27.

Culture-narration games

a definition and pilot study

Paul Gestwicki (Ball State University), Kaley Rittichier (Ball State University), & Austin DeArmond (Ball State University)

Abstract

We are inspired by the educational potential of the board game *Tales of the Arabian Nights*, a popular game based on the eponymous folk tale. Considering this game and others like it, we identify the characteristics that define a genre of *culture-narration games*, which we consider to have untapped potential for educational and transformative games. We describe a design experiment through which a multidisciplinary team followed an iterative and incremental process, in collaboration with a community partner, to investigate the potential of this genre. The result is a game that uses a theme of monsters from around the world to teach cultural empathy. This pilot project reveals both the promise and several complications with the genre, which lead to recommendations for future work.

Introduction

Tales of the Arabian Nights (Goldberg, 2009) is a tabletop board game based on the eponymous folk tale. It was originally published in 1985 (Goldberg, 1985), and it was re-released with many revisions in 2009. It is popular among board game hobbyists: on Board Game Geek, it has a rank of 239 (thematic rank 75), and Shut Up & Sit Down rank it as the ninth best game of all time (Shut Up & Sit Down, 2015). In this game, players control a character within a mythical Arabian setting, exploring the known world to accumulate Story and Destiny points. The winner is the player who is able to meet their Story and Destiny point goal while having a successful encounter in Baghdad—the City of Peace.

An intriguing property of *Tales of the Arabian Nights* (hereafter, *TotAN*) is that it eschews the conventional wisdom for game design, that player immersion is dependent upon agency. In *TotAN*, players choose a destination without any foreknowledge about what might be encountered there. They are told the name of the encounter—such as angry merchant, powerful prince, or elephant's graveyard—and based only on this information, they must choose a reaction from a set of options; for example, table *A* permits a choice of grovel, aid, rob, avoid, converse, attack, court, abduct, or honor. Another player then reads a corresponding entry from the *Book of Tales*—a 300-page tome containing~2600 numbered entries. Most entries provide introductory text followed by paragraphs tagged with skills that the active player may choose to use, but the choice is made without any knowledge of potential consequences. The reader then narrates the conclusion of the encounter and informs the player of their rewards, which might include gaining Story or Destiny points, learning new skills, finding treasures, or gaining status cards that modify players' options in future encounters. *TotAN*

then is hardly a game of skill, where the player with the best tactics wins the game: viewed through this conventional lens, the game is arbitrary. However, from its design emerges a fanciful gameplay experience. Although it is a competitive board game, it is not played to win, but rather for the enjoyment of emerging narrative, similar to tabletop roleplaying games (Grouling Cover, 2010) or story games (Duncan et al., 2015).

This property of *TotAN* reflects several characteristics of its source material—a book that "changed the world on a scale unrivalled by any other literary text" (Makdisi and Nussbaum, 2008, p.1). Like the original stories, *TotAN* is a collection of shorter stories that are sometimes linked together and sometimes not. The characters in the folk tales are often victims of fate with very little agency over their own encounters. The games rules follow cultural norms expressed in the folk tales: you cannot win while sex-changed or on pilgrimage, and both marriage and children are great blessings—unless you have an ugly baby, which is shameful. Baghdad is the most important city in the world, where your adventure starts and ends. Furthermore, many stories in *TotAN* come directly from the tales, such as the Sindbad's escape from the valley of diamonds or Aladdin's entrapment in a magic cave.

Playing *TotAN* inspired members of our team to read translations of the original tales, particularly the youth-friendly translation by (Philip, 1994), which revealed to us the cleverness of the design and its elegant dovetailing with the source material. Indeed, although the game was not explicitly designed as a learning game, we find it exhibits many of the learning game design principles established by Klopfer et al. (2009). Furthermore, in reading the texts, we recognized that we had already learned elements of the stories and the culture through playing the game, although not always consciously or explicitly. This inspired the following analysis, in which we tease apart the various elements of *TotAN*, considering them from both game design and learning design points of view, and then share the results of a pilot project to create a technology-enhanced game within the same genre.

