



IMAGINATIONS:

JOURNAL OF CROSS-CULTURAL IMAGE STUDIES |
REVUE D'ÉTUDES INTERCULTURELLES DE
L'IMAGE

Publication details, including open access policy
and instructions for contributors:

<https://imaginationsjournal.ca>

A Research-Creation Episteme? Practices, Interventions, Dissensus Editors: Agata Mergler, Joshua Synenko

Image credit: Mergler, Agata. "Flowers no 6", wet
cyanotype contact print and digital rendering.
Poznań, 2022.

To cite this article:

van Vught, Jasper, and Stefan Werning. "Facilitating Social Perspective Taking
in Class through Discursive Game Design." *Imaginations: Journal of
Cross-Cultural Image Studies* vol. 15, no. 3, 2024,
pp. 167-207, doi: <https://doi.org/10.17742/IMAGE29716>.

To link to this article: <https://doi.org/10.17742/IMAGE29716>



The copyright for each article belongs to the author and has been published in this journal under a **Creative Commons 4.0 International Attribution NonCommercial NoDerivatives** license that allows others to share for non-commercial purposes the work with an acknowledgement of the work's authorship and initial publication in this journal. The content of this article represents the author's original work and any third-party content, either image or text, has been included under the Fair Dealing exception in the Canadian Copyright Act, or the author has provided the required publication permissions. Certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian Copyright Act.

FACILITATING SOCIAL PERSPECTIVE TAKING IN CLASS THROUGH DISCURSIVE GAME DESIGN

JASPER VAN VUGHT

STEFAN WERNING

This paper proposes and assesses a replicable game (co)design technique to encourage social perspective taking in the higher education classroom. Fully embracing the potential of research creation approaches, this discursive game design methodology approaches games as mediators of knowledge, emphasising the process of (re)creating, modifying, and comparing different game iterations. The paper reports on two classroom exercises that draw inspiration from *Dungeons & Dragons* and the *Checkered Game of Life* to foster perspective taking across different “learner personas” and different world views. Finally, this paper discusses how notating game modifications affords continuous game-based dialogue across student generations.

Cet article propose et évalue une technique de co-conception de jeu reproductible pour encourager la prise de perspective sociale dans les salles de classe de l’enseignement supérieur. En embrassant pleinement le potentiel des approches de recherche-cr ation, cette m ethodologie de conception de jeux discursifs aborde les jeux comme des m ediateurs du savoir, en mettant l’accent sur le processus de (re)cr ation, de modification et de comparaison des diff erentes it erations du jeu. L’article rapporte deux exercices en classe inspir es de *Dungeons & Dragons* et du *Checkered Game of Life*, visant   favoriser la prise de perspective entre diff erentes “personas d’apprenants” et diff erentes visions du monde. Enfin, cet article examine comment la documentation des modifications du jeu facilite un dialogue continu, fond  sur le jeu, entre les diff erentes g en erations d’ tudiants.

INTRODUCTION

Despite their increasing prominence as a teaching tool, even serious games often become “masters of the player” (Gadamer 1989), forcing learners into a mould where only certain playing behaviours are valid and certain perspectives are attended to. Due to their increasing technical sophistication, many learners still inherently view games as products rather than a language to express and critique different perspectives. In contrast, making games can help unlock the discursive potential of the medium (Werning and van Vught 2021, Glas et al. 2021).

As a form of research-creation, game design has been used to explore the critical and communicative potential of the medium (Loring-Albright 2015; Odendaal and Zavala 2018), imagine more inclusive (socio-technological) futures (Odendaal and Zavala 2024), and design for social innovation (Bayrak 2019). In the classroom, making games has found popularity in the wake of the constructionist movement in education (Kafai and Burke 2015), having shown effectiveness in learning computational thinking (Werner, Campe, and Denner 2014), learning about specific content addressed in a game (e.g., math games, see Ke 2014), increasing collaboration skills (through a competitive spirit) (Smith and Bowers 2016), sharing indigenous culture (Kultima and Laiti 2019), and supporting empathy (Schrier et al. 2021). However, because all these approaches still focus on the creation of a single, and often finished, product, which comes with the challenge of needing to account for actual players and the painstakingly long process of fleshing-out and fine-tuning ideas in production, they still fall into the trap of resigning to (the communicative potential of) a single model (what Turkle (1997) calls “simulation resignation”).

More fully embracing the potential of practice-based approaches to research and education, this paper explores a game design methodology that distinguishes itself by never actually finishing a game but instead creating, modifying, and comparing small playable “vignettes.” Because of this, the approach emphasizes process over product to, as Nelson puts it, “discover ‘what works’ or what invites

critical insights through a dialogic engagement” with the medium (2006, 109). As such, our understanding of games shifts from an object of study to a mediator of, or tool for, knowledge, skill, and attitude acquisition. Put differently, our approach forces a continued reflection on the (flaws in) modeling and mediatizing real-world situations in our research and in the classroom.

This paper further explores this, by now tried and tested, methodological framework we call “discursive game (co)design” (Glas, et al., 2021; Werning 2020; Werning and van Vught 2021) for the purpose of social perspective taking (Gehlbach and Mu 2023) in higher education classrooms. We explore perspective taking across different world views (Kolto-Rivera 2004) and “learning personas” (Cole, Werning and Maragliano 2020) via two exercises that draw inspiration from *Dungeons & Dragons (D&D)* and Milton Bradley’s *The Checkered Game of Life (TCGOL)*. As a proof-of-concept, we report on our design experiences to explore the rationale and feasibility of using game design to promote taking different (competing or complementary) perspectives and show how notating different game modifications affords establishing a continuous game-based “dialogue” across student generations.

PERSPECTIVE TAKING IN THE HIGHER EDUCATION CLASSROOM

Social perspective taking (SPT), the process of “discerning the thoughts, feelings, and motivations of one or more targets”¹ (Gehlbach and Mu 2023, 283), is generally accepted as a central process in establishing, shaping, and maintaining a wide range of different types of social relationships (e.g., marriages, coworkers, in-group/out-group). And with ideological and affective polarization increasing in politics and society (Kleinfeld 2023), social perspective taking becomes increasingly important in cueing bilateral understandings in spite of cultural, religious, and political differences.

However, SPT often does not occur automatically but requires conscious cognitive and emotional effort. As Gehlbach and Mu (2023) explain, perspective taking is a complex aptitude, encompassing both a motivational component and a performance component (devising

and executing strategies) with different factors inhibiting or encouraging the process at these different levels. While this can be discouraging on the one hand, it also offers opportunities for educators who wish to broaden the scope of their education beyond the qualification of knowledge and skills into domains of socialization and subjectification (see Biesta 2020). As Parra et al. (2020) argue, on the “playground” of the classroom political friction can (and should) be made educational to “learn democracy” whereby antagonisms inherent to human relations (due to diversity and plurality) are experienced and practiced to turn them into more fruitful “agonisms” (Mouffe 2005).

Practicing SPT as a skill in higher education classrooms is by no means a simple feat, if only for the fact that it can exist in a wide range of different ways. For one, SPT can occur on a broad continuum between the more arbitrary process of trying to discern a player’s motivation or strategies for actions when designing a game (Dishon and Kafai 2020) to the much more consequential process of trying to relate to others in spite of socio-cultural differences. Furthermore, SPT can occur through direct interaction or mere observation; with the subject being present or absent; with a subject in the moment, the past or the future; with a real or fictional subject; and with a single or multiple subjects (Gehlbach and Mu 2023, 284). And finally, SPT, especially in vernacular use, is often conflated or confused with other concepts or constructs like empathy, social and emotional intelligence, and theory of mind.

Therefore, when exploring game design as a methodology for promoting SPT, the concept requires some clear scaffolding. Here, we make use of the four phases that Gehlbach and Mu (2023) identify when trying to discern what actually happens when someone engages in perspective taking. These phases offer clear and useful guidelines for our design exercises because they nicely align with different steps in the iterative process of game design without negating the complexity of the SPT process. These four phases are as follows:

1. Becoming consciously aware of a subject;
2. Becoming motivated to try and take on the subject's perspective by weighing how beneficial it will be relative to the cognitive and emotional effort required;
3. Employing strategies to gather information about the subject and facilitate inferences about what the subject could be thinking or feeling;
4. Evaluating how accurate the SPT attempt is on the basis of feedback provided directly or indirectly by the subject. (Gehlbach and Mu 2023).

These four phases have come to inspire and structure the two game design exercises we report on below, and help to understand at what level the SPT process is potentially encouraged (or inhibited).

CHALLENGES AND OPPORTUNITIES OF RESEARCH-CREATION IN THE CLASSROOM

Over the past two decades or so, there has been a slow but steady increase in the interest in research-creation initiatives in the field of media and (the performing) arts (see Allegue et al., 2009; Smith et al., 2009; Nelson 2013). Especially in the United Kingdom, Canada, and Australia there are increasing research-creation opportunities in terms of PhD trajectories (Ellis, et al. 2018; Midgelow et al. 2019), funding (Boyle 2012; Roms 2010), and publication venues (*Journal for Artistic Research*, *Journal of Embodied Research*). However, it seems that this increased interest in research-creation has not yet overflowed into the domain of (undergraduate) education, especially here in the Netherlands.

