gamevironments

Ma Nishtana: Why is this Night Different? Photo by Gabriel McCormick.

Special Issue

Teaching with Games. Formative Gaming in Religion, Philosophy and Ethics

edited by

Tim Hutchings

Issue 19 (2023)

reports

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A Case Study of Teaching Complex Skills in Philosophy Through Games. *Are You Flourishing?*[i]

Karl Egerton

Abstract

This paper explores the potential for and challenges of teaching sophisticated and flexible skills in philosophy using games. The setting is philosophy at a UK university, and the example is a game-based learning activity designed by the author for teaching the topic *transformative experience* within a skills-based third-year undergraduate module, Communicating Philosophy. This module's learning outcomes include for students to be confident applying philosophical skills in novel settings, and this provides an incentive to teach in ways that challenge students' conceptions of how ideas can be communicated. The multiplayer card game *Are You Flourishing?* (2022) was therefore designed by the author as an engaging game that raises questions about rationality, subjective value, and the challenge posed by transformative experiences as discussed by Paul (2014, 2015). In this case study I describe the game and its rationale, its application in a particular classroom, and the impact of the game's inclusion on the student experience. This allows reflection on the potential for games to help students develop more flexible skills and build toward "professional artistry" (Schön 1987, 14). The results indicate a game-based learning activity that was seen as moderately enjoyable and encouraged reflection about transformative experience, games and gamification, and ways of communicating philosophy, in a substantial majority of participants, as well as being viewed as contributing to learning by a smaller majority. Problems with the activity generally centred around the complexity of the rules and other features of effective facilitation, indicating that similar projects to exploit the freedom and creativity afforded to learners by games should focus on identifying ways to simplify without compromising the game's aims and on making facilitation as effective as possible by streamlining the explanation of rules.

Keywords: Philosophy, Communication, Transformative Experience, Board Games, Gamification, gamevironments

The Setting

This study aims to describe the impacts and challenges of introducing a novel game-based learning activity to philosophy teaching; the example to be explored is the author-designed game *Are You Flourishing?* (2022). In order to make sense of *Are You Flourishing?* and its incorporation into teaching, though, we must first understand the educational setting into which it was introduced.

Module Overview

The setting into which I wished to introduce a game-based learning activity was philosophy teaching at the University of Nottingham, specifically a module titled Communicating Philosophy. This module is highly distinctive and appears to be unique among philosophy modules at least in the UK, if not more widely, because of its focus and approach.[ii] This includes the use of guest speakers and assessment via a range of short, practical projects, both of which function to bridge the gap between academic philosophy and professional life in response to the worry that skills-based education appears not to be prioritised in university philosophy education, with much more focus on content-based education (Walker 2021). A further exploration of its aims and approach can be found in Fisher and Tallant (2016).

The general aim of the module is to examine different settings in which communication happens, and to improve the skills required to make an effective contribution in those settings, with particular focus on the contributions that philosophers are well-placed to make. The module can be described in multiple ways,

but there are two parallel descriptions that capture its goals best. First, one can describe Communicating Philosophy as an *employability* module: by presenting different professional contexts and getting students to think actively about how to bend their philosophy skills to fit those contexts' requirements, students gain both readiness to apply their philosophical skills in professional settings and the ability to *sell* their skillset as an asset rather than an irrelevance or a hindrance. As put by a student interviewee in the abovementioned report on the module:

> "It can be hard for Philosophy lecturers to explain how their subject teaches skills that can be transferable to the work place, since their work place is still a Philosophy building and their work is writing Philosophy papers. It was much more convincing hearing it from people in other occupations." (Fisher and Tallant 2016, 425)

Second, one can describe Communicating Philosophy as a *communication* module: by recognising how communication is shaped by circumstances, and trying to re-frame   21
philosophical topics across different contexts, students gain a more flexible competence with communicating ideas. This should be recognised as a philosophical skill in its own right: the ability to frame one's ideas and arguments in language appropriate to the setting is an integral part of effective arguing, even if such skills are often obscured by the tendency to fixate on one specific setting, namely the scholarly essay.

Student Cohort

Communicating Philosophy is a third-year undergraduate module at the University of Nottingham. It is a 20-credit module and represents one sixth of the content of a full-time student's required credit-bearing education over a year. The module is available to students studying Philosophy either on a single-honours or a joint-honours programme, or to students studying Liberal Arts, but there are no additional

prerequisites.

The module cohort is generally typical for Philosophy modules at the institution; for the Faculty of Arts at the university, the 2020-2021 figures are as follows:

Gender	66% female		34% male
Disability	16% with declared disability		
Ethnicity	76% white	23% BAME	1% unknown
Home/international	93% home	2% EU	5% other

Table 1: Cohort demographic figures for Philosophy modules at the Faculty of Arts at the University of Nottingham, 2020-2021 (University of Nottingham, 2021).

There are typically substantial numbers of both single-honours and joint-honours students; for 2022-2023, the distribution was 62.5% single-honours, 37.5% joint-honours.

Teaching Structure

The structure of Communicating Philosophy is as follows. Over a semester comprising ten teaching weeks, students are instructed first in *theory topics* and then in *applied topics*. The theory topics occupy the first two weeks of teaching, with the applied topics occupying the remaining eight.

The theory topics are issues in philosophy each of which is selected for the following features: students are unlikely to have studied the topic before; the topic is sufficiently self-contained to be taught in a single week, and the topic can comfortably be applied to a wide range of settings.

