Learning With *Songo*: The African Board Game

Rebecca Yvonne Bayeck, Pennsylvania State University, ryb105@psu.edu

Abstract: This paper explored learning in the African *Songo* board game environment to understand how learning occurs through audience-player interactions. The study revealed this space enhances collaborative and argumentative scaffolding. Further examination of such space is important to rethink learning in the digital age.

Introduction

The conception of games as learning spaces is no longer questioned. A growing body of literature demonstrates that games are environments that facilitates literacies (Steinkuehler, 2007), and useful for understanding learning and literacy (Gee, 2003; Squire, 2005) as it occurs in different cultural contexts and with different learners. Yet, few studies have empirically examined African board games, and particularly *Songo*

Songo (see Figure 1) is an African board game (Bayeck, 2017) from Central Africa, played in countries like Cameroon, Congo, Gabon (Meka, 2008). The game is a long board with 14 holes, 70 seeds, played by two players who take turn to consecutively distribute seeds in holes in a clockwise direction (Owona, 2004). A capture is made on the opponent's side of the board when a pebble falls into a hole with only one, two or three counters (Owona, 2004). In Cameroon, which is the context of this study, the player with 40 seeds wins the game (Meka, 2008). *Songo* represents the Beti/Fang ethnic group philosophical approach to life (Meka, 2008), and the gameplay a true metaphor of social interactions (Owona, 2004).

From a sociocultural perspective, learning occurs in social interactions as interactions enhance the co-construction of ideas (Peppler, Danish, & Phelps, 2013). Board gameplay supports interactions such as collaboration, and cooperation (Peppler et al., 2013). Given the role of interactions in learning, and board gameplay, this study explores interactions between players and the audience. The study examines how the audience participates in the gameplay to start uncovering learning within the space of *Songo* board game.

Figure 1. *Songo* board game adapted from Owona (2004)

Learning and board games

Compare to research on video games, research on board games and learning is still limited (Carter, Gibbs, & Harrop, 2014). Board games are disregarded in modern game research despite their contribution to the development of digital games (Carter et al., 2014). Yet, some studies report that these games enhance collaboration, decision making, computational thinking (Berland & Lee, 2012), and foster communication, and players' social skills (Hromek & Roffey, 2009). However, available research on *Songo* is mostly descriptive, and mainly in the fields of anthropology, or ethnomathematics (Njock, 1985).

Method

From a sociocultural perspective, the author explores learning as it occurs through audience-player interactions in the *Songo* game space. This microethnography, uses video data in this paper to interpret audience-player interactions during gameplay (Derry et al., 2010). Clips of videos were watched multiple times, salient episodes of player-audience interactions selected, transcribed, and discussed as preliminary findings using thematic analysis. The data were collected in Yaoundé, Cameroon, during a gameplay where six male adults were interacting Given its colonial history, Cameroon is a bilingual country, with French and English as official languages, but participants here were all French speakers. The names used in this paper are pseudonyms.

Findings

Two major themes emerged from the preliminary analysis of the video clips: collaborative and argumentative scaffolding.

Collaborative scaffolding: occurred multiple times as spectators collaboratively scaffold disadvantaged players during the game. As in this excerpt, of Paul and Eric's gameplay, where Paul in the middle of the game

looks at the board, taking more time than usual to make a move, obviously hesitant because he is on the brink to lose the game. At his moment, two spectators intervene:

Fonand: Pardon, mets tes pions là, tu vas gagner *[please, drop your counters here, you will win]*.

(Paul did not make any move)

Vince: ici *[here]* (Points to the *Songo* board, and with his hand showed Paul which hole he should play).

Acting upon that suggestion, Paul captured three counters from his opponent side. This interaction demonstrates collaborative scaffolding as Paul received helped from two spectators. This scaffolding is situated and responds to Paul's need in the game.

Argumentative scaffolding involves discussion between players and the audience where each party tries to justify the decision taken or suggestion given during the game. The excerpt below shows how involved spectators become during the game giving more suggestions and arguing with the player.

Fonand: tu as gagné le match, mets ici, c'est fini *[you've won the game, drop the counter here, it is finished]* (using his finger to designate a hole on the board)

Paul: non, je dois accélerer d'abord avec ceci *[no, I must quickly move with this one first]*

(rejects the suggestion and points at a different hole)

Fonand: non, mets seulement *[no, just drop it]*

(insists on his previous suggestion, and points to the hole where Paul should play from)

Doul: mets seulement *[just drop it]*

(this spectator insists as Paul hesitates)

Fonand: c'etait un but, il devait bien casser *[it was a goal, he should have cut it well]*

(reacts to Paul's rejection of his suggestion, and decision to plays pebbles a different hole)

Paul: non il ne faut pas dire ca, c'est que quand on m'indique je m'embrouile [*no don't say that, the fact is that I am confused when I am directed]*

Arguing with Paul, while guiding him evidences complex learning situations that *Songo* gameplay affords to participants as they share their knowledge and encourages reflection on a player's gameplay.

Conclusion

The preliminary findings discussed in this paper give insights into forms of interactions important for understanding learning in the 21st century and could contribute to the learning sciences rethinking of learning in the digital age.

References

Bayeck, R. Y. (2017). A review of five African board games: is there any educational potential?. *Cambridge Journal of Education*, 1-20.

Berland, M., & Lee, V. (2012). Collaborative strategic board games as a site for distributed computational thinking. *International Journal of Game-Based Learning, 1*(2), 65–81.

Carter, M., Gibbs, M., & Harrop, M. (2014). Drafting an army: The playful pastime of Warhammer 40,000. *Games and Culture, 9*(2), 122-147.

Derry, S. J., Pea, R. D., Barron, B., Engle, R. A., Erickson, F., Goldman, R., Sherin, B. L. (2010). Conducting video research in the Learning Sciences: Guidance on selection, analysis, technology, and ethics. *Journal of the Learning Sciences, 19*(1), 3–53.

Meka, O. J.M. (2008). *Le jeu du songo : Reflets du social.* Cameroun : L'Harmattan

Njock, G. E. (1985). Mathématiques et environnement socio-culturel en Afrique Noire. *Présence Africaine, 3*, 3-21.

Peppler, K., Danish, J. A., & Phelps, D. (2013). Collaborative gaming: Teaching children about complex systems and collective behavior. *Simulation & Gaming, 44*(5), 683-705.

Owona, S. M. (2004). *Le jeu de Songo*. Paris, France: L'Harmattan.

Hromek, R., & Roffey, S. (2009). Promoting social and emotional learning with games: "It's fun and we learn things". *Simulation & Gaming, 40*(5), 626-644.

Acknowledgments

This research was funded by the Africana Research Center of the Pennsylvania State University.