The reasons for this may be manifold. Practically speaking, the time-consuming nature of many research creation initiatives may keep educators from implementing them in their courses. Institutionally speaking, the differentiation from vocational universities of applied sciences in the Netherlands may implicitly or explicitly keep research universities from focusing on the development of practical

skills. And epistemically speaking, the implementation of research-creation in the curriculum challenges many of the established ideas of what knowledge is and how it is acquired and transferred.

However, despite these challenges, we are still pursuing research-creation in our undergraduate programme *Media and Culture*² at Utrecht University for the distinct opportunities it offers the media and culture student. We'll list two of these opportunities here to further contextualize the (ambitions of) the project we report on in this paper.³

First of all, we see research-creation in the classroom as a way for students to expose and challenge media conventions and habitualized perspectives of how media work and/or model the real. Here, we see opportunities for research creation to encourage a higher order of learning wherein students move beyond an application of an existing body of knowledge into a domain of invention where more conventional artistic practice and habitualized ways of knowing are defamiliarized. Or, as Bogost et al. argue in their "Georgia Tech approach to game research" (2005), "new knowledge [is created] through the discipline of making things."

Secondly, as outlined in the introduction, research-creation broadens the students' understanding of media from an object of study to a mediator of knowledge acquisition and distribution. Here, making media (and games specifically) provides students with a new modality for exploring different types of relations in (socio-cultural) systems and datasets. Werning (2020) for instance argues how our access to data is always mediatized, and that the different sensory modalities in which the data exist (through processes of visualization, sonification, physicalization (Bader et al. 2018), or, as Werning proposes, translation into games) all offer distinct opportunities and challenges for gaining insights into the dataset. Or, put differently, having students create and compare different mediatizations of (data from) the world around us encourages both knowledge of the different media and what is mediated.

DISCURSIVE GAME DESIGN AS METHODOLOGICAL FRAMEWORK

For the practice-based teaching interventions outlined below we follow the Discursive Game Design framework (DGD). Compared to previous iterations of the framework (for a more detailed breakdown see e.g. Werning and van Vught 2021), this article a) specifically considers its suitability to foster social perspective taking and also b) proposes a system to notate, archive, and compare game modifications. Based on an evaluation of existing notation systems for gameplay, this system—if for example applied over multiple iterations of a course—is essential to retrace game-based discourses and incentivize perspective taking across student generation as well as empathizing with peers beyond the participants’ own cohort.

Adapting discursive game design to facilitate SPT

Yasmin Kafai and Quinn Burke’s notion of constructionist gaming, originally formulated in 2015, already acknowledges that game-making may not only allow for acquiring and practicing technical skills but also facilitates identity formation and performance as well as the capacity to collaborate. For the case at hand, a more recent iteration of the concept, explicitly tailored to “cultivat[e] perspective-taking” (Dishon and Kafai 2020, 3), is of particular relevance. Accordingly, learner-created games (or, in our case, modifications of existing games) are conceptualized as “objects-to-think-with” (3), a term reminiscent of Sherry Turkle’s (2011) notion of “evocative objects” as the titular “things we think with.” While the connection remains implicit in the text, it is productive as Turkle reminds us that evocative objects engage us both cognitively and emotionally, for example by personalizing them or simply through repeated use. Similarly, modifying a game—possibly one that learners are familiar with, such as *D&D*—both personalizes the original game-as-object and enables thinking through the modification through repeated tinkering and playtesting. Dishon and Kafai’s findings suggest potential for SPT, indicating a perception among younger learners of “the game as a product to be used by others,” but also a “tension between participants’ focus on their own experiences and their attentiveness to players’ perspectives” (9). Therefore, it is important to “explicitly

scaffold engagement in PT” (9); while we co-design familiar games and work with adult students rather than children, this remains an important consideration.

Second, the work of Schrier et al. (2021) on running game jams in Nigeria “to support empathy and compassion” (60) provides valuable inspiration. Intercultural perspective taking is not a specific focus of the article at hand, but Schrier et al. show that both concepts like empathy and their socio-cultural preconditions are heavily dependent on cultural contexts. Their goals are “perspective-taking, identity exploration, and connection to others through the process of design” (61) with participants aged 12-20. While the two games created during the game jam are not discussed in detail, both seem to thematize situations of displacement and loss clearly specific to the region, focalized through a protagonist in a similar position to the participants.

Similarly, Annakaisa Kultima and Outi Laiti’s (2019) work on game jams with indigenous Sami communities provides anecdotal evidence of exploring different perspectives and identities—though within one cultural group—through game-making. For example, the text emphasizes the affective qualities of “perspective work,” as participants describe “reflecting their own thoughts and perspectives during this jam [...] as an empowering experience” (14).

A third and final inspiration is the work of Odendaal and Zavala Barreda (2024) on “participatory board game design” (292), which builds on the authors’ earlier (2018) work on board game design to promote algorithmic literacy and critical thinking about emerging technologies. While our source material is also analogue games—a board game and tabletop RPG respectively—the materiality of board games is of lesser concern for the case at hand. The process Odendaal and Zavala describe leads to a finished game as its product. It is split up into four consecutive workshops in which different groups (with a few overlapping members) co-design the game in different phases by using the results of the previous group(s) as material. The first group designs a “playworld,” the second the “core mechanics” situated in that scenario, the third group opportunities for “subversive play” based on the previous group’s rulebook, and the fourth group

adds the “game content” (295). The authors argue that this participatory structure, which appears inspired by techniques like the *cadavre exquis* (exquisite corpse) used by surrealist artists and experimental literature workshops like the Oulipo, enables “inclusivity and polyvocality” (308) in ways that traditional (particularly commercial) design workflows do not afford. Especially the latter is a useful concept that, albeit not explicitly defined by Odendaal and Zavala, arguably both requires and practices perspective taking, identifying with the previous groups’ design work and potential motivations.

In contrast to the aforementioned method texts, the two techniques within the DGD framework outlined in this article foreground the co-creation—as defined by Cizek and Uricchio (2022)—of existing games and game systems rather than creating new games. Even though our material is analogue games, which are usually not discussed in these terms, the process can be understood as a form of “modding” (e.g. Werning 2018), and distinct versions of the two source games (as well as subsequent modifications) will be referenced as “mods” below.

In our classrooms, this focus on “modding” existing games is not just important because it offers students a basic structure to work from and discursively engage with. It is also important because students in our courses usually have little game literacy to draw on, with the most formative experiences often dating back to games played during childhood. To get them on their way, it therefore helps to preemptively discuss artistic reappropriations of well-known games and try to distill replicable patterns of modification. For example, Golboo Amani’s *Unsettling Settlers: Intervention* (2018) works as an “expansion” to the iconic *Catan* board game that confronts colonial themes and mindsets by splitting players into settlers and “allies.” Essentially a reworked version of the original game, *Unsettling Settlers* is characteristically framed as a “play-based and discursive event” since the revised gameplay affords space to question the game’s system. Similarly, *The Social Justice Game* reimagines the equally iconic *Monopoly* as an asymmetrical game with unequal roles and starting conditions.⁴ As such, *The Social Justice Game*, and similarly modified ver-

sions of *Monopoly* (see Ender 2021) allow for players to experience how social class inequality is aggravated in a system that assumes a level socio-economic playing field. So, comparing different co-design directions and usage contexts can help establish a shared vocabulary to ease less avid players into the methodology.

Notating discursive game design

Following the principles of DGD, which prioritize sequences of design and redesign as ongoing critical discourse over any specific modification-as-text, we specifically reflect on how to notate these inherently unfinished examples to make the perspectives expressed within re-traceable and accessible to ‘reenactment’ via playtesting or further experimentation.

After a period of conceptual as well as practical experimentation in the mid-2000s, research on notation systems for game design is still scarce. Early examples inventively utilized imported metaphors such as the “chemistry of game design,” petri nets, or object-oriented programming,⁵ but remained difficult to implement since they did not scale well beyond simple game situations. The current popularity of modeling tools using repeated random sampling like Joris Dormans’ *Machinations* (e.g. Skinner and Niekerk 2017), which has become a de facto standard through its adoption by major game (as well as non-game) companies, implicitly shifts the focus towards balancing, that is, tweaking the mathematical parameters of a game system.

Balancing is certainly relevant from a rhetorical perspective, as when deliberately unbalancing a game, evidenced by (well-intended yet flawed) games such as *Ms. Monopoly* (2019), can communicate distinct perspectives and worldviews without changing any rules. However, the system does not lend itself to visualizing major changes to a game’s design, for example from a competitive to a cooperative or from a multiplayer to a single-player game. Instead, the pragmatic notation system we propose draws on the notion of core “loops” (Sicart 2015), that is, how the game unfolds in time, via a core game-play loop, potentially with subsequent and/or nested subloops representing sequences of supporting choices/actions.

