Blending Video Games Into Language Learning

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ABSTRACT

Around 2 billion people worldwide engage in video games and a similar number of English language learners are anticipated by the year 2020. It can be assumed that many language learners are also 'gamers', and that a language learner may play a video game to learn English. This article focuses on the language learning affordances in offline video games. General game-based learning principles identified by Gee are used as the method to identify and classify the learning affordances in a selection of video games. These learning principles are explained and then used to detail general learning opportunities inherent in a variety of video games. It suggests that language learning opportunities on video-games are too varied and that the scaffolding guidance of a teacher might be needed. It concludes by proposing that contextualized live video-game-like immersive experiences could also be conducive to language learning.

KEYWORDS

Blended-Learning, English, Gamification, Language learning, Video Games

INTRODUCTION

Not all learners are keen video game players (Godwin-Jones, 2016, p. 14) and the language required to interact within video games can be overwhelming for novice learners. However, there are more than 2 billion video game players worldwide (Newzoo, 2016; Michaud, 2011) and the number of active learners of English is predicted to be more than 1.9 billion by 2020 (IH London 2014; British Council 2013: 2). Therefore, it is reasonable to assume that many video game players are also language learners and that many English language learners choose to play games to improve their English.

Different types of video game genres present different experiences. Role-playing games require decision-making and have branching narratives that change in accordance with player decisions (Gee, 2005), Simulation games replicate real-world situations in virtual environments where time and physical context are compressed, and Exploration let players freely roam an atmospheric virtual environment, interacting with objects and discovering story details (Parkin & Stuart, 2015). It is possible that language learning can occur by playing games of these genres. Studies have reported positive effects such as improvements in participation, pronunciation, and writing as a result of playing games (Ahmed, 2012). Other studies suggest playing games leads to improvements in declarative-

knowledge, procedural-knowledge, knowledge-retention, and self-efficacy (Vogel et al., 2006), and developments in comprehension, application, analysis, and evaluation skills (Sitzmann, 2011).

The interactive aspects of games and how audio-visual presentation can benefit learners has been reported as under-researched (Vorderer & Bryant, 2009 p. 15). Questions concerning how the learning potential of playing games and participating in associated activities can be used in language development and informing educational content also need further exploration (Godwin-Jones, 2016; Reinhardt & Sykes, 2012; Williamson, 2009, p. 10, deHaan, 2005). Overall, video games are yet to be realistically considered as a language learning technology. For this to happen a combination between innovative technology use and dependable pedagogy is required (Thomas, 2011), which is ultimately the goal of this project.

METHODOLOGY

This study identified learning opportunities in video games, considered them in relation to language learning systems and strategies, and contemplated their integration into contemporary language teaching. To do this, it identified and categorised examples of learning affordances, specifically those related to presentation and motivation factors, in analysing how the visual and interactive contexts of language of games are beneficial for language learners and could be incorporated into language teaching.

To ascertain whether video games are appropriate language learning tools this study assumed that learners are either fans of playing video games or willingly engaging with video games to learn English. It also considered learners to be studying at approximately CEFR B1 level (CEFR, 2011) as this would mean they possessed appropriate skills in recognising and interpreting information, straightforward instructions, different text types, and various aspects of language to successfully interact with a video game in the language they are learning.

Gee's observations of games as customisable learning opportunities that suit individual learners and encourage adaptive approaches to learning (2013; 2007; 2005) were used to identify examples of learning possibilities, or "affordances", in a number of contemporary "offline" video games. His "Empowered Learners" principles focus on how games engage learners by allowing them to assume a productive role in designing and altering the experience. "Problem Solving" considers the challenges that video games offer learners, how they are presented, what scaffolding and support are provided, and player motivations. The "Understanding" principles highlight how video games can strengthen behaviours and embed values, as well as how games provide meaning to words and concepts (see Figure 1).