For the 2022-2023 academic year, the chosen theory topics were:
Theory 1: Transformative experience and decision-making, based on Laurie Paul's (2014) influential book on the topic, with the assigned reading a work in which she

applies her ideas specifically to the decision whether to have a child (Paul 2015).

Theory 2: Games and gamification, incorporating questions both about how to define games and about the impacts of gamifying different activities, with the assigned reading being Nguyen's (2021) which argues that Twitter gamifies communication in a morally problematic way.

The applied topics are a combination of *professional settings* and *modes of communication*, each of which brings in some particular considerations for effective communication. These topics typically involve the contribution of content from guest speakers and each is linked to a short, project-based assessment. Table 2 indicates the distribution of topics and the relevant assessments for 2022-2023.

Topic	Domain	Assessed project
Applied 1	Communication in charities	Charity funding application
Applied 2	Communication in the law	Legal case expert evidence
Applied 3	Communication through posters	Interdisciplinary conference poster
Applied 4	Communication in social media	Tweet thread
Applied 5	Communication in teaching	Lesson plan
Applied 6	Communication for postgraduates	Postgraduate funding application
Applied 7	Communication through speech	Podcast pitch video
Applied 8	Communication through fiction	Flash fiction

Table 2: Applied topics and assessment projects for Communicating Philosophy.

An example of a topic–assessment pairing is as follows. For the domain communication in charities, students are introduced to some key concepts for understanding the third sector such as differences between charities and NGOs, the distinction between grants and contracts, and the kinds of accountability that charities need to make sure they have in order to back up their claims to positive impact. The students then consider how reflection on and awareness of their philosophical skills helps in this setting: charities value clear communication, need to

analyse problems, and benefit from persuasive argumentation. Finally, the students are introduced to the considerations in play when charities apply for funding, e.g., how to show sustainability, risk mitigation, and producing and demonstrating additional social value. This last section feeds in directly to the assessment: students are provided a mock funding call from a fictional charitable foundation, and they need to produce a brief funding application proposing a project that makes use of a philosophical topic, which in the 2022-2023 academic year was Theory 1, games and gamification. Examples of ideas presented by students included integrating learning into football for disadvantaged students by getting them to complete quizzes relating to locations visited for matches, and using positive gamification with ex-prisoners engaging in learning and community-building, both to provide motivation and to encourage critical reflection on how society rewards and punishes citizens. A key component of assessment in each project is showing proficiency with the philosophical research through the way they communicate their ideas.

Learning Outcomes

The module's learning outcomes are given below for reference.

"Through this module, students will:
- Gain competence in key skills for communicating philosophy within different contexts, such as:
  - Using appropriate language;
  - Recognising norms and expectations within a context;
  - Engaging audiences.
- Develop confidence in relating study of philosophy to careers, by:
  - Understanding more fully their possible careers after graduating;
  - Recognising opportunities to apply philosophy to those careers;
  - Improving philosophical skills that are useful in those careers.
- Develop skills in constructive collaboration, including:
  - Giving and receiving feedback;
  - Critically assessing expectations through engagement with mark schemes;

- Interpreting peer responses to one's work;
- Implementing recommendations effectively." (Egerton 2022, 1-2)

Reflection on Module

The module's learning outcomes attempt to capture the flexible, skills-based nature of the teaching. The module tries to intervene to prevent the possible outcome of philosophy study in which the student has become highly proficient in skills of explanation, analysis and argument, but is only able to effectively display those skills in settings that closely resemble academic essays. Instead a guiding concept of the module is Schön's "professional artistry" (1983, 1987), an idea which has been used to shape the goals of teacher training in higher education (see, e.g., Ashwin et al. 2015, chapter 3) and is well-suited to capturing the kind of practice that the module aims to foster, where one "reflects on the understandings which have been implicit in [one's] action, understandings which [one] surfaces, criticizes, restructures, and embodies in further action" (1983, 63). Professional artistry requires the exercise of skills that go beyond what can be planned out and exercised consciously, where nuances in and changes to the facts on the ground minutely shape decision-making, much like an effective teacher does not have a rigid lesson plan that exhausts their ability to educate, but rather is constantly re-evaluating, assessing understanding, and making decisions about how to frame concepts and facilitate activities in ways that promote learning for the class they are presented with.

Student experience on this module is typically very positive: the module is popular, and students typically report that the module is engaging and that they enjoy the completion of innovative tasks that go beyond the essays they are used to producing. However, there are two prominent challenges presented by the module. First, students find it difficult to feel confident in the topics they have learned in the short time available, so they find themselves completing projects communicating the ideas

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while they are underconfident in their understanding of the ideas, which is reflected in a frequent need to revisit concepts to resolve misunderstandings and by a high student perception of workload. On the university's standard student feedback surveys, in 2021-2022 the average result for the question on manageability of workload was 4.0 out of 5, slightly lower than the institutional average of 4.1, though in 2020-2021 the average result fell far short of the average, at 3.4. Second, students struggle to recognise the common threads of clear communication that run through the module so that they are unclear on how to create good work. This is also reflected in the university's feedback surveys, with a question regarding clarity of marking criteria averaging a result of 3.8 against the institutional average of 4.1.