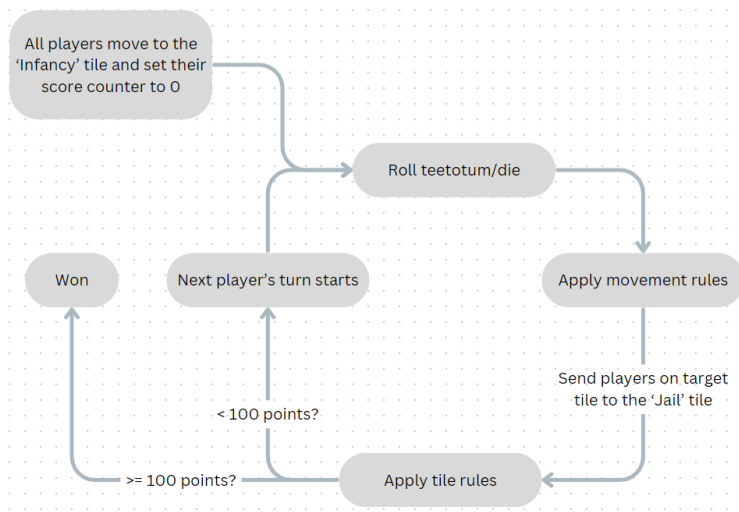


Figure 1: The core gameplay loop for a player of TCGOL as a flowchart in Canva.

These loops are not mimetic representations but necessarily represent personal choices, for example regarding the level of granularity with which the diagram represents in-game actions or the choice of labels for loop nodes. Moreover, loops are particularly easy to apply to analogue games as in our case studies because they are (at least partially) turn-based but are equally applicable to real-time games. In this case, it is useful to distinguish the timescale level that a loop represents, for example between moment-to-moment action possibilities (as in *TCGOL*) or higher-level decisions⁶ in games with multiple interlocking systems (e.g. a strategy game involving economic management and technology upgrades as supporting systems).

One option would be to use a visual concept mapping tool like *Visual Understanding Environment* (VUE), or the Quickflow feature in *Canva*, which, even in the free version, additionally affords simultaneous collaborative editing.⁷ Visualizing loops can especially help less experienced players/designers imagine emergent gameplay, and specifically *Canva* has proven to be useful because its characteristic simul-

taneous editing fits the premise of collaborative game design as a discursive and performative process.

Due to the focus on comparing perspectives and the long-term plan of eventually archiving and comparing large amounts of modifications over multiple years, a simple text-based notation style will be proposed for this study. Similar to the script used in the authoring tool *Twine*, the notation system aims for “relatively seamless connections between natural and cybernetic language” (Salter and Moulthrop 2021, 354). Thus, it should be easily readable but simultaneously incentivize a certain level of formalization, that is, it should teach participants to think about different object and action types or the specific order in which checks are performed during a player’s turn, all aspects which might otherwise easily be overlooked.

The syntax is inspired by simple scripting concepts, including sub-routines like RULES as in procedural programming languages such as BASIC, differentiation between functions and parameters (e.g. MAINLOOP and Player/ALL) or predefined instance keywords like OTHER⁸ in rules that describe interactions between players (in this case referring to the player the currently active player currently engages with). For now, the proposed syntax is only a suggestion that needs to be optimized through repeated use. This approach affords both the easy manipulability and shareability of text, e.g. via existing platforms like Github Gist,⁹ but also other text-based comparison features, such as visualizing changes between two versions of a design at a glance, or conducting semi-automated analyses of a larger corpus of notations using applications like Voyant Tools. As the notation only describes rules, it needs to be accompanied by visual materials referenced in the “script,” for example, in the case of *TCGOL* mods, custom board tiles or an additional points track. As indicated above, existing notation approaches like Monte Carlo simulations or petri nets (Muratet, Carron and Yessad 2022) tend to quickly escalate in complexity; in comparison, the scalability of this approach needs to be further explored. Notation systems usually, implicitly or explicitly, claim generalizability but, also as suggested above, are optimized for specific purposes, which normally focus

on optimizing balancing or, more recently, player retention and monetization.¹⁰ In comparison, higher-level approaches like ours, which eschew numerical balancing, are more suitable for the purpose of game-making for perspective-taking and empathetic discourse.

CASE STUDY: REPURPOSING THE CHECKERED GAME OF LIFE TO RETHINK AND RENEGOTIATE WORLDVIEWS AND VALUES

The *Checkered Game of Life* (TCGOL) is a mid-19th century American board game designed and published by Milton Bradley, which, while not widely known today, directly inspired the still popular *Game of Life* (1960). Moreover, it introduced several innovations in the much older genre of “morality games” such as “The Mansion of Happiness” (Whitehill 2015), which aimed to inform contemporary players about leading a good life and ultimately reaching “heaven” (67). While these games were almost completely luck-based, TCGOL incorporated limited luck mitigation, for example by avoiding high-risk areas of the board. Moreover, using a chess board as design metaphor instead of the traditional single path common in morality games afforded more variable and interesting “life stories” to unfold during gameplay.

This first case study involves playtesting and modifying TCGOL to express and compare different perspectives on the elusive notion of “leading a good life,” which touches upon but is not limited to increasingly frequent discussions about happiness, also in our classrooms. Differences in perspectives on the topic include diverging perceptions of happiness across cultures and age groups but also between goals like affluence and personal fulfillment (Waldinger and Schulz 2023). The observations and sample designs discussed here are derived primarily from a two-hour workshop conducted annually in a research master course titled “Play, Perform, Participate” at Utrecht University from 2019 onwards. The course usually comprises 10-15 participants; for the purpose of social perspective taking, it is important to note that the group is very heterogeneous in terms of the cultural and professional backgrounds of students, including previous experience from various humanities and social science dis-



Figure 2: The game board and original box cover of TCGOL; see https://americanhistory.si.edu/collections/nmah_321475.

ciplines and also media design fields. On the other hand, participants have predominantly (between 70% and 90%) identified as female.

A complete overview of the game rules, as offered by Burns (1978) in his close reading of *TCGOL*, is beyond the scope of this article. In a nutshell, the goal is to move across the board (see fig. 2), collect points, and eventually try to obtain 100 points, usually—but not necessarily—by reaching the upper-right corner of the board evocatively titled “happy old age.” For the purpose of social perspective taking, using an old and unfamiliar game has certain advantages. For example, Mattlin (2018) uses a similarly outdated game, *Risk* (1959), to teach international relations, modifying the game together with students to fit this purpose. That *Risk* drastically diverges from contemporary interpretations of geopolitics can be an advantage in this context because its crude procedural representation facilitates critical discussions about where it fails as an accurate model and how its comparatively basic rule system could be tweaked to implement different, more nuanced perspectives on contemporary international relations. The same applies to the representations of a “good life” in *TCGOL*; according to Burns (1978), life is “symbolically portrayed [as] a very individualistic, competitive, anti-social adventure

[in which] encounters with others are to be avoided unless they are self controlled” (61). Thus, players can observe how the game nudges them to take this perspective and offers multiple avenues for exploring alternative worldviews.

While perspectives can be relatively specific and localized, over time they coalesce into more or less stable worldviews, a concept that from a psychological perspective “has implications for theories of personality, cognition, education, and intervention” but has also been “lacking a comprehensive model or formal theory” (Koltko-Rivera 2004, 3). Synthesizing previous definitions, Koltko-Rivera argues that “a worldview defines what can be known or done in the world, and how it can be known or done,” as well as sets of values determining “what objectives, behaviors, and relationships are desirable or undesirable” (4). They are similar to schemas but operate on abstract and/or hypothetical cases and ideas rather than everyday experience and are culturally transmitted, which makes them more rigid but also intensifies the consequences of a worldview being “disconfirm[ed]” (26). While a consensual definition has still not formed in the 20 years since Koltko-Rivera’s influential article, working definitions have emerged within particular fields. Dominant political worldviews include the “traditional, modern, postmodern, and integrative” (De Witt et al. 2016), and are differentiated by desired political systems and their capacity to adapt to changing circumstances. Common philosophical worldviews, in turn, are “positivist (or post-positivist), constructivist (or interpretivist), advocacy/participatory, and pragmatist,” focusing on modes of knowledge creation and validation (Petersen and Gencel 2013, 1).

While the psychological complications of worldviews were of lesser concern for this pilot study, the spectrum from (more localized) perspectives to fully formed worldviews as well as archetypal worldviews as inspirations provides valuable orientation for students to experiment with SPT using game (co-)design in the classroom. Below, we briefly outline the workflow and discuss recurring patterns in student-created mods.

