

学 位 論 文 の 要 約

論文題目 THE POTENTIAL OF COOPERATIVE DIGITAL GAMES FOR SLA: AN ANALYSIS OF INTERACTION AND ATTITUDES AMONG JAPANESE LEARNERS OF ENGLISH
(SLAにおける協調的デジタル・ゲームの可能性：日本人英語学習者の相互対と意識・態度に関する分析)

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学位論文の要約

This doctoral thesis consists of three related empirical studies, the first two of which investigate the effectiveness of one cooperative digital puzzle game, Keep Talking and Nobody Explodes (Steel Crate Games, 2015), in facilitating second language acquisition (SLA) during play, while the third study aims to shed light on the attitudes and beliefs held by Japanese learners of English towards digital game-based language learning (DGBLL) in general. The findings of previous studies in the field suggest that digital games belonging to certain genres, notably massively multiplayer online role-playing games (MMORPGs) and simulation games, can be particularly effective in facilitating SLA due to the affordances provided by their design and game mechanics. The first two studies presented here build on this existing research by exploring the potential for SLA of a relatively new genre of digital game, namely cooperative puzzle games built around an information-gap game mechanic. Prior to this project, such games had not yet been thoroughly investigated in the literature on computer-assisted language learning (CALL). Another original aspect of these studies lies in the fact that the linguistic output data were collected during face-to-face spoken interaction between learners, a mode of communication that had been largely neglected in existing CALL and DGBLL research, which has historically focussed mainly on computer-mediated written interaction. The third study in part replicates a previously published investigation into learner attitudes towards DGBLL in Japan, but improves on the generalisability of the earlier

study's findings by representing the attitudes of a different cross-section of the learner population in Japan. The new study also expands on the scope of its predecessor through the inclusion of additional demographic and attitudinal variables, as well as by investigating the effects of first-hand DGBLL experience on learner attitudes and beliefs.

The first study investigates the potential of the game *Keep Talking and Nobody Explodes* from a cognitive-interactionist SLA perspective. A case study approach is employed in which three upper-intermediate-level learners of English at a Japanese university played the cooperative puzzle game over four sessions. A three-tiered interaction analysis was performed on the learners' linguistic output in order to identify instances of negotiation for meaning and associated interactional strategies. The findings confirm that negotiation for meaning occurred and suggest that breakdowns in communication resulting from vague language usage and from gaps in lexical knowledge are most likely to elicit beneficial forms of negotiation. In addition, learners are shown to have made regular use of various interactional strategies, either to repair breakdowns in communication or to pre-empt such breakdowns. Clarification requests and elaboration on previous utterances are shown to have occurred during interaction and the analysis suggests that these two strategies are the most likely to elicit substantial modified output that may lead to SLA.

The second study begins by reviewing different analytical approaches taken in the existing CALL literature to evaluate the effectiveness of DGBLL. The limitations of each approach are discussed, after which an alternative approach is proposed: a direct qualitative discourse analysis aimed at identifying probable instances of SLA as they occurred in meaning-focussed learner interaction. This novel approach provides new evidence for language acquisition that is to a lesser extent theoretically mediated than the evidence produced by previous qualitative studies. A selection of probable acquisition episodes (PAEs) are identified from the previously-collected interactional data set and these are then

systematically analysed. Although these episodes do not provide definitive evidence, they strongly suggest that certain forms of game-based interaction hold the potential not only to expand learners' second or foreign language (L2) vocabulary, but also to facilitate the acquisition of grammatical structures.

The third study shifts the focus from questions regarding the processes and effectiveness of game-based learning to the attitudes and beliefs that language learners may hold towards DGBLL as a pedagogical approach. In order to elucidate learner beliefs and attitudes, survey data were collected from 112 undergraduate student participants at a large public university in Japan. Analysis of this data reveals that the learners generally already held positive attitudes towards DGBLL prior to taking part in the intervention and, after playing the cooperative game *Keep Talking and Nobody Explodes* over six weekly sessions, the learners reported even stronger positive attitudes towards this approach. In contrast to the findings of some earlier studies, gender was not found to have been a statistically significant predictor of attitudes towards DGBLL. However, two other demographic factors, namely information technology literacy and digital gaming experience, correlated positively with several measures of attitude. In addition, thematic analysis of the open-ended responses reveal that the learners considered enjoyment to be the most important advantage of DGBLL. Nevertheless, a substantial minority also expressed doubts concerning the effectiveness of digital games for the purposes of language education, seemingly stemming from the belief that meaningful learning and enjoyment are two fundamentally incompatible pursuits.