Game Rationale and Design

Aims of Innovation

It was in response to the above two problems, among others, that I decided to introduce a novel game-based learning activity to the classroom for this module. There were two related aims behind doing this. (1) *Integrating two philosophical topics, thereby increasing competence in both*, would be made possible by creating an educational game (Theory 2) whose subject matter was transformative experience (Theory 1). (2) *Improving student confidence in communicating philosophical ideas in novel ways* would be made possible by demonstrating a novel way to communicate philosophical ideas in teaching delivery, and a game explicitly dealing with a philosophical topic fits this description.

Some of the above might have been possible by exploiting an existing game – for instance, demonstrating philosophically relevant content in a commercially available board game might have achieved some of (2), helping students to broaden their

understanding of how philosophical ideas could be communicated. However existing educational games would not allow the kind of independent, novel approaches that I wanted to foster in students, and in any case there were no obvious examples of existing board games that would allow students to learn specifically about transformative experience, a topic that was a good fit for the syllabus for independent reasons (the topic is briefly explained below). It was for these reasons that I undertook the design of a new game.

I was also guided in my approach by a long-standing concern that has been raised about game-based learning – that despite widespread and enduring enthusiasm from educators (see, e.g., Kim et al. 2018, Vaz de Carvalho and Coelho 2022), it risks failing to display the positive features distinctive of games (see Susi et al. 2007, Gros 2007 on the failure of *edutainment*). This has been noted, for instance, by game designer Adrian Hon in reference to what he calls "generic gamification" (Hon 2022, 15), where crude features like points scores are added to activities, whether learning activities, work, or even games themselves.[iii] A plausible explanation for the pitfalls of games in education can be found in Nguyen's (2020, 19) influential recent account of games as offering "a vast library of agency, in which we have recorded a wide variety of different forms of agencies and which we can use to explore different ways of being an agent." If games' distinctive value consists in their exploration of agency, then excessively didactic games and mere gamified learning both fall short of the ideal because they push the player in specific directions, circumscribing their exploration and limiting the exercise of agency. It was thus important to preserve openness in the game, allowing players to explore those forms of agency.

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Game Overview

The game, titled *Are You Flourishing?*, is designed as a 2-4 player competitive card-

based game whose central conceit is that the players are aiming to *flourish* by living good lives, but where what constitutes a good life may differ from player to player and may change during the course of the game.

Players live good lives by increasing their score in certain *Measures* (of which there are five: Money, Happiness, Freedom, Power, and Legacy); all players start out with a score of 5 in each, and over the course of the game they can range from 0-10. At any time, a player will care only about a limited number of Measures, as dictated by their Values card – this might, for instance, tell them that for them the good life means achieving at least 8 Money and 7 Power (this is the *capitalist* Values card – each such card is named so that the relevant Measures loosely fit with a worldview or philosophical position), and that other Measures are irrelevant to them. They attempt to reach these scores by playing two kinds of Experience cards, which typically increase certain Measures while decreasing others, but every time they play an Experience on themselves, they must play another Experience on another player. As they cannot see other players' Values, they must take a risk each time they play by increasing certain measures for other players in the hope that they are not inadvertently producing the winning conditions for those other players, and there is thus a benefit both to masking one's own Values and to trying to figure out others' Values. The game can therefore be described as a fairly simple *hidden role* game with resource management.

Two further features are required to understand the game and how it communicates the relevant ideas. First, in order to win, players must first declare that they are winning (or, in the game's terminology, that they are *flourishing*) during their turn and take a token, and only if they have satisfied their Values at the end of the *next* turn do they officially win. This adds a *chase the leader* mechanic to the game where, by

declaring themselves close to winning, a player places themselves in a more difficult position since other players now have a clear interest in interfering with them (though players can declare themselves flourishing dishonestly in the interests of misleading their fellow players). Second, the distinction between two types of Experience card is significant. Players typically play Everyday Experiences (EE), whose effects are limited to increasing/decreasing Measures or other moderate impacts such as drawing additional cards. However, for a higher cost players can draw and then play Transformative Experiences, which often have much greater impact on Measures but more importantly can cause a player to *replace* their Values. Therefore, with a single play, a player may go from having maximised the right Measures to having maximised the wrong ones, or vice versa. Many of these cards (and some Everyday Experiences) have chancy outcomes that rely on coin flips, so players need to decide whether certain gambles are worth taking.

Rationale for Game Design

The above features are designed to line up neatly with some key concepts that a student learning about transformative experience should reflect on. In Paul's work on transformative experience, she introduces a framework for evaluating the rationality of decision-making. The standard framework for this is expected utility theory (see Pettigrew 2019), which assumes that people are able to weight their preferences according to (1) how much they prefer them and (2) how likely they take them to be. When this framework is taken *normatively*, i.e., as a way of trying to describe what agents *should* do, it advises that the *rational* choice when decision-making is to take an action such that no alternative has higher *expected utility*, where (in the simplest cases) this is a figure calculated by taking the product of the outcome's utility (how much I value it relative to others) and its probability. The irrational choice is then to take an action such that *some* alternative has higher expected utility. Stepping into

the game world: if A is a Hedonist (aiming to reach 9 or more Happiness only) and based on the Experiences in their hand can either *take up a sport* (+1 Happiness, -1 Freedom) or *run for public office* (+2 Power, -1 Happiness), the former seems clearly rational, the latter irrational.