In a first short playtesting round of *TCGOL*, participants are encouraged to observe and compare different tactics, explore the entire game board and pay specific attention to the spectrum of life stories created through gameplay within their group. Playing a complete round is vital to properly assess the pacing and biases in the core game's design. Yet, for a shorter session or a second round of playtesting, the game can be played with a lower point target (e.g. 60 points) or with a randomized starting configuration. In a plenary discussion, observations are collected and grouped according to themes; recurring themes include, for example, representations of wealth, education, personal values, interactions with others, and agency vs. randomness/fate. Participants are encouraged to use the updated MDA framework (Junior and Silva 2021), which distinguishes between mechanics (core, extra, and implied), dynamics (simple and complex), and aesthetics, to interpret their game experiences and organize their observations. For example, an accumulation of "dangerous" and unproductive tiles in the lower-right corner of the board (mechanics) leads to players usually trying to avoid that area (dynamics), and interpret the content of the tiles as part of a somewhat homogenous perspective on "bad life choices," which allegedly co-occur and compound each other in some people's lives.

We discuss whether these patterns can and should be interpreted as part of more or less consistent perspectives or even a worldview (Koltko-Rivera 2004). While the game, from a contemporary standpoint, reflect a "traditional" worldview and value system, these interpretations are necessarily inconsistent. Most participants voice their unease about the prescriptive nature of defining a "good life." Yet, some point out an alleged "white" perspective (e.g. as poverty and disgrace in infancy have little effect on the game's outcome) and/or a male bias (as e.g. matrimony has no effect on the game but is close to, and thus procedurally associated with, wealth). Others have sensed a culturally distinct, in this case American and/or Puritan perspective, exemplified through the "congress" tile but also the symmetrical starting conditions, which imply equal chances at success and happiness in life. Furthermore, participants noted, similar to Burns (1978), how, despite its meritocratic premise of needing to "earn" happy old

age, the game incentivizes temporarily cooperating against the leading player at the time; that is, “the higher a player’s relative point count, the more likely is he to be the target” (56). On a related note, *TCGOL* is the direct predecessor of the still actively sold and played *Game of Life* (1960-present), which would also lend itself as source material for the exercise at hand. Yet, as Burns aptly describes the 1960 version as “reinforcing middle-class values” and being “reflective of the consumption-oriented society of the Eisenhower era” (82), we felt that it might limit the students’ understanding of perspectives too much to the neoliberalism/anticapitalism dichotomy for a first pilot study.

In a second step, participants are asked to individually think of one small change and/or addition they would apply to the game, based on their personal views on leading a good life; in smaller groups like ours and with enough time, multiple suggested changes can also be solicited as long as they are clearly idiosyncratic, for example, those based on personal real-life experience. Moreover, participants are asked to intuit whether and how these changes would affect the dynamics or even aesthetics (see above) of the game. While our students usually indicate being accustomed to playing games in educational contexts, and are familiar with how different playing styles merge with potential learner personas (Cole et al. 2021), asking them to instead change and/or add rules can unsettle these roles and create opportunities for new learner personas to emerge. The suggested tweaks are collectively visualized, for example in a Canva or Google Slides document, to identify potential common themes and outline different perspectives within the group. In a third step, participants form groups, either randomly or based on shared themes emerging from the individual suggestions, to implement a more complete perspective consisting of interlocking rule changes/additions, which may also include additional components like dice, point tracks, board tiles, or cards. With sufficient time, these mods should be playtested or mock-playtested by the group itself to compare how the new gameplay experiences compare to the corresponding perspective in the original game. In a fourth and final step, the participant groups are asked to playtest and re-imagine the perspective expressed in

a different group's design. This step is vital both for the discursive game design framework—as it represents a response not just to the original game but to another, earlier response—and for the notion of perspective taking (Gehlbach and Mu 2023), as it requires engaging with the thoughts, affects, and motivations of their peers. The re-imagined mods can critique (i.e. alter or remove) procedural elements of the original perspective but also affirm them, for example by adding further nuances and integrating the changes more deeply into the existing game rules. The performative quality of social perspective taking hereby manifests itself at three moments: a) the co-design process with the group, b) playtesting the co-designed perspective, and c) receiving feedback on one's previous perspective through the lens of another group's co-design.

Two important aspects that have repeatedly surfaced across all phases and appear conducive to effective SPT were ambiguity and humour. Several aspects in *TCGOL* are, inadvertently or not, left ambiguous, such as the historical meanings of the “fat office” tile or the reasons for including labeled tiles like “truth” or “fame” without any point value or other discernible function. These ambiguities have led to insightful discussions, both on potential historical interpretations as well as on how we would think about these topics today. Another example that will be unpacked a bit further below are the blank tiles in the game that have no semantics or functionality whatsoever. Humour derived first and foremost from the incongruity between the historical game, which in many ways is clearly a product of its time, and contemporary experiences. Moreover, the necessary abstractions of the game rules, which may lead to unintended interpretations, afford defamiliarization and humour, for example as players independently from each other tried to stay away from a political career (like the “congress” tile) because in the game that would take them further away from “happy old age.” Humour affords interpretive flexibility and critical distance from the self (see Werning and van Vught 2021), which can create the motivation to engage with other perspectives (Gehlbach and Mu 2023) and can make especially personal or controversial perspectives more easily discussable. Jensen (2018) describes these functions as “interactional affordances” within so-

cial situations. Moreover, the premise that the mod students create is “just a game” repeatedly encouraged participants—without this explicitly being part of the assignment—to address deeply personal issues with their proposed changes, such as anxieties stemming from social media use, loneliness, or exhaustion due to constantly inflated expectations.

To conclude, we’d like to briefly address several recurring patterns from this case study that hint at differences in perspectives participants explored with their own creations. For example, several students, across multiple cohorts, suggested implementing asymmetrical starting conditions into the game to critique the “rags-to-riches” stories that the original game would often produce. Many of our students are sensitized to systemic inequalities based on criteria such as race, class, or gender, but especially recent cohorts repeatedly draw on personal experience as part of the so-called “bad luck generation,”¹¹ a term used by and for those who studied between 2015 and 2022, primarily under the conditions of the COVID-19 pandemic.

Another common high-level change was trying to implement positive player interactions (in which player actions automatically or selectively benefit their opponents) or even to turn the originally competitive game into a cooperative game. Most students agree that—at least in contemporary postindustrial societies that afford safety and acceptable baseline living standards to most of their members—interaction with others would be considered necessary for a “good life” rather than a threat.

Participants also repeatedly attempted to empathize with the imagined historical perspective, for example how the game may have been experienced by families in the 19th century. This might be a particularly fruitful exercise in a course on the history of modernity or similar topics, but for our purpose it was paramount to acknowledge the incomparably different playing contexts, effectively recognizing the limitations of SPT and the historical situatedness of perspectives. Thus, the goal was not a naive re-enactment of historical play experience but enabling a self-reflective discussion on potential perspectives of 19th century players, for example based on the style and

contents of Milton Bradley’s original manual¹² or literature providing historical context (Whitehill 2015).

Finally, semanticizing the “empty” tiles in *TCGOL* gradually emerged as particularly productive for SPT. While commonly interpreted as symbolizing idleness, boredom, and serendipity in life, these tiles sparked two prevalent opposing perspectives: many participants appreciated them as “downtime” that is important particularly because it is (and should remain) not “productive,” while others hypothesized that they could provide a “bonus” (e.g. additional movement options) as boredom can allegedly spark creativity. The second interpretation proved overall less popular—occasionally being critiqued as a neoliberal appropriation of idleness—but both are equally important for the SPT process.

CASE STUDY: REPURPOSING D&D TO SHARE PERSPECTIVES BETWEEN LEARNER PERSONAS IN THE CLASSROOM

*D*ungeons & Dragons (*D&D*) (1974) is generally considered to be the first (and most likely the most famous) example of a tabletop role-playing game (TRPG) (White et al. 2018). In *D&D*, players perform the roles of characters in a fantasy world (usually including some sort of underground maze or dungeon) that is devised by a so-called game master (GM). As a collaborative game, players set out on an adventure in the company of other players (a “party”) with their characters ideally having some complementary abilities to overcome the challenges they will inevitably face. This adventure usually plays out over a number of different play sessions (typically taking up a few hours) which together make up a “campaign.”

At its core, the game includes storytelling mechanics (by both GM and the players), dice rolling (often during character creation and combat), and a leveling mechanic with characters increasing capabilities by earning experience points. However, the constituting elements of *D&D* are also difficult to pin down because the game has seen a large number of different editions over the years with their own player and GM guides, and players and GMs also operate with

some degree of freedom in devising the game's rules, characters, setting, and adventure. As such, *D&D* might be better viewed as a platform for creating games rather than a game itself. Or, as Lalone (2019) argues in taking this metaphor to the extreme, "D&D's system is its programming language, the GM is its processor, [...] the players and GM together work as its memory [...] [and] the campaign - or connected game sessions - are what we would refer to as software running on a platform." Approaching *D&D* as a platform turns it into useful scaffolding for our game design exercises.