Defining the Genre

We propose that *TotAN* is one of very few published games comprising a genre of *culture-narration games*. This follows the definition for "genre" given by Arsenault (2009)—that it is "the codified usage of particular mechanics and game design patterns to express a range of intended play-experiences." We define *culture-narration games*, then, as having the following characteristics:

1. *Take place in a believable, consistent setting.* Although the world of *TotAN* may be unfamiliar to the player, everything in it is representative of the world described in the original folk tale. This includes the contradictions that add depth and nuance, such as the inconsistent treatment of outsiders that emerged from the complex historical roots of the folk tales themselves (Matar, 2008).

2. *Use narrative as a primary feedback mechanism.* In *TotAN* the player's reaction and skill choice yields two forms of feedback: the narrative description followed by the changes to the game state. The narrative is primary—temporally, visually, and aesthetically.

3. *Have measurable goals.* There is a winning condition as part of the social contract of play, following colloquially-accepted standards for board games. The "game" is not simply constrained cooperative storytelling or a role-playing experience without formal end conditions.

4. *Incorporate endogenously-meaningful ambiguous decisions.* Following Burgun (2012), the

decision that one makes in the game are meaningful even though they are made without complete knowledge of the game state. For example, a player makes the choice of reaction in *TotAN* in hopes that it leads toward the skills that they have, such as choosing "Fight" while in possession of the "Weapon Use" skill, even though one does not know whether or not this skill will have relevance in the resulting entry from the *Book of Tales*.

5. *Reward players for decisions that reflects cultural understanding*. The knowledge that a player uses in the game is not just knowledge of in-game systems. For example, it is not by memorizing the *Book of Tales* that leads a player to predict that fighting a Powerful Ifrit without the Weapon Use skill will not end well. Rather, this prediction draws upon a cultural understanding of power, spirits, violence, and much more. The game rewards player decisions without resorting to binary "right" and "wrong" ("moral/immoral", "light side/dark side", "paragon/renegade") choices. There remain unexpected twists: perhaps fighting the Powerful Ifrit without combat skills makes him respect you and grant a boon. While the world remains consistent, it also has the potential for surprising results.

Two notable formal elements from *TotAN* are intentionally excluded from the genre definition above. First among these is the oration between players of each others' stories. While we agree that this is a critical element of *TotAN*—and that it dovetails performatively with Scheherazade's performances in the source material—it is not clear that this is characteristic to the genre. Anecdotal evidence shows that players with low reading skills can ruin the play experience for other players, while those players could have read their own stories, aloud or not. Similarly, *TotAN* permits a single-player experience which, while having a different aesthetic, still seems to produce the same general outcomes we described above.

The other formal element excluded from the genre definition is the use of an explicit map. The map is an important tangible aspect of *TotAN*, in particular with its representation of Baghdad as the largest, most important city in the world. However, we also note that virtual spaces can be represented without such an explicit map, such as in text adventures, the MUD family of games, or choose-your-own-adventure books, both of which use discrete spaces without giving them visual manifestation.

To establish these as characteristics of a genre and not just one game, we consider another game that possesses them: *Agents of SMERSH* (Maxwell, 2012). *SMERSH* is a cooperative game set in the Cold War, with players as covert agents trying to stop the enigmatic Dr. Lobo—a mad scientist bent on world domination. Players move across the world collecting resources and battling henchmen. While the stories are inspired by spy movies and novels, the game mechanics are clearly derived from *TotAN*: flip a card to read an encounter title, choose a reaction from a table, hear an introduction, and then get different results based on skills. Although *SMERSH* uses dice for encounter resolution, the feedback is still primarily narrative, as illustrated with sample encounters in Figure 1.