Paul (2014, 17) then introduces the idea of a *transformative experience* – while the colloquial sense of this roughly captures the content intended, Paul breaks down transformative experiences into two aspects:

1. An experience is *epistemically transformative* for an agent if and only if that agent cannot know what it will be like prior to having that experience.
2. An experience is *personally transformative* for an agent if and only if that agent undergoes a radical change to what they value globally.

When these two features combine, Paul claims, we have a *true transformative experience*, which she takes to encompass not only outlandish examples such as becoming a vampire, or discovering that one is in the Matrix, but experiences like having your first child, and we might add other examples like experiencing bereavement or undergoing a religious conversion.

The deep challenge presented by transformative experiences, though, is not just that they greatly impact us, but that it is very difficult to fit them into the standard picture of expected utility theory. Experiences that are epistemically transformative cannot be assigned a utility, because the decision-making agent can't know what they're going to be like. This is intended to be more than the lack of knowledge associated with not having had *just this* sort of experience, as might be the case if I've eaten many kinds of bread but I've never had a sourdough loaf – it's intended to be a deep

unknowability, like the inability to know what a certain sense modality is like for someone who has never had it (Paul 2014, 56-70). This may be surmountable, by Paul's own acknowledgement, because while one can't assign a value to the outcome, one can assign a value to the *finding out* of the outcome.

However true transformative experiences are also personally transformative, and this gives them a distinctively difficult character. Not only is the decision-making agent unable to assign values to outcomes, they also do not know whether their global assignments of utility will change. Given this radical uncertainty, it looks as though there is no way to describe such choices in a way that allows one to describe them as rational or irrational; they are *non-rational*. While in some cases that might sound appropriate – for instance in highly extraordinary scenarios like finding that everything one previously took to be real was part of a simulation – Paul argues that this sits poorly with our impressions of what one does when one, e.g., decides to have a child (2015, 160). People think that they can make momentous choices that count as having been made well or badly! Returning to the game world: if A is a Politician (aiming to reach 7 or more Legacy and 8 or more Power) and plays the Transformative Experience *write a novel*, they have a 25% chance of gaining +3 Legacy and +3 Power, a 25% chance of reducing their Happiness to 0, and a 50% chance of changing their Values to something new and unknown. Judging what to do in this situation is, in line with the problem Paul presents, rather more challenging since the outcomes can differ wildly, and include a significant possibility of unpredictably changing the significance of every past and future outcome.

The remaining aspects of Paul's view need not concern us here; we have explained enough of the ideas to be able to demonstrate the rationale for the game. The straightforward ability to evaluate one's choices for everyday experiences is captured

by standard actions, where it is straightforwardly sensible if I currently have, say, Nietzschean Values (so I desire only to get at least 9 Power) to play an Experience that gives me +2 Power and -1 to some Measure that doesn't matter to me such as Money. Some decisions will also involve judgements of probability: I may be deciding whether to take an action that has a 50% chance of giving me +2 Power but a 50% chance of giving me -2 Power. But it is with Transformative Experiences that the substantial opportunity to reflect comes. These affect one's Measures in unpredictable ways, but many of them also have some chance of changing one's Values – and since they can be played either on oneself or on another player, this means that someone may either choose to undergo this unpredictable change, or they may have that unpredictable change forced upon them.

Various aspects of the game are designed to encourage reflection from those playing it, including some aspects which (a) are more peripheral to the central concern of the game and (b) were not explored in this particular teaching activity, so they are not explored further here. Overall, the intention was to provide an opportunity, after the initial learning of the key concepts for transformative experience, for students to explore those concepts in a free fashion and to think not only about the aspects of transformative experience that the game did capture but also those that it didn't, including on the interesting and problematic aspects of making the activity a game and how that might impact one's understanding of what happens.

An Example Passage of Gameplay!

The following describes an idealised passage of gameplay, indicating mechanics as well as demonstrating some of the intended outcomes of the process.

Thi and Laurie are in the middle of a 2-player game of *Are You Flourishing?* Thi has

Libertarian Values (aiming for ≥ 9 Freedom); Laurie has Artist Values (aiming for ≥ 8 Legacy and ≥ 7 Freedom). As things stand, Thi has: Money 7, Freedom 7, Happiness 5, Legacy 3, Power 6, 2 cards in hand; Laurie has: Money 5, Freedom 9, Happiness 6, Legacy 5, Power 4, 3 cards in hand.

Round 1

Thi draws two EE cards. He has no way to increase Freedom, so he decides to play *You lived frugally* on himself (+2 Money, -1 Legacy) and *You performed at an open mic* on Laurie (50/50 +2 Legacy/-2 Legacy); Laurie gets heads on the coinflip so gains 2 Legacy. Thi has struggled to gain Freedom for a few turns, so he decides to discard his remaining two cards and draw a TE card ready for next turn.

Laurie draws two EE cards. She has now just about satisfied her Values but doesn't want to declare herself *flourishing* as what she wanted would be too obvious. She decides to play *You started a movement* on herself (50/50 +2 Power/-2 Power) try to improve another Measure but it goes badly – she gets tails and loses 2 Power. She then plays *You went to college* on Thi (+1 Power, -1 Money).

Thi: "It's a boring round for me, I'm just living within my means, but it's off to an open mic night for you – how did it go?"

Laurie: "Great actually! I tried out my new protest songs and that's inspired me to try to start a political movement… but that hasn't gone as well as I'd hoped. Hey, looks like you've found a use for the money you saved – you're off to college!"