In our second case study we thus engaged in the first phase of *D&D* and had students and teachers develop characters using a character sheet based on a classic *D&D* character sheet (see fig. 3). By creating and sharing characters in the classroom, we aimed to encourage social perspective taking across different "learner personas." Learner personas, as we understand them here, consist of written-out, fiction-infused representations of archetypal character roles that students and teachers (can) embody while "participating in the game of education" (Cole et al. 2020, 38). The persona concept is derived from user centred design, and has been used to encourage perspective taking with (possible future) clients/patients/product users to gain a more holistic view of the needs, wants, and attitudes of the intended audience so as to adjust the product or service accordingly (van Rooij 2012). In education, our hypothesis was that creating and sharing learner personas can thus potentially increase bilateral understanding of the different challenges that students and teachers face and expose different (mis)understandings of the socio-cultural rules that govern the classroom situation.

For this case study, we draw from the filled-out character sheets, observations, and student and staff reflections derived from a two hour-long design workshop in a first-year undergraduate course titled "Introduction to New Media and Digital Culture" that took place earlier this year. The course has a cohort of about 200 students and includes eight staff members. Particularly in the English-speaking classrooms (there is both an English and Dutch version of this course), the group is relatively heterogeneous, with students coming from all over the world, bringing in their own socio-cultural backgrounds and accom-

DUNGEONS & DRAGONS®

CHARACTER NAME

CLASS & LEVEL BACKGROUND PLAYER NAME

RACE ALIGNMENT EXPERIENCE POINTS

STRENGTH DEXTERITY CONSTITUTION INTELLIGENCE WISDOM CHARISMA

INSPIRATION

PROFICIENCY BONUS

ARMOR CLASS INITIATIVE SPEED

HIT POINT Maximum

CURRENT HIT POINTS

TEMPORARY HIT POINTS

Total HIT DICE

SUCCESSES FAILURES DEATH SAVED

SKILLS

ATTACKS & SPELLCASTING

EQUIPMENT

FEATURES & TRAITS

PERSONALITY TRAITS IDEALS BONDS FLAWS

OTHER PROFICIENCIES & LANGUAGES

PASSIVE WISDOM (PERCEPTION)

THX 5.0 © 2014 Wizards of the Coast LLC. Permission is granted to photocopy this document for personal use.

Figure 3: Selection of a 5th edition Dungeons & Dragons character sheet
(<https://dnd.wizards.com/resources/character-sheets>).

panying expectations about acceptable or appropriate classroom behaviors. That means that in this workshop, the subjects of the SPT process that we aimed to encourage were present in the same room.

The exercise consisted of two phases. First, students and staff were asked to download the character sheet (see the appendix of course materials below) and individually fill it out. They were encouraged to be creative in shaping their characters in terms of “race” (it could be an elf/dwarf/orc etc.) and “class” (it could be a fighter/wizard/bard etc.), but were also asked to make sure that the characters and their traits, however fictional, would still reflect the motivations, abilities (skills), and expectations of them as students or teachers. To assist them in this process, they could draw inspiration from a list of three archetypal learner personas: the warrior, who will “plunder” the course for its relevance to their own purposes; the scholar, who wants to go beyond just a good grade and really understand the material; and the wizard, who wants to be transformed by the experience to influence the present and change the future (see appendix for more details).

The introduction of this character creation exercise caused quite a stir in the different classrooms, with students becoming giggly and increasingly animated once they started to get a grasp of what was expected of them. As we noted above, shared laughter can function as a coping strategy to alleviate anxiety about unfamiliar or uncomfortable situations (such as being asked to align oneself with a warrior, scholar, or wizard, or being asked to share one’s personal background story in a classroom setting) (Werning and van Vught 2021). However, going by the murmur in the classroom, we suspect that in this case, the giggling also related to the joy of being able to create a humorous semi-fictional character for oneself and to test its validity with classmates. As such, the fantasy element in the character sheet had certain students (re)affirm their bonds, letting each other know they were in on the joke.

Furthermore, the character sheet, and particularly its third-person phrasing, encouraged a reflective stance. As one student noted, in relation to filling out the “objectives” section in the sheet: “it forced me to think: ‘what does this girl want?’” And another student noted that when thinking about her character’s strengths, she started writing out an idealized version of herself which not so much reflected her abilities at that point in time, but future abilities that she was aspir-

ing to attain. This, in turn, started to impact the objectives she set for her character in this class.

In the second phase, students and teachers were asked to come together to share and compare their created characters to see where backgrounds, objectives, abilities, and expectations aligned or diverged. Here, they could make use of a template for a rule book (see appendix) which cued them to translate objectives and expectations into a code of conduct or rule set for the classroom and articulate strategies to employ to “win the game of education.” It also allowed them to reflect on the complementary character abilities needed (in their “D&D party”) to increase their chances of educational success.

In this phase, we again witnessed the important role of what Fine (1983) has called the “fantasy frame” (in which students and teachers develop and perform the role of their characters), co-occurring with the “primary framework” of reality (in which students and teachers exist as human beings in the classroom). One student noted that this fantasy frame added a certain “lightness” and humour to the exercise which gave them more confidence to share information about the challenges they were facing and in turn increased curiosity about how the others had framed their personal stories as fantasy characters. Here, we noted that the sequentiality in which information is shared also made a great difference. For example, when teachers went first in sharing their personal stories and struggles (showing vulnerability), that set the stage for students to jump in and share theirs.

Also, the rule book functioned as an interesting evocative object (Turkle 2011) in that it allowed for a writing down of social expectations as seemingly dogmatic rules which consequently functioned as a trigger for discussing and reassessing those rules from other perspectives (cf. Buchholz 2019). In one notable occurrence, my (Jasper’s) additions to the rule book ignited an interesting discussion around the different cultural backgrounds of certain students and their admitted struggle to abide by these new rules. For example, when I provocatively expressed my expectation around active participation in the classroom in terms of rules for eye contact, a small

group of students of Asian descent expressed unease with this new rule (after notably avoiding eye contact). They pointed out that their cultural background had taught them to be respectful of and compliant with authority (like teachers), and that they feared that making eye contact could be perceived as rude and disrespectful. This, in turn, was met with signs of support from other students who also expressed unfamiliarity and unease with the way that the Dutch schooling system appeared to be commending the challenging and questioning of authority.

Harking back to the different stages of SPT identified by Gehlbach and Mu (2023), we argue that the *D&D* exercise shows promise on two levels. First of all, the character sheet offered students and teachers an opportunity to express their learner personas on the border between reality and fantasy, thereby lowering the threshold for sharing personal information in a classroom setting and increasing curiosity for how the others dealt with this creative exercise. As Gehlbach and Mu (2023) note, motivation for engaging in SPT can increase when perceivers share experiences with the subject, and this is exactly what the *D&D* exercise facilitates. By offering students and teachers a shared experience between “real rules and fictional worlds” (Juul 2005) motivation for SPT can increase while at the same time, the stakes for sharing can decrease.

Secondly, the rule book offers students and teachers motivation and strategies for gathering information about others in the classroom by asking everyone to translate their individual objectives and expectations into a shared set of rules. This forces a sharing and comparing of personal information and an identification of commonalities and differences. Here, students and teachers are encouraged to move away from the “primary frame” and the “frames of fantasy” (in the character creation phase) (Fine 1989) into what Schousboe (2013) terms the “sphere of staging.” In this sphere, the rules, roles, and themes for the game are (re)negotiated, which more clearly puts students and teachers in the position of game designers instead of players. As we argued elsewhere (Werning and van Vught 2021), the role of the designer is significantly different from the role of a player. Where players are encouraged to adopt a single (character’s) role and

further that agenda, game designers are required to consider different perspectives, strategies, and backgrounds embodied by different players and in turn create a balanced environment for all. As such, moving into the sphere of staging forces a concerted effort to take different perspectives if one wants the rule book to offer equal opportunities for all players.

In conclusion, this design exercise certainly shows significant potential in encouraging SPT and as such seems worthwhile refining, expanding on, and validating. While we'll discuss future research directions in the outlook section below, the exercise has already ignited two small modifications that we aim to test out in new design sessions shortly.

First of all, while the current exercise is aimed at SPT with the subject being present (in the classroom), a slight modification would allow it to be used for SPT with the subject being absent. In such a case, students would be asked to devise their own archetypes around a specific (polarizing) topic. However, since it is likely that students resort to stereotyping when creating such an archetype, the character sheet exercise would need to be followed up with another exercise (e.g., the use of cue cards) to expose biases and make sure the archetype sufficiently represents the subject.

Secondly, while the current exercise purposefully makes use of self-made character sheets to seek alignment between game and classroom experience, we also see value in resorting back to the original character sheets to more fully capitalize on *D&D* as a platform. Following Lalone (2019) this would mean making use of *D&D*'s "programming language" in terms of the fixed categories of "race," "class," and "abilities," and collectively exploring what these categories mean for the situation at hand. For example, what does it mean to have charisma in an educational setting and what does the numerical information required in such a category stand for? Such an exercise would then likely trigger a collective modification of the character sheet and foster a critical conversation on the mediatizing capabilities of the game.