For contrast, consider *Above and Below* (Laukat, 2015), a worker-management game of city-building. Underground exploration includes player narration from an encounter book, which at first glance may appear to categorize it as a culture-narration game. However, in *Above and Below*, reaction choices are thin wrappers around probabilistic risk: an option is essentially a gamble on being able to roll better results on the dice, with higher numbers always having better results. The feedback is primarily in terms of formal rewards, with few encounters providing any narrative feedback, as illustrated in the representative encounter of Figure 1. Hence, although *Above and Below* includes an encounter book that players read to each other, it does not satisfy the characteristics of the culture-narration game genre.

Cultural Empathy

TotAN uses cultural understanding, not only on a small scale as a way to reward players, but also as a learning outcome of the game. In order for the game to reward players for their cultural understanding, cultures must be presented such that they can be understood by the player. In other words, the game needs to foster a sense of *cultural empathy*, defining "empathy" as the "state of mind in which someone shares the feelings or outlook of another, sometimes prompted by imaginative exercises such as 'stepping into someone's shoes'" (Honderich, 2005, p.242). Therefore, cultural empathy, loosely formed, is sharing the feelings or outlooks of individuals from different cultures.

Cultural empathy is distinct from *cultural literacy*, which is the capability an individual has to participate in another culture based on their acquired information of the culture (Hirsch, 1983, p. 165). Being culturally literate means having the ability to participate in another culture that you are "dropped into," similar to how being literate is having the ability to understand or write a given work of text. *TotAN* focuses on a certain level of literacy of the given culture. Players are rewarded for their cultural understanding and their ability to "perform" in the given culture because of the information they have—a form of what Travis (2011) calls *practomime*. This is demonstrated in the example above, understanding the cultural views of marriage and sex-change have an important role in the game. However, cultural empathy makes understanding the main point, not performance. *TotAN* relies on an understanding of cultural values as opposed to just focusing on some of their values consequential norms. Therefore, though *TotAN* expects some sense of cultural literacy, it focuses more on cultural empathy. When a player walks away from the game they would not have gained the ability to participate in a Middle Eastern culture, although they will have gained some understanding of that culture. Hence, from a learning game design perspective, cultural empathy is a means to the end of cultural literacy. However, outside of the game, focusing on cultural literacy within a semi-fictional world is the means for cultivating cultural empathy.

Context and Theme

In order to explore the potentials within this genre, we formed a team to conduct a design experiment and pilot study. The team adopted a constructionist perspective (Papert & Harel, 2001), that our understanding of the genre would be improved by engaging with design, development, and evaluation—building prototypes as a way to understand them. We formed a partnership with Connection Corner, a non-lending branch of Muncie Public Library (Muncie, Indiana, USA) that provides community, training, and technology services in a low socioeconomic area of our city. Many youth patrons of the library are 4rd-6th grade "latchkey kids" who see the library as an after-school destination to visit with friends, participate in programs, and access technology.

Conversations with program coordinators about culture-narration games revealed that despite other differences, the youth patrons shared a fascination with monsters, horror, and the macabre. This answer in some ways seemed unsatisfactory: horror and empathy—cultural or otherwise—do not seem to be a good match. Indeed, the enjoyment of horror can appear to be no more than the enjoyment of antithetical dehumanization of subjects. However, the love of horror and the monstrous can be seen throughout our culture, in all forms of media. Indeed, monsters have been a hook for narratives throughout history.