Round 2

Thi draws two EE cards. He plays *You moved to the countryside* on Laurie (+1

Freedom, -1 Power), and decides it's time to gamble on new Values, playing the Transformative Experience *You took over the family trade* on himself (50/50 +3 Money, draw a new Value/-3 Money, draw a new Value). He succeeds and gains +3 Money, but his new Values are… Nietzschean (aiming for ≥ 9 Power). He decides to keep risking it and declares that he's *flourishing* – perhaps Laurie will inadvertently increase his Power while trying to decrease his Money?

Laurie would now like to declare herself *flourishing* but can't because Thi has the token – she thinks it's quite unlikely that Thi has gotten lucky enough to draw just the right Values but isn't sure, so discards two cards and draws a Transformative Experience. However, it's *You break a taboo* (50/50 draw 2 new Values and pick one/-1 to all Measures), and she decides that playing this would risk Thi getting to pick perfect Values and winning next turn. Instead, she cements her position by playing *You caused a controversy* on herself (+1 Legacy, -1 Happiness) and plays *You gave up your job* (+1 Freedom, +1 Happiness, -1 Power) on Thi just in case Power was something he was aiming for.

Thi: "I think you've been stretching yourself too far; time to take a break, you're moving to the countryside! And you know what, college has cost me a lot, and my parents told me I'd do better to change lifestyles and take over the family trade. So that's what I'm doing, and the business is… booming! What a smart move, I'm really flourishing now!"

Laurie: "Really? I'm not sure, what are the chances that this was just the change you needed? Anyway, I've gotten bored with rural life, I'm going to cause a stir – and if business is really going so well, looks like you can afford to give up your job."

Round 3:

Thi draws two EE cards, wondering if just maybe he'll be able to get his Power where it needs to be. It is no good, so he decides to do nothing in order to have more cards in his hand next turn. He has to admit that he is not actually *flourishing.*

Laurie breathes a sigh of relief that she judged right, and thinks there is a chance she can now win. She plays *You became a landlord* on Thi (+2 Freedom, -1 Happiness) and plays *You became an artisan* on herself (+1 Freedom, +1 Money, -1 Power). She's now in a pretty strong position: she has 10 Freedom and 8 Legacy. But, of course, next turn Thi may be able to play a Transformative Experience on her and turn the tables…

Thi: "I had a job as well? Jeez, I was definitely doing too much. But anyway now I'll… hmm, I think I'll have to just take a minute to gather my thoughts and plan for the next big thing. And I have to confess – I'm not really flourishing."

Laurie: "Aha, I knew it! Well, you know the logical next step now that you're in business – you've picked up a few rental properties. I, on the other hand, am making a stir in the countryside in a new way – I've started doing pottery. I'm doing so well at it that you might say I'm… flourishing."

Figure 1 shows the layout and appearance of the game pieces as they would be at the end of round 3 in the above passage of gameplay.

Context of Game-Based Learning Activity

The students had two opportunities to play *Are You Flourishing?* in the course of their learning. The first was during the final section of a lecture whose main topic was

games and gamification (10 October 2022) – students formed groups of four and with my facilitation they worked out how to play and played through the game. The second was during a seminar whose main topic was transformative experience (18 October 2022) – students formed pairs (this was made possible by the smaller class size) and again with facilitation they played through the game.

Figure 1: Layout of game pieces during sample passage of gameplay. 1: scoreboard (red=Thi, yellow=Laurie), 2: draw piles and discard pile, 3: Thi's hand, last Experience, Values (top to bottom), 4: Laurie's hand, last Experience, Values (top to bottom). Note that these cards would normally be hidden from other players during gameplay! © Karl Egerton.

Both times they were encouraged to talk while playing about how the game related to the topics, including both how it captured certain key concepts and how it fell short of representing certain features.

Student Experience

I was interested in evaluating students' experience for this prototype game for several

reasons. First, to establish whether the game was achieving its goals. Second, to aid in refinements to the game for future use. Third, to learn lessons that could be applied more widely to the design of games with similar educational goals. These guided my choices when surveying the students.

Study Design

Students were asked for their consent to participate in a survey in the form of a questionnaire comprising a small number of questions, as follows:[iv]

1. Did you take part in playing the game during the lecture/seminar?
2. On a scale from 1 to 5, how enjoyable did you find the game?
3. Please indicate how much you agree with the following statements:
   a. Playing the game made me think more about *transformative experience*.
   b. Playing the game made me think more about *games and gamification*.
   c. Playing the game made me think more about *ways of communicating philosophy*.
   d. Playing the game *contributed to my learning*.
4. Please pick THREE words that you would use to describe the game and write them below.
5. Are there any changes that you think would improve the game experience?

The survey was conducted online via Microsoft Forms; it opened on 8 November 2022 and remained open for three weeks, closing on 29 November 2022.

Methodology and Ethics

The key inclusion criterion applied for this study was enrolment on the module Communicating Philosophy during the 2022-2023 academic year; all students enrolled on the module were therefore invited to participate in the survey, via announcements on the virtual learning environment (VLE) and in-class. All students were informed clearly that choosing to participate or not would have no impact on their grades and would not otherwise affect their ability to complete the module in any way. This applied only to participation in the survey, not to the game-based learning activity as this was a learning activity included in the standard teaching of the module for the year. The key exclusion criterion was non-attendance at the teaching sessions during which the game-based learning activity occurred, so enrolled students who had not participated in the game-based learning activity were to be excluded in the unlikely event that they chose to participate in the survey; this was assessed in the first question of the survey. Students were provided a link to Microsoft Forms, which gave them access to the project information sheet, consent form, and survey.