OUTLOOK

Both formats/techniques outlined above have been developed and are being refined as ongoing practice-based education activities at Utrecht University. They are thought experiments, but, particularly in the first case study, playtesting a familiar game with other people's rules makes these perspectives partially experienceable. At the same time, they also harness the vast amount of latent game literacy, or familiarity with the source material and with game idioms more broadly, among our students as a shared language. Aimed at educators and curriculum designers, they will hopefully provide inspiration for teaching interventions addressing a broad spectrum of potential topics that require multi-perspectival dialogue, from the climate crisis to political radicalization to controversial emerging technologies such as AI.

Both formats are being fine-tuned and evaluated individually for now. However, since both are examples of discursive game design as a conceptual framework and make use of the proposed notation system, we see ample opportunities for combining both into a more comprehensive workshop that explores the interconnectedness of worldviews and identities. In such a longer session, all four phases of SPT could potentially be experienced in the full feedback loop that Gehlbach and Mu originally envisioned (2023, 284). Particularly in the final evaluation stage, both games would act as "reality checks" for each other and facilitate a productive discussion on the underlying assumptions of the prototypes and the concepts discussed. For example, playing *TCGOL* with a given character sheet raises productive questions: Should this particular character have different starting or winning conditions? What would a specific tile mean for them? But also, how do the different "life stories" from *TCGOL* reframe the static character sheet, should the sheet be updated while playing, and how would that reflect on the malleability of personas in response to different life experiences?

For this article, both practice-based case studies are presented as proof-of-concept for how DGD may facilitate perspective taking. This means that there are clear avenues for further research, particu-

larly (but not exclusively) with regard to more robust validation. For example, Dishon and Kafai propose a multimodal investigation of the design sessions focusing on three levels: field notes and video recordings, student reflections acquired through interviews and debriefings, and analyses of participants' games through recorded playtests and the "photographic documentation of prototypes" (2020, 5). In line with the aforementioned notation system, this would be useful to approach as a longitudinal study to identify changes across student cohorts.

Furthermore, both case studies currently focus on the process of SPT and the (relatively generic) concept of personas as well as the theme of the "good life" are mere means to that end. On that note, an important concretization would be to tailor both techniques, individually or in combination, to a more specific topic, such as perceptions of the climate crisis and ecological identities.

Finally, while empathy with other people's situations and worldviews appears universally desirable as a capacity among students, it is important to critically contextualize it in terms of Jade Davis' (2023, 2) notion of "empathy culture". According to Davis, empathy is increasingly expected and demonstrated but often understood very narrowly, for example as a "quick fix for a broken culture" and as "a binary" trait someone either possesses or not (1). While traditionally it involves "taking on [more complex] mental states," in common parlance the concept nowadays refers primarily to "feeling what a[nother] person is feeling" (3), without necessarily understanding the causes of and preconditions for these feelings. Thus, learning outcomes of these interventions should be critically assessed to prevent perpetuating "empathy 'scripts' [that] can flatten someone's experience of suffering and emotions"¹³ and ensure that students appreciate the complexity of social perspectives and the people behind them.

APPENDIX: COURSE MATERIALS

Repurposing *The Checkered Game of Life* to Rethink and Renegotiate
Worldviews and Values

Annotated Sample Notation: The original *The Checkered Game of Life*

// Any text in a line after // should be handled as a comment and is not part of the actual game rules.

START₁ // the numbering suggests the possibility of different starting positions

- ALL: Receive player token and o POINTS // ALL refers to all participating players
- ALL: Put their token on the 'infancy' tile
- RANDOM: First player
- MAINLOOP: First player // this denotes the start of the loop called MAINLOOP (which should always only exist once in every mod but can include multiple sub-loops)

MAINLOOP: Player // or ALL in the case of simultaneous play

- CHECK: last remaining player? $\Rightarrow$ WIN₁ // Checks are conditional statements (like IF...THEN) but for this purpose need not be completely formalized
- Move token according to RULES: movement // RULES functions like a subroutine, i.e. while executing the loop the player briefly switches to the RULES segment with the label "movement"
- Follow TILE instructions, receive POINTS if applicable // keywords like TILE and POINTS are highlighted to enhance readability and e.g. consider alternative game components or metrics (like e.g. a HAPPINESS metric)
- CHECK: on same TILE as OTHER player? $\Rightarrow$ OTHER: player sent to 'jail' TILE
- CHECK: on 'happy old age' TILE AND POINTS ≥ 100 ? $\Rightarrow$ WIN₁
// conditions can be linked with AND, OR etc.

- CHECK: on TILE ‘suicide’? $\Rightarrow$ LOSE₁: Player // the number behind the LOSE keyword indicates that there may eventually be multiple loss scenarios; the Player after the colon indicates that only the current player loses (as opposed e.g. to ALL); formalization like this is of course not necessary but helps think specifically about elements and event sequences in a game modification
- MAINLOOP: Next player clockwise // the MAINLOOP restarts but with another player as active Player

RULES:’movement

- Roll 1 D6 OR teetotum // D6 refers to a six-sided die as opposed e.g. to a D10 or D20
 - =1: move 1 tile vertically // this syntax is structured like a switch/case statement in scripting languages
 - =2: move 1 tile horizontally
 - =3: move 1 tile diagonally
 - =4: move 1-2 tiles vertically
 - =5: move 1-2 tiles horizontally
 - =6: move 1-2 tiles diagonally

WIN₁

- Current Player wins the game

LOSE₁

- Current Player removed from the game

Printer-friendly version of TCGOL game board

Individual tiles to create a modular board

The tiles can be printed but are specifically intended for use in a software application like *Tabletop Playground* or *Tabletop Simulator* to easily prototype and playtest various modular boards. The board and tiles can be downloaded at: <https://www.dropbox.com/scl/fo/sxqba3zxysxxiq8qplllx/AGinWITKA1r4AIt-spU5LNYw?rlkey=bqicvhwazk2ig3yeszixp3ky&dl=0>.

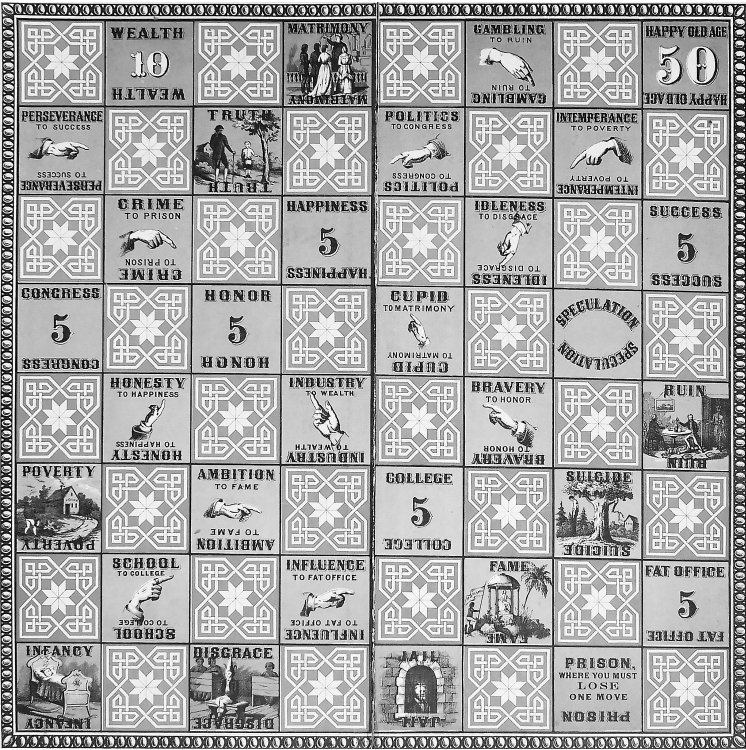


Image taken from: https://americanhistory.si.edu/collections/nmah_321475.

Repurposing D&D to share perspectives between learner personas in the classroom

SLAYING THE NEW MEDIA DRAGON – CHARACTER SHEET	
Profile pic You may draw an image of your character here 	Background Where does your character come from (geographically, socially, culturally)? How did your character arrive at this point (this education journey/game)? ...
(Nick)name of your character ...	Strengths What is your character good at in relationship to the objectives? Consider academic skills, communication skills, interpersonal skills, writing skills, professional skills, learning preferences etc.). How will these strengths help your character achieve their goals? ...
Motivations What is your character's motivation/incentive for embarking on this journey? ...	Areas for improvement In what areas could your character improve in relationship to the objectives? Consider academic skills, communication skills, interpersonal skills, writing skills, professional skills, learning preferences etc.). How could these areas of improvement hamper your character's journey? ...
Objectives What is your character's objective in this journey (long term and short term)? Take inspiration from the archetypes but elaborate here. ...	Social Expectations How do you expect your character to be interacting with your fellow student-characters? Consider verbal communication, non-verbal communication, online communication, attitude, power dynamics etc. How do you expect your character to be interacting with your teacher-character? How/where do these expectations match with your character's strengths and areas for improvement? How/where do these expectations diverge? ...
Cultural Expectations What do you expect to be dominant implicit or explicit values in this classroom-journey? Consider things like cultural values and identity norms, but also norms around work ethic and compliance with rules. How/where do these expectations match with your character's value system? How/where do these expectations diverge? ...	