TotAN encounter #1965	SMERSH encounter #20.4.1
Many seaside villages have reported sightings and attacks from a large pirate fleet. There are far too many ships in the fleet to attack on your own, so you need to find a powerful prince who can stand up to the pirate captains. Use *Storytelling Skill* You present the plight of the villagers with such eloquence and style that every prince you address promises to aid in the defeat of these rampaging pirates. When you see the size of the fleet sent to destroy the renegades, you have no doubt in the eventual triumph of justice. [Gain 1 Destiny Point and Courtly Graces skill.]	You have uncovered evidence that UN Agent F9 also works for the CIA. You're not convinced that's necessarily a bad thing, but the Director is taking it very seriously. You must find out if he is a threat. You meet with F9 and act as if everything is perfectly normal, exchanging information about a case you are working together. When he leaves, you follow him in your Ferrari. *Successfully pass Spycraft test using Driving skill* He is highly experienced at spotting tails, but you are equally experienced in avoiding being spotted. You follow him to a hotel where he meets with a Soviet diplomat. Never mind the CIA: it seems he's working for the KGB. [Improve any two skills.]
Above and Below encounter #62	*Traveler's Notebook* encounter
You follow a square tunnel, the walls smooth and masterfully cut. Before long you reach a tall chamber; in the center sits a great crystal, floating in mid-air. A dim, violet glow emanates from it and as you approach a voice fills the air. "I am the crystal of oracles. If you can prove your worth, I will give you knowledge." Do you continue speaking to the crystal or explore some of the connecting passages? *Explore the passages*: 3 successes: gain two coins 5 successes: gain a coin, a fish, and a mushroom	As you're sitting on the edge of a river, you see a large turtle swimming towards you. When it gets close it launches from the water to reveal it's not a turtle, but a kappa! *Use Logic skill* Remembering Japanese manners, you give the kappa a greeting bow. It returns your bow, emptying the water-filled dip on its head. It loses its strength and crawls to the water. [Gain 1 Inspiration]

Figure 1. Sample encounters.

Cohen (1996) draws attention to "reading cultures through the monsters they engender" (p.3). He notes that the conclusions we come to about cultures, from monsters or otherwise, will be a combination of many fragments rather than a "smooth epistemological whole." A monster is brought about at a particular time and represents not only the fears prevalent in the culture but also the values, that lead to that fear (p. 4-12). Pinning that down is difficult. The monsters work more as a snapshot of the culture at a particular moment than a definition. This point is especially important for us to note when creating a game whose goal is to encourage children's efforts to see something from others' perspectives. However, Cohen's theory also helps us understand children's fascination with monsters, that "the same creatures who terrify and interdict can evoke potent escapist fantasies" (p.16).

Our team therefore chose monsters as a key dramatic element for our design experiments. They were not only enticing to our target audience—first observed by our community partner and later proven through play testing—but Cohen's theory also suggests that they provide an affordance for developing empathy.

Monsters represent various cultures' sameness, in base forms of fear, yet difference, in the ways that fear becomes specific and embodied. By engendering an understanding of both difference and sameness between cultures, they encourage individuals to try to see something from someone else's viewpoint.
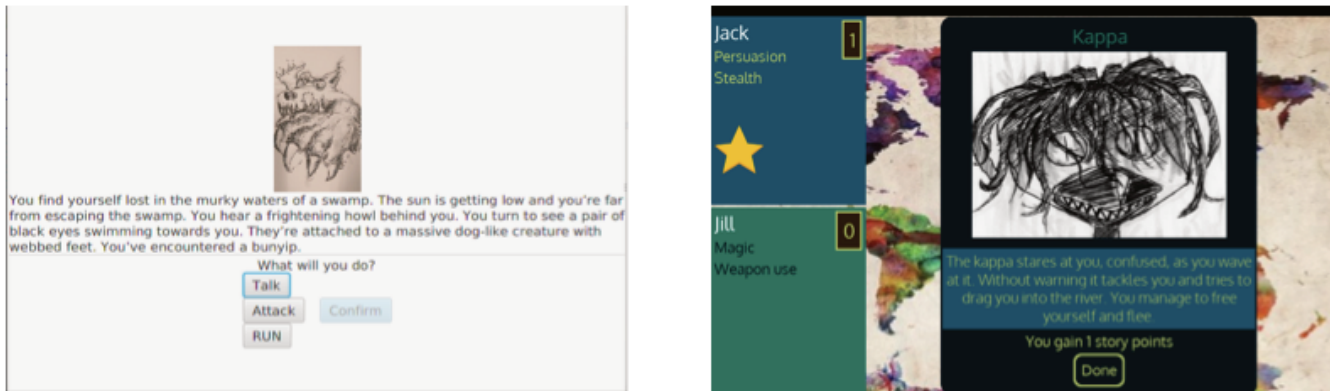