Identified examples of potential language learning opportunities in games were compared and contrasted with theories such as 'noticing' and 'autonomy'. The cognitive benefits of exposure to written and auditory text, and the extent to which linguistic features and extralinguistic clues help learners to notice gaps in their English language knowledge, were also used in evaluating the potential for the use of video games in learning. In some instances, examples of how video games can be used in language teaching have been suggested.

Figure 1. Gee's video game learning principles (2013)

Category	Principles
Empowered Learners	Co-design, Customize, Identity, Manipulation and Distributed Knowledge
Problem Solving	Well-Ordered Problems, Pleasantly Frustrating, Cycles of Expertise, Information "On Demand" and "Just in Time", Fish Tanks, Sandboxes, Skills as Strategies
Understanding	System Thinking, Meaning as Action Image

## The Presentation Affordances of Using Video Games in Language Learning

Video games can potentially benefit a language because they utilise a variety of modes of presentation that go beyond what can be achieved with traditional learning materials (Reinders and White, 2009, p. 66). In Gee's learning principles (2013, p. 21-36) the learning affordances that are most influenced by a game's appearance and visual capabilities are the "Customize" and "Identity" principles that empower learners, the "Information On Demand and Just in Time" principle that challenge learners abilities to solve problems, and "Meaning as Action Image" which enhances understanding.

Video games have customisable settings that can be altered to allow greater accessibility (see Figure 2). As well as difficulty or button-mapping there are other adjustable settings that satisfy cognitive needs such as being able to adjust language and text delivery speed (Turkay et al., 2014). It is possible that the way a video game is presented might help learners to acquire new language as they play (deHaan, 2005). Strategy game *Civilization VI* lets players choose to experience the game in many different languages and the amount of in-game information that is given can be adjusted. Narrative-driven action games *Dynasty Warriors 8* and *Final Fantasy XV* allow players to combine spoken audio and foreign text in different combinations, which some players find to be the most enjoyable way to interact with these experiences (Hoss, 2016; Maki, 2016).

In learning, the aspects of presentation in digital media could be used to highlight grammatical components, the proper use of words and phrases, and to promote active viewing (Ahmad, 2012) and the meaning and pronunciation of new vocabulary can be easily demonstrated. Adjustable subtitles and closed-captions can positively influence learner motivation, listening skills, vocabulary growth, speaking fluency, and language comprehension (King, 2002). Playing a video game could lead to greater understanding of how phrases are formed, of how meaning is derived from context, and how spoken and written information can be processed more efficiently (Danan, 2004). As well as this, a typical language learner may come to better understand nuances of dialogue, narrative, storylines, idiomatic expressions, informal language, and jokes via the way language can be presented in games (King, 2002: 516-517). This is because the simultaneous presentation of sounds, words, and graphics, assists learners in making connections between vocabulary, images, and actions (Shaffer et al., 2005).

Many games allow players to assume an interesting and desirable persona to invest in when playing (Gee, 2013: 25). By assuming a role, completing tasks in that guise, and interacting with non-player characters, a substantial range of motivations and emotive responses can be triggered which can lead to effective learning (Fiellin, Heftje, Edelman, & Camenga, 2016). By investing in in-game characters, storylines and tasks, learners use cognitive strategies to understand words and phrases because they desire to be involved in the experience (Lee, 2008). Such investment in a new identity

Figure 2. Video games allow different ways to customize language delivery.Copyright © 2015 MangaGamer. / Copyright © 2013 Koei Tecmo. www.koeitecmoeurope.com.