SLAYING THE NEW MEDIA DRAGON – RULE BOOK



Objectives

How/where do your characters' objectives overlap? How/where do your characters' objectives diverge? What do you now understand to be the general objectives of this journey? How does this general objective match with your characters' personal objectives? How does this general objective diverge from your characters' personal objectives?

...

Rules

How/where do your characters' social and cultural expectations overlap? How/where do your characters' social and cultural expectations diverge? What do you now understand to be the general rule system (expected behaviour and values) of this classroom game/journey? How does Rule system match with your characters' expectations? How does this rule system diverge from your characters' expectations?

...

Strategies

Considering your character's strengths, areas of improvement, sociocultural background/expectations, what strategies will your character employ individually to traverse this rule system? Do you think your character has equal opportunities for achieving the objectives of this classroom game/journey as other student-characters? If so, why? If not, why not? Considering that this is a collaborative game/journey, what complementary student-characters would help you to achieve the objectives of this classroom game/journey?

...

Rule change

Considering your characters' individual opportunities for achieving the objectives of this classroom game, can you think of a rule change that could increase your chances? Considering your party's (group's) opportunities for achieving the objectives of this classroom game, can you think of a rule change that could increase your chances?

...





character sheets created by the authors

Choose your Identity	The Warrior	The Scholar	The Wizard
Not all of you want or need to get the same thing out of this experience.	You're going to pass the course by taking what you need to succeed.	You want more than a good grade, you want to really understand the material.	You want to be transformed by this experience and gain the power to influence the present and change the future.
How will you play the learning game?	Warriors rely on the assigned readings and instructor's information to complete the course requirements. They will plunder the course for its relevance to their own purposes and not worry too much about the details.	Scholars pay attention to the details and complete the course purposefully and critically. Scholars are ready to participate in discussion and debate.	Wizards look beyond the structure of the course to find relevance and connections. They are concerned with why all of this is important to humans in general. Wizards are passionate and curious, looking for new perspectives.
	Warriors show up for their team, follow instructions, complete assignments, and meet expectations.	The scholar makes connections between different elements in the course and contributes to our collective understanding.	The wizard brings back artifacts from their adventures outside of class to delight the rest of us.
	The warrior doesn't need to go too meta to get the job done.	The scholar is curious about "meta-ness".	The wizard goes meta... all the way.

persona sheet created by our colleague, Dr. Deborah Cole for her course: *Language & Identity: Researching & Writing Who We Are*

WORKS CITED

- Allegue, L., Jones, S., Kershaw, B., and Piccini, A., editors. *Practice-as-Research in Performance and Screen*. Palgrave Macmillan, 2009.
- Bader, C., Kolb, D., Weaver, J. C., Sharma, S., Hosny, A., Costa, J., and Oxman, N. "Making Data Matter: Voxel Printing for the Digital Fabrication of Data across Scales and Domains." *Science Advances*, vol. 4, no. 5, 2018, pp. 1-12.
- Bayrak, A. T. "Games as a Catalyst for Design for Social Innovation: Unlocking Legendary Tools." *The Design Journal*, vol. 22, no. 1, 2019, pp. 1409-1422.
- Biesta, G. "Risking Ourselves in Education: Qualification, Socialization, and Subjectification Revisited." *Educational Theory*, vol. 70, no. 1, 2020, pp. 89-104.
- Bogost, I., Mateas, M., Murray, J., and Nitsche, M. "Asking What Is Possible: The Georgia Tech Approach to Games Research and Education." *International Digital Media and Arts Association Journal*, vol. 2, no. 1, 2005, pp. 59-68.
- Boyle, M. *Research in Action: A Guide to Best Practice in Participatory Action Research*. Australia Department of Families, Housing, Community Services, and Indigenous Affairs, 2012.
- Bums, T. A. "The Game of Life: Idealism, Reality and Fantasy in the Nineteenth- and Twentieth-Century Versions of a Milton Bradley Game." *Canadian Review of American Studies*, vol. 9, no. 1, 1978, pp. 50-83.
- Cizek, K., and Uricchio, W. *Collective Wisdom: Co-Creating Media for Equity and Justice*. The MIT Press, 2022.
- Colby, R., and Shultz Colby, R. "Game Design Documentation: Four Perspectives from Independent Game Studios." *Communication Design Quarterly Review*, vol. 7, no. 3, 2019, pp. 5-15.
- Cole, D., Werning, S., and Maragliano, A. "Playable Personas: Using Games and Play to Expand the Repertoire of Learner Personas." *Persona Studies*, vol. 6, no. 2, 2021, pp. 38-53. <https://ojs.deakin.edu.au/index.php/ps/article/view/965/1032>.
- Davis, Jade E. *The Other Side of Empathy*. Duke University Press, 2023.

- de Witt, A., de Boer, J., Hedlund, N., and Osseweijer, P. "A New Tool to Map the Major Worldviews in the Netherlands and USA, and Explore How They Relate to Climate Change." *Environmental Science & Policy*, vol. 63, 2016, pp. 101-112, <https://doi.org/10.1016/j.envsci.2016.05.012>.
- Dishon, G., and Kafai, Y. B. "Making More of Games: Cultivating Perspective-Taking through Game Design." *Computers & Education*, vol. 148, 2020, <https://doi.org/10.1016/j.compedu.2020.103810>.
- Ender, M. G. "Experiencing Social Class Inequality: Modified Monopoly." *Teaching and Learning the West Point Way*, edited by Ender, M. G., Kimball, R. A., Sondheimer, R. M., and Bruhl, J. C., Routledge, 2021, pp. 134-139.
- Ellis, S., Blades, H., and Waelde, C., editors. *A World of Muscle, Bone & Organs: Research and Scholarship in Dance*. C-DaRE at Coventry University, 2018.
- Fine, G. A. *Shared Fantasy: Role-Playing Games as Social Worlds*. The University of Chicago Press, 1983.
- Gadamer, H. G. *Truth and Method*. Sheed & Ward, 1989.
- Gehlbach, H., and Mu, N. "How We Understand Others: A Theory of How Social Perspective Taking Unfolds." *Review of General Psychology*, vol. 27, no. 3, 2023, pp. 282-302.
- Glas, R., van Vught, J., and Werning, S. "'Thinking Through' Games in the Classroom: Using Discursive Game Design to Play and Engage with Historical Datasets." *Transactions of the Digital Games Research Association (ToDIGRA)*, vol. 5, no. 1, 2021, pp. 145-169.
- Jensen, Thomas Wiben. "Humor as Interactional Affordances: An Ecological Perspective on Humor in Social Interaction." *Psychology of Language and Communication*, vol. 22, no. 1, 2018, pp. 238-259.
- Johnson, D. W. "Cooperativeness and Social Perspective Taking." *Journal of Personality and Social Psychology*, vol. 31, no. 2, 1975, pp. 241-244, <https://doi.org/10.1037/h0076285>.
- Junior, R., and Silva, F. "Redefining the MDA Framework—The Pursuit of a Game Design Ontology." *Information*, vol. 12, no. 10, 2021, p. 395, <https://doi.org/10.3390/info12100395>.

- Kafai, Y., and Burke, Q. "Constructionist Gaming: Understanding the Benefits of Making Games for Learning." *Educational Psychologist*, vol. 50, no. 4, 2015, pp. 313-334.
- Ke, F. "An Implementation of Design-Based Learning through Creating Educational Computer Games: A Case Study on Mathematics Learning during Design and Computing." *Computers & Education*, vol. 73, no. 1, 2014, pp. 26-39.
- Kleinfeld, R. *Polarization, Democracy, and Political Violence in the United States: What the Research Says*. Carnegie Endowment for International Peace, 2023, https://carnegie-production-assets.s3.amazonaws.com/static/files/Kleinfeld_Polarization_final_3.pdf.
- Koltko-Rivera, M. E. "The Psychology of Worldviews." *Review of General Psychology*, vol. 8, no. 1, 2004, pp. 3-58, <https://doi.org/10.1037/1089-2680.8.1.3>.
- Kultima, A., and Laiti, O. "Sami Game Jam: Learning, Exploring, Reflecting, and Sharing Indigenous Culture through Game Jamming." *Proceedings of DiGRA 2019*, 2019, pp. 1-18.
- Lalone, N. "A Tale of Dungeons & Dragons and the Origins of the Game Platform." *Analog Game Studies*, vol. 6, no. 3, 2019.
- Loring-Albright, G. "The First Nations of Catan: Practices in Critical Modification." *Analog Game Studies*, vol. 2, no. 7, 2015.
- Mattlin, M. "Adapting the DIPLOMACY Board Game Concept for 21st Century International Relations Teaching." *Simulation and Gaming*, vol. 49, no. 6, 2018, pp. 735-750, <https://doi.org/10.1177/1046878118788905>.
- Midgelow, V. L., Bacon, J., Kramer, P., and Hilton, R., editors. *Researching (in/as) Motion: A Resource Collection*. Theatre Academy of the University of the Arts Helsinki, 2019, <https://nivel.teak.fi/adie/>.
- Mouffe, C. *The Democratic Paradox*. Verso Books, 2005.
- Muratet, M., Carron, T., and Yessad, A. "How to Assist Designers to Model Learning Games with Petri Nets?" *Proceedings of the 17th International Conference on the Foundations of Digital Games*, vol. 15, 2022, pp. 1-10, <https://doi.org/10.1145/3555858.3555937>.
- Nelson, R. "Practice-as-Research and the Problem of Knowledge." *Performance Research*, vol. 11, no. 4, 2006, pp. 105-116.