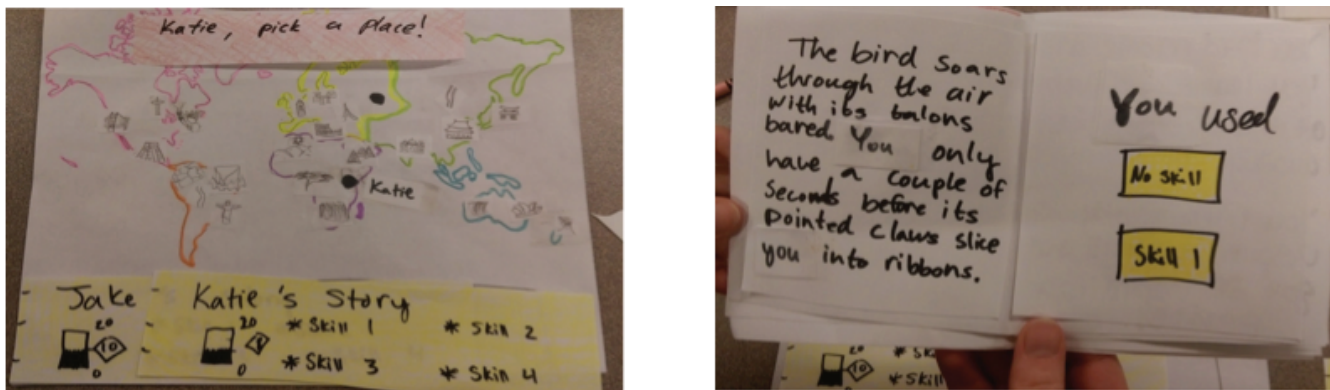*Figure 2. Screenshots from iteration 1 (left) an 2 (right).*

Figure 3. Paper prototypes from iteration 3.

Design Experiment

Our team comprised ten undergraduate students and one faculty mentor. The students' majors included Computer Science, English (Creative Writing), Philosophy, Telecommunications (Audio Production), and Art (Animation), and each earned three credit-hours during a fifteen-week semester, working together in an academic studio (Gestwicki & McNely, 2016) for two hours each Monday, Wednesday, and Friday. The team collectively agreed upon three primary goals for the design experiment in the cultural-narration genre: to use narrative as the primary form of player feedback; to teach cultural empathy; and to use technology to address problems of analog implementations.

The team proceeded with an incremental and iterative approach to game design and development. The team used a design log to record design decisions (Cook, 2011), and each iteration produced an executable release in accordance with best practices of agile software development (Cockburn, 2006); figures 2 and 4 demonstrate artifacts from the design and development process. Each iteration was tested at Connection Corner, providing valuable feedback to the team. In addition to paper prototypes, the team developed software-based prototypes using JavaFX, PlayN, and Polymer, all of which allow for HTML5 Web deployment. Game images and stories were inspired by the team's research on monsters

from world cultures, which included both research sources (such as Cohen (1996)) and children's books (especially Steer (2008) and Stowell (2013)). The team also consulted with local university experts on games, monsters, world cultures, and literacy. Each iteration concluded with a retrospective meeting, which provided an opportunity for the team's reflective improvement (Kerth, 2001; Schon, 1984).