Ethical approval was sought and obtained for conducting the survey in advance: the survey, project information sheet and consent form were evaluated to ensure that students were sufficiently informed of such points as that they had no obligations to participate, that they retained the right to withdraw, how their data would be used if they participated, and how they could raise any concerns about the conduct of the research.

Results

Of the 32 students enrolled in the module, 9 responded (a response rate of 28.13%). A further relevant factor here is attendance, since I was interested in surveying the

views of those who participated in the game-based learning activity. 23 out of 32 students registered their attendance at the relevant lecture, and of these, 20 registered their attendance at the seminar, so the effective response rate (response rate among those who had the opportunity to play the game) was 9 out of 23 (39.13%).

For Question 1, (assessing the setting(s) of game participation), all participants responded, and most students (6, or 66.67%) reported participating during both the lecture and the seminar; one student participated only during the lecture (11.1%) and two only during the seminar (22.2%). These results are given in Table 2.

Game participation	Responses
Lecture and seminar	6
Lecture only	1
Seminar only	2
Neither	0

Table 2: Responses to question 1: Did you take part in playing the game during the lecture/seminar?

For Question 2 (assessing how participants would rate the game's enjoyability on a scale of 1-5), all participants responded, and the mean response was 3.11, with most students (6) rating enjoyability at 3/5.

For Question 3 (assessing participants' level of agreement with several statements about how the game influenced their thinking/learning) all participants responded, and the results were as follows. The median and mode response for all statements was "Agree," so students on average stated that they agreed that playing the game made them think more about (a) transformative experience, (b) games and gamification, and (c) ways of communicating philosophy, and (d) they agreed that it contributed to their learning. Agreement was not uniform, however: assigning a reasonable numerical scale to the options (-1 for "Strongly disagree," -0.5 for

"Disagree," 0 for "Neutral/don't know," +0.5 for "Agree" and +1 for "Strongly agree"), the mean results were (a) +0.5, (b) +0.39, (c) +0.44 and (d) +0.28, indicating most reliable agreement with "Playing the game made me think more about transformative experience" and least reliable agreement with "Playing the game contributed to my learning". The distribution of responses is displayed in Figure 2.
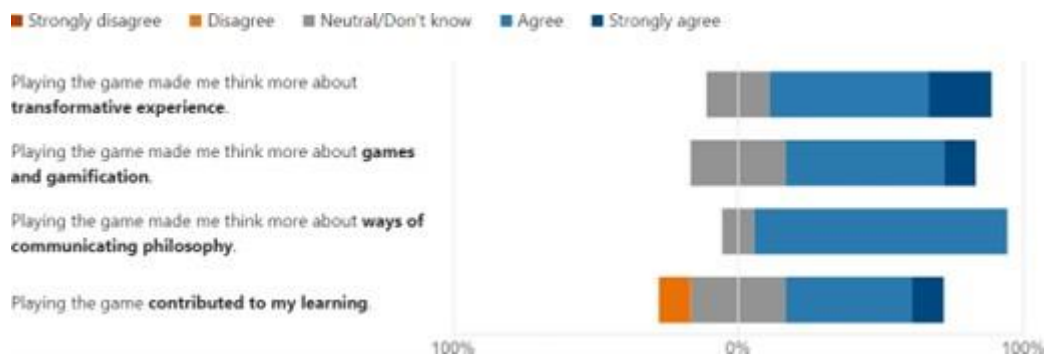

Figure 2: Distribution of answers to Question 3.

For Question 4 (assessing the words participants associated with the game) 8 participants (89%) responded. The responses were grouped together where meanings were judged to be sufficiently similar: the most common groups of response were "Amusing/fun/enjoyable" (5), "Complex/detailed" (3) and "Informative/educational" (3), followed by "Engaging" (2), "Interesting" (2) and "Confusing" (2). The grouped results are represented graphically in Figure 3;[v] the full ungrouped results are given in table 3 in the appendix.

Figure 3: Frequency of words associated with game in answers to Question 4.

For Question 5 (assessing participants' views on potential changes that would improve the game experience) 5 participants (56%) responded. Their responses were grouped together where the suggestions were judged to be sufficiently similar, and the results were as follows: more time to explain the rules (2); clearer instructions (2); more time to play (1); simplifying the game (1); and larger game board (1).

The full ungrouped results (including information about an excluded question; see endnote 4) are given in table 4 in the appendix.

Reflections

Interpretation of Results

The central question to be asked of the results is: *do they show that the game can fulfil the two stated aims of the innovation?* Interpreting the relevance of the results for each question to the aims as stated earlier is a complex matter, though some questions are clearly more pertinent to one of the aims, so I follow a rough division below.

Parts (a) and (b) of Question 3 were more relevant to Aim 1: to integrate two philosophical topics and increase competence in both. Participants typically responded positively to being prompted on whether they were made to think more about both transformative experience and games and gamification, with the former slightly favoured, and no participants responded in the negative. It is also notable that some of the repeat responses to Question 4 suggested some success for Aim 1; "Informative/educational" (3) suggests recognition of the game's role in providing information relevant to their learning, and "Gamification" (1) and "Experiences" (1) show that ideas relevant to the topics were prominent for some participants.