- Nelson, R., editor. *Practice as Research in the Arts: Principles, Protocols, Pedagogies, Resistances*. Palgrave Macmillan, 2013.
- Odendaal, A., and Zavala Barreda, K. "Black Boxes out of Cardboard: Algorithmic Literacy through Critical Board Game Design." *Analog Game Studies*, vol. 5, no. 4, 2018.
- Odendaal, A., and Zavala Barreda, K. "Imagining Inclusive Technological Futures through Participatory Board Game Design." *The Design Journal*, vol. 27, no. 2, 2024, pp. 291-311.
- Parra, S. L., Bakker, C., and van Liere, L. "Practicing Democracy in the Playground: Turning Political Conflict into Educational Friction." *Journal of Curriculum Studies*, vol. 53, no. 1, 2021, pp. 32-46.
- Petersen, K., and Gencel, C. "Worldviews, Research Methods, and Their Relationship to Validity in Empirical Software Engineering Research." *Proceedings of the 23rd International Workshop on Software Measurement and the 8th International Conference on Software Process and Product Measurement*, 2013, pp. 81-89.
- Roms, H. "The Practice Turn: Performance and the British Academy." *Contesting Performance: Global Sites of Research*, edited by McKenzie, J., Roms, H., and Wee, C. J. W.-L., Palgrave Macmillan, 2010, pp. 51-70.
- Salter, A., and Moulthrop, S. *Twining: Critical and Creative Approaches to Hypertext Narratives*. Amherst College Press, 2021.
- Schousboe, I. "The Structure of Fantasy Play and Its Implications for Good and Evil Games." *Children's Play and Development: Cultural-Historical Perspectives*, edited by Schousboe, I. and Winther-Lindqvist, D., Springer, 2013, pp. 13-27.
- Schrier, K., Ohu, E., Bodunde, I., Alugo, M., Emami, C., and Babatunde, A. "Piloting a Game Jam in Nigeria to Support Empathy and Compassion." *Proceedings of the 6th Annual International Conference on Game Jams, Hackathons, and Game Creation Events*, 2021, pp. 60-63.
- Sicart, M. "Loops and Metagames: Understanding Game Design Structures." *Proceedings of the 10th International Conference on the Foundations of Digital Games (FDG 2015)*, 2015, http://www.fdg2015.org/papers/fdg2015_paper_22.pdf.
- Skinner, S., and van Niekerk, J. "Incorporating Pedagogical Principles into Formal Game Mechanic Design Using the Machinations Framework."

- Proceedings of the European Conference on Games Based Learning*, 2017, pp. 593-599.
- Smith, P. A., and Bowers, C. "Improving Social Skills through Game Jam Participation." *Proceedings of the International Conference on Game Jams, Hackathons, and Game Creation Events (GJH&GC '16)*, 2016, pp. 8-14.
- Smith, H., and Dean, R. T., editors. *Practice-Led Research, Research-Led Practice in the Creative Arts*. Edinburgh University Press, 2009.
- Tharp, B. M., and Tharp, S. M. *Discursive Design: Critical, Speculative, and Alternative Things*. MIT Press, 2018.
- Turkle, S. "Seeing through Computers." *American Prospect*, vol. 8, no. 31, 1997, pp. 76-82.
- Turkle, S., ed. *Evocative Objects: Things We Think With*. The MIT Press, 2011.
- van Rooij, S. W. "Research-Based Personas: Teaching Empathy in Professional Education." *The Journal of Effective Teaching*, vol. 12, no. 3, 2012, pp. 77-86.
- Waldinger, R., and Schulz, M. *The Good Life: Lessons from the World's Longest Study on Happiness*. Random House, 2023.
- Werner, L., Campe, S., and Denner, J. "Children Learning Computer Science Concepts via Alice Game-Programming." *Proceedings of the 43rd ACM Technical Symposium on Computer Science Education*, 2012, pp. 427-432.
- Werning, S. "Modding as a Strategy to (De)Legitimize Representations of Religion in the Civilization Game Franchise: A Diachronic Proceduralist Reading." *Discourses of (De)Legitimization*, edited by Ross, A., and Rivers, D. J., Routledge, 2018, pp. 307-325.
- Werning, S. "Making Data Playable: A Game Co-Creation Method to Promote Creative Data Literacy." *Journal of Media Literacy Education*, vol. 12, no. 3, 2020, pp. 88-101.
- Werning, S., and van Vught, J. "Taking Playful Scholarship Seriously: Discursive Game Design as a Means of Tackling Intractable Controversies." *Eludamos: Journal for Computer Game Culture*, vol. 12, no. 1, 2021, pp. 101-121.
- White, W. J., Arjoranta, J., Hitchens, M., Peterson, J., Torner, E., and Walton, J. "Tabletop Role-Playing Games." *Role-Playing Game Studies: Transme-*

dia Foundations, edited by Deterding, S., and Zagal, J., Routledge, 2019, pp. 63-86.

Whitehill, B. "Games of America in the Nineteenth Century." *Board Game Studies Journal*, vol. 9, no. 1, 2015, pp. 65-87.

Zaidan, T., Zaidan, D., and Góes, L. F. W. "Game Mechanics Design: Applying Machinations to Eliosi's Hunt." *XV Brazilian Symposium on Computer Games and Digital Entertainment*, 2016, pp. 313-321.

ONLINE SOURCES

<https://lostgarden.com/2006/01/16/creating-a-system-of-game-play-note-tion/comment-page-1/> or <https://www.gamedeveloper.com/design/the-chemistry-of-game-design>

IMAGE NOTES

Figure 1: The core gameplay loop for a player of TCGOL as a flowchart in Canva. [Image created by the authors].

Figure 2: The game board and original box cover of TCGOL. Image taken from: https://americanhistory.si.edu/collections/nmah_321475.

Figure 3: Selection of a 5th edition Dungeons & Dragons character sheet. Image taken from: <https://dnd.wizards.com/resources/character-sheets>.

NOTES

1. While Gehlbach and Mu (2023) consistently use the term "target" when referring to the subject of SPT, we opt instead for the term "subject" as a more personalized variant (thanks to the anonymous reviewer for this suggestion).↩
2. We are in the midst of a full revision of our programme which also offers unique opportunities for a more structural embedding of research-creation in our curriculum.↩
3. We focus specifically on two opportunities we see for media and culture students but acknowledge there are other (more general) opportunities for embedding research creation in the classroom as well. For example, it is often argued that research-creation has the potential to acknowledge different types of knowledge (embodied, situated,

indigenous), thereby decentering existing paradigms (Nelson 2006) and possibly making the classroom more diverse and inclusive. Furthermore, embedding research-creation in the classroom also bridges the gap between research and the vocational (increasing professional skills) and theory and the real (forcing a confrontation of ethical dilemmas and real world problems).↵

4. See <https://golbooamani.com/Unsettling-Settlers-Intervention-Game> and <https://thesocialjusticegame.org/> respectively for further information on the two game projects.↵
5. See e.g. <https://www.gamedeveloper.com/design/the-chemistry-of-game-design>, <https://sgruenwo.web.th-koeln.de/download/a-new-methodology-for-spatiotemporal-game-design/> and <https://svn.sable.mcgill.ca/sable/courses/COMP763/oldpapers/elad-hari-02-object-TH.pdf> respectively.↵
6. For an example of distinctions between different temporal scale levels, from minute-to-minute to day-to-day, see e.g. <https://gamedesign-skills.com/game-design/core-loops-in-gameplay/#core-gameplay-loop-examples>.↵
7. See <https://vue.tufts.edu/> and <https://www.youtube.com/watch?v=xaLUNnl8roY> respectively.↵
8. See e.g. https://manual.gamemaker.io/monthly/en/GameMaker_Language/GML_Overview/Instance_Keywords.htm.↵
9. See <https://gist.github.com/discover>.↵
10. See e.g. https://www.researchgate.net/publication/368575708_Thinking_Monetization_into_the_Loop_On_the_Production_Context_of_Free-to-play_Games.↵
11. See e.g. <https://depechgeneratie.nl/> (in Dutch).↵
12. The document is available via the Hasbro website at <https://www.hasbro.com/common/documents/5b96f7161d3711ddbdo800200c9a66/858C69C319B9F3691003C63AB0E8078A.pdf>.↵
13. See <https://www.psychologytoday.com/us/blog/our-devices-ourselves/202312/the-hidden-danger-of-empathy-culture>.↵