The title and theme of our game changed between iterations as we came to a better understanding of the interplay between genre, rules, and our players. The final version—*Traveler's Notebook: Monster Tales*—positioned two players as rival authors seeking inspiration from monsters around the world. The players travel across Africa, Asia, Europe, Oceania, and North and South America to encounter monsters from local folklore. Encounters are patterned after *TotAN* as illustrated in Figure 1, and the game exhibits the five characteristics identified for cultural-narration games.
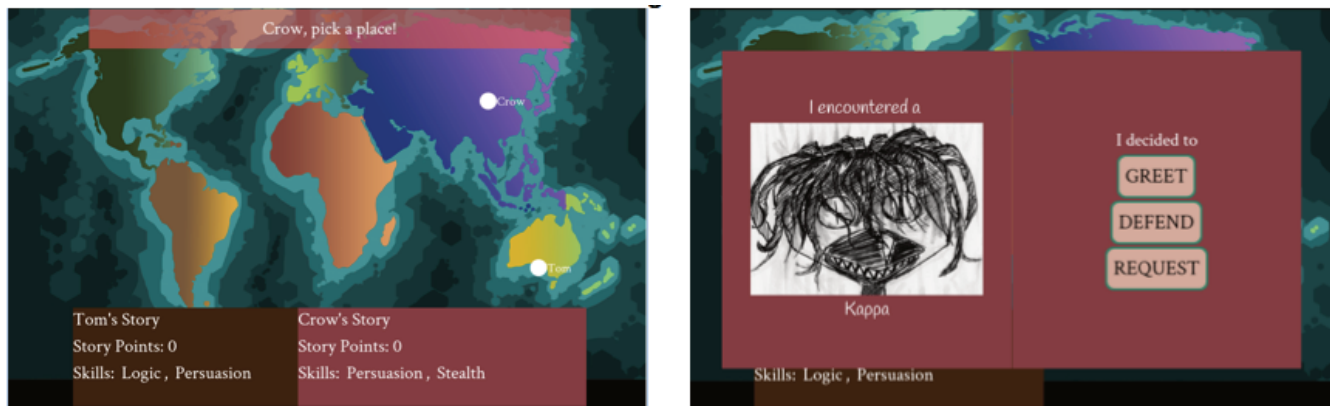

Figure 4. Screenshots from iteration 3.

While the visual design and overall rules structure remained stable throughout the iterations of our experiment, the encounter stories themselves changed dramatically. Our target audience required that both stories and gameplay had to be much shorter than in other games that we analyzed, our final version having a 175-character limit. Connection Corner is a high-distraction environment, where our game competes for attention against both formal and informal activities. The game takes approximately fifteen minutes to complete, which we found to be a good balance of keeping players' attention, making them curious to play again, and fitting within our limited means for producing content.

Conclusions and Future Work

Based on our design experiments, pilot study, and understanding of the literature, we believe there is a significant potential for culture-narration games as learning tools, particularly for cultural empathy. These games combine the educational value of learning from stories and learning from games, and they provide hooks for designers to emphasize various positive skills, including literacy, oratory, cultural empathy, history, mathematics, and strategic thinking. However, as with any educational intervention, these games do not come without complications. As others have pointed out (Slota et al., 2015, *e.g.*), the exact role of narrative in games and in learning is not well understood. Hence, we focus our conclusions on more immediate goals of continued fruitful experimentation with culture-narration games.

TotAN's 19-page instruction booklet may not faze a games enthusiast, but many are intimidated by the large rulebook, heavy box, and number of components. Combined with the duration of play, complexity

of rules, and relatively high price, such games are inappropriate for use in almost all formal educational settings such as conventional schools. However, the combination of technology enhancement, grade level writing, and shorter duration circumvents these problems. Digital implementations all but eliminate distribution costs, and with clever game design, children can play the game in the relatively chaotic environment of an informal after-school program. With curriculum aides and improved scaffolding, such as post-game debriefing (Nicholson, 2012) or reflections (Hickey, 2013), we are certain the game could be easily integrated into school environments, particularly those with ready access to computers.

The role of text within the game is worthy of particular attention. The textual expression of narrative requires that players already possess literacy skills: players who struggle with vocabulary or decoding words are easily frustrated by such games. There is an opportunity here as well, to differentiate text based on player reading level or provide embedded reading aids; however, this also transforms the dominant outcome of the game from cultural empathy to reading literacy. Player oration—having players read aloud to each other—additionally requires oratory skills. We observed engagement being enhanced when the reader employs theatrical talents as well. The precise role of oratory skill, self-confidence, and the social contract of gameplay (the "magic circle") is an area for future work.