Part (c) of Question 3 was particularly relevant to Aim 2 – to improve confidence in communicating philosophical ideas in novel ways – and the fact that 89% of participants expressed agreement is suggestive of success here; the response "Simulation" to Question 4 also suggests reflection on what kind of activity the game was, but as this was only one response the significance is limited.

A further important question to be answered is: *were there benefits and/or drawbacks to achieving Aims 1 and 2 through the medium of a game-based learning activity?* There is evidence for both sides here, which I will take in turn.

How enjoyable the students found the game is important to whether it was effective as a learning activity, since intuitively one of the primary benefits of this teaching method is its ability to generate enjoyment and to be a positive experience for learners. In this respect the results for Question 2 indicated a modest success – the mean enjoyment rating of 3.11 indicated that participants generally found the game moderately enjoyable. It may be unrealistic to expect the highest possible enjoyment rating for gameplay conducted in a learning setting, since (i) students are aware throughout that their overriding goal is to learn (with many students engaging with this goal primarily through trying to establish what they need to know to pass the assessments) and (ii) by the very nature of the activity the students have not actively *chosen* to play a game. However, the moderate enjoyment gives both reason for encouragement and a goal for further refinements – if the game is to avoid the negative side of game-based learning, it should aim to achieve consistently high enjoyment ratings. Bolstering this prospect, further evidence that this was an area of moderate success is the prominence of "Fun" and similar terms in responses to Question 4 – as made vivid by Figure 3, "Fun/amusing/enjoyable" was the most frequent response (5).

How about indications of drawbacks to the activity? One could of course interpret Question 2 more negatively, but the context given above for expectations of enjoyment ratings alongside the supporting evidence of Question 4 suggests that this wouldn't be appropriate. More concerning are the answers to Question 3 part (iv), "Playing the game contributed to my learning," received the lowest average score within that question, and was the only part to prompt the response "Disagree" from any participant. If only a moderate majority of students felt confident in saying that the game contributed to their learning, this might be seen as undermining the value of the activity at least if seen as a purely pedagogical one. However, the goal of including this activity in a lesson is not to be crudely instructive or didactic: plausibly the complex nature and uncontrolled, student-led activity mean that other activities are more likely to be directly instructive. Rather the expectation was to improve student competence by allowing them to think creatively about these topics, and to explore them in keeping with the skills-based focus of the module. This means that the clear majority of positive responses for parts (i)-(iii) of Question 3 to some extent mitigate the less impressive results for the final part.

Furthermore, the answers to Question 5 give a plausible explanation for the game's shortcomings and suggest possible pathways for improvement. The two repeated answers when offering ways to improve the game were to provide more time to explain the rules and to give clearer instructions, two changes which are quite closely related. This suggests that one shortcoming of the learning activity related importantly to delivery; it was not explained as clearly and efficiently as it might have been. This fits also with my anecdotal experience of the classroom environment and of how gameplay proceeded in general; it is often challenging to introduce new players to a game clearly while maintaining their interest, and this was no exception. Nevertheless, these results suggest that additional efforts dedicated to effective

instruction on gameplay, especially through removing any unnecessary complexity, are likely to be rewarded with a better experience for all.

Study Limitations

It is important to note some limitations to this study. First, there was no control group, as given the teaching setting this would not be feasible – devoting lecture time to introducing the activity meant that all students would take part, and it was judged that the alternative of isolating the gameplay to seminars and including the activity only for one seminar group would result in sample sizes that were too small. This point is related to two further limitations, which were the overall group size and the survey response rate. With a class size of 32, there were already limitations in the lessons that could be taken from the data, but this was limited further by the 28.13% response rate (effective response rate 39.13%, as discussed previously). Future work relating to this or similar games would benefit from finding strategies to improve response rate.

Two additional limitations can both be traced to a single cause: there were procedural delays in confirming institutional ethical approval for the study. First, this meant that there was a longer gap than had originally been planned between the learning activity and survey completion (gameplay was completed on 10 October 2022; the survey opened on 8 November 2022), meaning that participants may have forgotten aspects of their gameplay experience by the time they were responding to the survey, and equally their interpretation of the impact of the activity might have been shaped by their further experience of module learning activities. Second, this delay meant that it was no longer feasible to complete the originally planned structured interviews (see endnote 2 for an explanation of the relevant question that was withdrawn from the main report of results). These would have provided an opportunity for richer data

on the gameplay experience that could have provided nuanced insights into how students would describe the game and the experience of playing it, and future work on this game would do well to gather this more detailed data.

Wider Lessons and Further Work

Overall, the results of this study suggest that there is significant potential for using game-based learning activities to teach complex philosophical skills. A particular benefit of such an approach, which was especially useful given the specific module objectives but would potentially be seen as a benefit for a wide range of philosophy learning environments, is its ability to support students in diversifying their understanding of ways to communicate philosophical ideas.

