviour. The art work provided them with a mirror to reflect on their callousness and selfishness. As a result many players felt 'ashamed' about their behaviour and felt the urge to change it for the better. Therefore, this case study taught us that performance art's main contribution to improving games for learning and training purposes may be catharsis: first beguile the players, then emotionally confront them with their undesirable behaviour, and thus create a sense of urgency for them to start learning. The confrontation and resulting sense of urgency become more significant when the issues at stake become more significant and personal. Therefore, performance art has the potential to provide game players with an intensified embodied experience that prepares them for learning; in particular when the learning concerns fundamental values (compassion, openness, authenticity, etc.) related to one's personality and the important choices in life.

It should be noted, however, that in earlier work [7] we heard similar responses from the players even though no performance arts were involved then. Therefore, does it really require a performance arts maker to design a game that generates as intense embodied experiences as in the Parsifal game opera? We suspect that in certain cases the performing arts play an indispensable role, but it requires further research to understand when and how. Therefore, to follow up on this research we suggest to study a stripped-down version of the Parsifal game, *i.e.*, a version in which all theatrical and musical elements (actors, costumes, song and dance, orchestras, lighting, etc.) are removed. It would be worthwhile to compare the latter version to the game opera in an effort to estimate the added value of the performance arts in the game.

In addition, the Parsifal game facilitated its players to learn from experience about the importance of the show's main thematic concepts: compassion and collaboration. A majority of players indicated that the performance, and in particular the game format, triggered them to think about these concepts. Also, many players have reported to have gained insights about the importance of these concepts for the transition of our society towards a sustainable future. In particular the action-oriented phases of Kolb's experiential learning cycle [5] (experimentation, experiencing) were well supported by the game's design and the game materials. The phases that are more related to thinking and verbal interaction between players (conceptualisation, reflection) were less well supported. This conclusion leads to an interesting design dilemma. On the one hand, the facilitation of the latter phases could be improved relatively easily by allocating more time and more game materials to them. It would benefit players whose learning styles focus on these phases. On the other hand, doing so could harm the game experience as well as the artistic, musical flow of the performance for other, more action-oriented players, thus preventing catharsis for them to take place. Therefore, in order to fully exploit the added value of the performance arts for learning and training, future research should focus on the extent to which the four phases in experiential learning are facilitated to achieve catharsis and embodied experiences for all players, irrespective of their learning styles.

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