Acknowledgements

References

Arsenault, D. (2009). Video game genre, evolution, and innovation. *Eludamos. Journal for Computer Game Culture*, 3:149–176.

Burgun, K. (2012). *Game Design Theory: A New Philosophy for Understanding Games*. CRC Press.

Cockburn, A. (2006). *Agile Software Development*: The Cooperative Game. Addison-Wesley, Boston, MA, USA, second edition.

Cohen, J. J. (1996). Monster culture (seven theses). In Cohen, J. J., editor, *Monstery Theory: Reading Culture*, pages 3–25. University of Minnesota Press.

Cook, D. (2011). Game design logs. http://www.lostgarden.com/2011/05/game-design-logs.html.

Duncan, S., Georgen, C., Cook, L., and Huang, J. (2015). "I Have to Tell You Something": How Narrative and Pretend Play Intersect in Story Games. In *GLS11 Conference Proceedings*.

Gestwicki, P. and McNely, B. (2016). Interdisciplinary projects in the academic studio. *Transactions on Computing Education*, 16(2):8:1-8:24.

Goldberg, E. (1985). Tales of the Arabian Nights. West End Games.

Goldberg, E. (2009). Tales of the Arabian Nights. Z-Man Games.

Grouling Cover, J. (2010). *The Creation of Narrative in Tabletop Role-Playing Games*. McFarland.

Hickey, D. T. (2013). Participatory Assessment: A Game Design Model for Impacting Engagement, Understanding, and (as Necessary) Achievement. In *GLS9 Conference Proceedings*.

Hirsch, Jr, E. D. (1983). Cultural literacy. *The American Scholar*, 52(2):159–169.

Honderich, T., editor (2005). *The Oxford Companion to Philosophy*. Oxford University Press, 2 edition.

Kerth, N. L. (2001). *Project retrospectives: a handbook for team reviews*. Dorset House, New York, NY, USA.

Klopfer, E., Osterweil, S., and Salen, K. (2009). Moving learning games forward: Obstacles, opportunities, & openness. Technical report, The Education Arcade, MIT. Retrieved from http://education.mit.edu/papers/MovingLearningGamesForward_EdArcade.pdf.

Laukat, R. (2015). Above and below. Red Raven Games.

Makdisi, S. and Nussbaum, F. (2008). Introduction. In Makdisi, S. and Nussbaum, F., editors, The *Arabian Nights in Historical Context: Between East and West*. Oxford University Press.

Matar, N. (2008). Christians in the arabian nights. In Makdisi, S. and Nussbaum, F., editors, *The Arabian Nights in Historical Context: Between East and West*. Oxford University Press.

Maxwell, J. (2012). Agents of smersh. 8th Summit.

Nicholson, S. (2012). Completing the experience: Debriefing in experiential educational games. In *Proceedings of The 3rd International Conference on Society and Information Technologies*, Winter Garden, Florida. International Institute of Informatics and Systemics.

Papert, S. and Harel, I. (2001). Situating constructionism. In Papert, S. and Harel, I., editors, *Constructionism: Research Reports and Essays, 1985–1990*. Ablex Publishing.

Philip, N. (1994). *The Arabian Nights*. Orchard Books, New York.

Schon, D. A. (1984). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books, New York.

Shut Up & Sit Down (2015). SU&SD's Top 50 Games Ever, 2015! #10 to #1. http://www.shutupandsitdown.com/blog/post/susds-top-50-games-ever-2015-10-1.

Slota, S. T., Young, M. F., and Travis, R. (2015). Stories, Games & Learning Through Play: An Analysis of Narrative Affordances in Game-Based Instruction. In *GLS11 Conference Proceedings*.

Steer, D. (2008). *Monsterology: A Complete Book of Monstrous Beasts*. Candlewick Press.

Stowell, L. (2013). *The Usborne Big Book of Big Monsters*. Usborne Books.

Travis, R. (2011). Practomimetic learning in the classics classroom: a game-based learning method from ancient epic and philosophy. *New England Classical Journal*, 38:25–40.