Furthermore, there is a benefit to designing a game-based learning activity with the focus more squarely on the game element than on the learning element, as students have the opportunity to go through a different set of learning experiences with different benefits than they would if they were taking part in more traditional game-based learning. However there is also a strong indication that in order to access the benefits of this kind of learning activity, substantial effort needs to be put not just into the structure of the game but into facilitation, and specifically into explaining the rules efficiently enough that it is a practically feasible learning activity, and one that makes the most of its distinctive benefits by providing students with the space to explore, indeed to *play with*, the relevant concepts. A key goal of the innovation was to avoid the trap of generic gamification, and the game's design reflected this by encouraging interaction between players (through affecting others' in-game lives), generating narratives (through the wide range of experiences depicted) and communicating the key ideas through gameplay rather than by attaching teaching content (e.g., by having Transformative Experience cards reveal their significance

through their impact on player strategy, which was designed to be drastic and unpredictable). The game's design was also notable for what was missing - point-scoring was linked to successful gameplay rather than to ability to, say, choose the correct definition of subjective value or place a described experience within the appropriate category. Rather than simply instrumentalising learning, this activity trusted that students would benefit through exploratory play, and the positive impact this had should encourage optimism about taking this more nuanced approach to game-based learning.

One additional point that is deserving of further attention is that, as for any learning innovation, the inclusion of this game-based learning activity required the allocation of teaching time that could have been spent differently. The previously used teaching activity for the session in which gameplay took place was a typical discussion-based seminar in which students would be encouraged to provide putative examples of ordinary and transformative experiences and to build on these toward more complex questions of analysis and critique. I would contend that the novelty and interest of the activity would make up for the loss of straightforward teaching time, and that many of the same benefits would be seen by students since the gameplay still allows students to identify and reflect on different putative transformative experiences. The additional complexity of game-based learning might be thought to place additional strain on teaching resources, but this is a design issue which one would expect to be managed through iterations of the novel activity, and which might even be addressed by involving students in the refinement of the design as part of reflection on their learning. More work on the risks and benefits of game-based learning in these settings would go some way to identifying the most effective means of implementation.[vi]

Further work on this game and/or others with similar aims would do well to seek opportunities to gather evidence from a larger sample size, closer to the time of gameplay, and to gather qualitative evidence on player experience through, e.g., structured interviews. Another potential opportunity for such games is in the context of knowledge exchange and outreach, which would involve a somewhat different set of goals but which could also provide additional insights into the game in its original teaching setting.

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[ii] A self-conducted review of modules offered by the top 10 UK institutions for undergraduate Philosophy as ranked by the Guardian University Guide (The Guardian 2022) supports this claim. Based on publicly available information, of 286 modules reviewed, only 6 (2.1%) could be identified as explicitly skills-based, and only 2 (< 0.1%) could be identified as explicitly communication-based. None of the modules found were similar in overall structure to Communicating Philosophy.

[iii] On an intuitive understanding of gamification the gamification of games can seem, depending on the definition used, to be either trivial (if, e.g., defined as "an intentional process of transforming any activity…into one which affords positive experiences, skills and practices similar to those afforded by games" [Hamari 2019, 1]) or impossible (if, e.g., defined as "the use of game design elements in non-game contexts" [Deterding et al. 2011, 10]). However, Hon claims that gamification *can* be recognised within games (2022, chapter 5); in future work I aim to explore how this is possible in a way that illuminates the potential threat it poses to the value of gameplay.

[iv] The list of questions provided in the main text is shortened for simplicity and relevance. Below is a list of excluded questions and the rationale for exclusion. The question "Did you play the game at any time other than during the lecture/seminar?" has been removed from reporting because it was included with the intention that students would have opportunities to borrow the game, but this proved to be impractical so no students had this opportunity; as would be expected, all respondents answered "No" to this question. The question "Please indicate here whether you would like to be contacted about participation in a short (approx. 15 minute) follow-up structured interview" has been removed from reporting because it was included with the intention to supplement the data collected in the survey with richer data through conducting structured interviews, but due to delays in receiving ethical approval for the study, this component was no longer practical and was abandoned. 3 respondents (33%) gave consent to be contacted for interview. The question "Please provide any other feedback here" has been removed from reporting because it received two responses, but both of these were judged to be clear examples of responses to Question 5, as they both provided direct suggestions about improving the game experience. In the appendix I provide the full answers to Questions 5 and 6 for information.

[v] In Figure 3, grouped words are displayed under the most frequently occurring word of the group: "Amusing/fun/enjoyable" is displayed as "Fun", "Complex/detailed" is displayed as "Complex", and "Informative/educational" is displayed as "Informative".

Appendix

Question 4: 'Please pick THREE words that you would use to describe the game and write them below.'		
Fun	*Fun*	*Fun*
Confusing	*Confusing*	*Engaging*
Engaging	*Interesting*	*Interesting*
Complex	*Complex*	*Informative*
Informative	Enjoyable	Educational
Detailed	Long	Gamification
Simulation	Amusing	Relatable
Experiences	Philosophy	

Table 3: Full Ungrouped Results for Question 4, Ordered by Frequency (Repeated Words in Italics).

Question 5: Are there any changes that you think would improve the game experience?
Taking more time to understand the rules.
I would have needed more time to play it
For me it would have helped if the game slightly simpler - I found it quite confusing at first and only really got the gist of it by the end of the seminar.
Clearer instructions would make the game more enjoyable
a bigger game board and bigger spaces for the counters
Question 6: Please provide any other feedback here.
More time to understand the game
I think more simple instructions written step by step

Table 4: Full Ungrouped Results for Questions 5 and 6 (Combined in Main Reporting).