The Interplay of Game Design and Pedagogical Mediation in Game-Mediated Japanese Learning

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ABSTRACT

Commercial off-the-shelf, or vernacular digital games have been studied in foreign language (FL) pedagogy. However, few have examined how a game design interacts with pedagogical mediation. This study explores the interplay of game design and pedagogical mediation for learners of Japanese. Learners played a vernacular game in Japanese and used activity worksheets and a reference list. Findings from the vocabulary tests and questionnaires show that materials can focus learner attention on particular vocabulary, but that vocabulary functionality also plays a role in learning. In-game vocabulary was identified as primary or secondary based on its necessity for successful game completion. When both types of vocabulary were combined, results showed good retention between the posttest and delayed test. When separated, the primary vocabulary was retained well, but the secondary vocabulary was not retained. This confirms that in-game vocabulary functionality impacts learning and implicates the careful design of supplemental materials to guide FL learners’ attention.

KEYWORDS


INTRODUCTION

With ubiquitous connectivity and increased economic roles in a society, fast-paced technological development has changed modern media, which are actively embedded into everyday lives (Waterman & Ji, 2012). Conventional learning environments, goals, assessments, and stakes have been shifted by these technological advancements (Ware & Hellmich, 2014) because the ways in which people engage with them entail learning and language use (Gillen, 2014). Kern (2000) argues for an expanded view of text as written, oral, visual, and audio-visual, as digital technologies and media environment are “altering our understanding of literacy and requiring new habits of mind, new ways of processing culture and interacting with the world” (Jenkins, 2009, p. 33). Among various media types, digital gaming can be considered a form of participatory culture (Jenkins, 2009), and game players can be considered prosumers (producer-consumer) (Armour, 2011). While consuming the product (game) and producing their experiences, game players are actively engaged and involved in gaming as literacy practice (Gee, 2007). Although digital gaming might be considered learning in the future (Steinkuehler & Squire, 2014) and as a global phenomenon is highly relevant to foreign and second language (L2) use (Thorne & Reinhardt, 2008), game-mediated L2 teaching and learning (L2TL) is not yet fully embraced in L2 classroom and curricular practices, for a variety of reasons (see deHaan, Reed, & Kuwada, 2010).

Game-mediated L2TL can be divided into game-based, meaning the creation and use of games designed specifically for L2TL purposes, or game-enhanced L2TL, which refers to the adaptation of
vernacular games for L2TL (Reinhardt & Sykes, 2012). Much attention has been given to the social learning potential of massively multiplayer online games (MMOG) (e.g. Peterson, 2011; Rama, Black, van Es, & Warschauer, 2012; Thorne, 2008). However, playing the most popular MMOGs usually requires at least an intermediate linguistic proficiency level because playing MMOGs allow for synchronous written and oral online communication with other game players (i.e. native and non-native speakers) for successful game completions. As such, playing MMOGs requires not only linguistic proficiency but also communicative competence (Peterson, 2011, 2012; Rama et al., 2012). In addition, implementation of MMOGs into the class curriculum poses challenges to L2 instructors because: (1) in-game language and communication among players may require responses on time and may contain excessive vocabulary, forms, and virtual-world expressions; and (2) preparation (i.e. learning game rules) is necessary to make meaningful learning experience out of gaming, particularly for L2 learners who do not play digital games or MMOGs (Peterson, 2011, 2012; Rama et al., 2012). While this may be complemented by the L2 instructors’ guidance and supplemental materials or activities, Rama et al. (2012) also note that the lack of controllability over the interaction and language use in a MMOG makes it an unpredictable learning platform, “MMOGs allow players a lot of freedom, which is one of the major draws to this game genre. However, for L2 learning, this freedom comes at a cost” (p. 336). Therefore, in terms of pedagogical implementation, other genres might be considered—for example, simulation, adventure, and strategy games (see Sykes & Reinhardt, 2012, p. 145). Considerable research on the simulation game *The Sims* (Miller & Hegelheimer, 2006; Purushotma, 2005; Ranalli, 2008), for example, shows potential for that game as a learning resource for a variety of reasons, including the Involvement Load Hypothesis (Hulstijn & Laufer, 2001) where need, search, and evaluation interplay to create learner engagement and focused attention in vocabulary learning. Hulstijn and Laufer (2001) assert that in addition to multiple exposures to new words, accompanied tasks are essential for vocabulary learning. Miller and Hegelheimer (2006) and Ranalli (2008) have also found that teacher-made supplemental materials that complement the gaming are useful for directing learner attention to specific target language when vernacular games like *The Sims* are used as classroom resources.

Creating materials that focus learners’ attention onto particular language while they play the game is challenging, however, because in most games, players are exposed to different input as they follow different possible pathways through the game (Neville, 2010). In an adventure game, some paths are pivotal gateways through which all players must pass, while other paths are tangential or optional. Accordingly, the language needed to make it through a pivotal gateway is primary to successful gameplay, while the language of tangential pathways is secondary. With this in mind, the current study sought to investigate the interplay of pedagogical mediation, in the form of teacher-designed supplemental materials, and vocabulary functionality in game design, or the degree to which language in a game is key to successful gameplay.

**LITERATURE REVIEW**

**Vernacular Games and FL Learning**

Digital games have been actively studied in foreign language (FL) pedagogy as a new tool to enhance language learning (Reinders, 2012; Sykes & Reinhardt, 2012; Thorne, Black, & Sykes, 2009), because they are recognized as having the potential to engage L2 learners in their own process of learning (Reinders & Wattana, 2015). Among them, vernacular games (i.e. not created for a specific educational purpose) especially embed genuine cultural texts and support authentic literacy practices that may develop critical cultural and language awareness (Reinhardt, Warner, & Lange, 2014; Sykes
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