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Thesis title: A case study investigation of an adventure video game: Second language development through the lens of sociocultural theory

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This research is a case study investigation into game-enhanced digital game-based language learning (DGBLL) using the commercial video game “Detroit: Become Human” (DBH). Ten students from Japanese universities took part in this study over the course of six weeks. The study incorporated a case study design and comprised of three interconnected stages. The first stage examined the language of DBH using corpus analysis and feedback from learners related to the language they were exposed to during play. Findings revealed that although learners perceived the language in DBH to be like real-world language, there were significant differences due to the mechanics of gameplay and the narrative theme. Narrative language of DBH was found to be like real-life TL language in categories of mental verbs, first person pronouns, attentions signals and greetings/farewells. Four categories showed a medium difference: second and indefinite pronouns and attention signals while another four showed a large difference: activity verbs, contractions, informal contractions, expletives, and response forms. For example, as mentioned in Chapter 5, the higher number of activity verbs and second person pronouns are due to the lack of NPC-quest givers in DBH. Instead, the game uses cutscenes and character dialogue to direct the player to what they must do to progress. Secondly, because of thematic reasons of conflict, some characters were written to be especially aggressive and confrontational, increasing the usage of expletives. Some participants also reported that several words in DBH may be difficult to understand for people with lower English language proficiency, with a few mentioning genre-specific words. The analysis showed the presence of low frequency vocabulary related to the genres of science-fiction and crime and police investigations. A few examples included narcotics, lieutenant and biocomponents. Analysis of interactive language showed that language of this type was direct and concise. However, participants expressed some frustration with interactive language, particularly the kind found in choice selections. Choice language often consists of one- or two-word options and required players to recall the context, read the atmosphere of the situation or see from the point of view of the character they were playing. Sometimes this led to participants misinterpreting the options and how the responses would be conveyed by characters. In this sense, although interactive language was simple, additional skills were necessary to understand the meaning of language in choice options such as contextual awareness and conversational nuances.

The second stage of the study investigated the effect of participant background, particularly in terms of gaming experience and English proficiency on perceptions of DGBLL. Participant gaming experience and English proficiency were first established using a pre-game a questionnaire. Then, analysis of post-game interview data revealed several findings including that participants with higher gaming experience experienced issues with usability, leading to a preference to watch their partners rather than play. Some participants mentioned the punishing nature of QTEs in terms of in-game consequences, while others described a lack of learning curve. In terms of perceptions on cooperative play, two out of three category one participants found the cooperative play to be a positive experience. However, the positive reasons stated by the two low game experience participants were not directly associated with the gaming

experience level of their partners, who were both highly experienced. Similarly, both category 3 participants also reported a positive experience despite the low gaming experience level of their partners, although their reasons were different: mainly shared experience and the assistance of the partner in the role of a watcher. Pertaining to language proficiency, although the participants in the study were identified as higher-level learners, in post-study interviews, a few participants could recall unknown words encountered in DBH. This positive finding reflects the fact that the context and feedback provided by the game appeared to enhance understanding of new vocabulary. Furthermore, because most participants had a history of learning language with video games, the perception of game-enhanced language learning was generally positive. In the latter part of the analysis of RQ2 pertaining to reflection journals, several themes emerged, describing what learner attention was drawn to. Most entries were related to the mechanics of DBH, characters and the assigned partner. Many participants reflected on the choices made during the sessions, with failure being a prominent theme. Although this was the case, the quality of reflections was not equal across participants, with participants who reflected on how they could improve showing the best improvements in terms of accomplishing tasks in the target language (TL). For example, one participant noticed their need to improve on communication with their partner and proceeded to work on that in future sessions.

The third stage of the analysis investigated learner interaction through the lens of sociocultural theory and attempted to identify if the use of DBH could create an environment conducive to second language acquisition (SLA). The data in this part of the study was collected through analysis of video and audio transcriptions of the gameplay sessions. From the analysis of learner interactions, data suggests that DBH can create an environment beneficial to SLA from the perspective of the sociocultural account of SLA. Firstly, in the category of task related assistance, tasks were simplified using orders and suggestions. This type of interaction was present in both players and watchers although the intention was different. For a watcher, orders and suggestions were used to provide a possible solution or as an avenue of active participation. As a player, an order or suggestion was verbalized to announce to the watcher what the player intended to do, facilitating mutual understanding. Secondly, participants pointed out objects and other points of interest in the game to help players locate interactable elements, which was especially important because players often did not notice details as often as watchers did. In addition, because watchers did not have direct control over what happens, the role of the watcher allowed some participants who experience anxiety over consequences of DBH to express themselves more freely. Fourth, stressful situations in DBH encouraged participants to give support and emotionally regulate themselves and their partners, creating a supportive environment conducive to SLA.

Next, there were episodes of effective requests and assistance in lexis and peer-initiated corrections, establishment, and maintenance of intersubjectivity and interaction which encouraged social cohesion. Contradictions between players were identified via breakdowns in communication and shared understanding. Most pairs had only a few of these contradictions apart from two. Generally, the higher number of contradictions were attributed to differences in understanding and preference. Contradictions themselves were not necessarily a negative form of interaction. As explained in the literature review, contradictions can bring gaps of knowledge and problems into focus, leading to better understanding and learning. However, if contradictions are not handled in a productive way, there may be no benefit to them, and they would instead continue to be a hindrance. Overcoming contradictions can be attributed to how participants

communicate and their attitudes towards DBH and their partners. In the category of private speech, participants used more private speech as a player compared to a watcher. Numbers which stand out include the comparatively lower frequency of private speech in category 3 participants S and T, while L (who is category 1) has a significantly high number of private speech utterances. Since players need to dedicate attention to playing the game, private speech likely helps them self-regulate and internalize the TL. Three types of private speech were observed in the game sessions. Firstly, task related private speech related to various topics such as objects, locations, and characters. The second form was repetition of NPCs and characters and third, repetition of goals. In the category of non-task related talk, casual talk and humor was used as a means of increasing rapport as well as facilitating language production.

The results of the study report generally positive findings that contribute to existing literature in several ways. Firstly, the results add to the understanding of the connection between video game narrative and gameplay genre, and how language is presented to learners engaging in DGBLL. Secondly, the study adds to the understanding of learner background and how they approach and perceive DGBLL, especially with regards to their previous experiences with gaming and learning through the medium. Furthermore, the study provides insight into gameplay elements drawn from DBH that may influence affective factors, which are beneficial to practitioners interested in developing games for language learning purposes. Lastly, analysis of data reveals that engagement with DBH can generate positive accounts of learner interaction contributing to social accounts of SLA.