Text: DISPLAY JAPANESE TEXT (When character dialog is in Japanese)
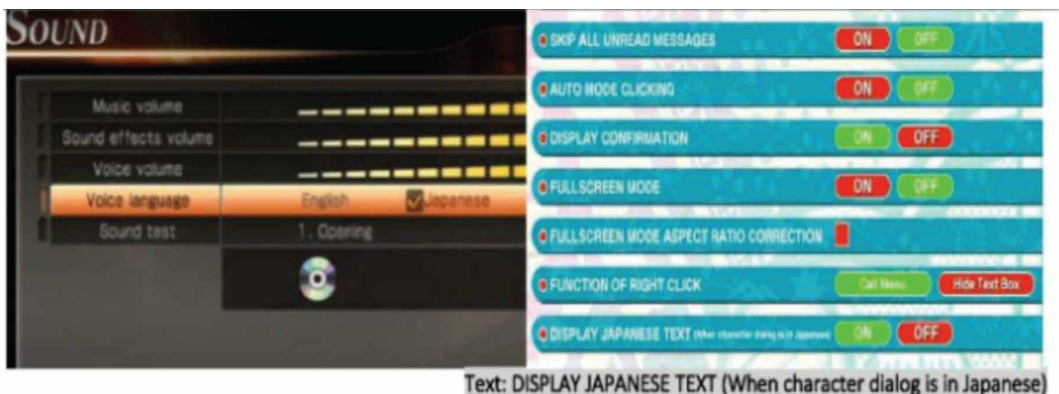
can increase confidence, engagement, and risk-taking (Chen, 2016; Peterson, 2016). In *Assassin's Creed Syndicate* the player-characters, Jacob and Evie Frye, speak with regional London accents and express themselves by using collocations, phrasal verbs, sociolect phrases, and idioms (see Figure 3). Language features that could be used in class discussions, or may be noticed by a game-playing language learner. As well as discussions, presentations, summaries, and evaluations about the use of English in video games (Frost 2008), game-based tasks could be linked to raising cultural awareness, which would benefit language learners relationships with other speakers of English (Lopez-Barrios, 2013, p. 284). Exposure to narrative systems and structures not only provides material for language analysis regarding features, characteristics, and depictions of people, but it also challenges learners to interpret cultural contexts, and question media depictions of the world (Williamson, 2009, p. 15). Developing intercultural awareness in this way could be valuable in navigating and constructing meaning (Lee, 2008; Shaffer et al., 2005; Um and deHaan, 2005).

Games have instruction design that brings meaningfulness and purposefulness to the experience (Squire, 2013). In some instances, the textual and verbal information in games is applied to situations where it is needed most, or "Just in Time" (Gee, 2013, p. 30). This gives learners an opportunity to immediately apply it. For instance, *Scribblenauts Unlimited*, a game in which players type adjectives and nouns to make in-game items appear, presents instructions that need to be instantly applied to complete tasks. Some games that provide optional information, accessed via the game's pause menu that is accessible at a time of choosing. Gee labels this "On Demand" information (Gee, 2013, p. 30). Such information as this may inspire self-monitoring of learning (Little, 2016). For example, *Assassin's Creed Syndicate* provides players with a database containing information about locations in the game's Victorian London setting such as Westminster, and biographies of notable people such as Charles Dickens (see Figure 4). These texts are relatively short and easy to read and are often by narration. It is possible that they would improve the receptive abilities of a learners who engaged with them. In class, teachers could ask students to read such texts and to listen to the audio as part of a comprehension activity. They may find that they increase learner engagement.

Parallels can be made between video game instructions and task-based language learning. Task-based learning typically begins with a pre-task in which the topic is introduced and clear instructions are given and while learners engage in the main task, teachers provide instruction and guidance that learners can directly apply to the task (Frost, 2008), as do many games by using language to afford players access to information and guidance which they cannot neglect if they are to successfully complete in-game tasks (Lee, 2008). The *Civilization* video games contain an abundance of authentic information about topics including religion, culture, and technology which is accessible any time via

Figure 3. Language in Assassin's Creed Syndicate is representative of regional London accents, which may provide language learning opportunities. Copyright © 2015 Ubisoft. www.ubisoft.com.

Text: "Lost your bottle [nerve], boys?"

Figure 4. The Encyclopedia in Assassin's Creed Syndicate provides additional information about the Victorian London setting. Copyright © 2015 Ubisoft. www.ubisoft.com.
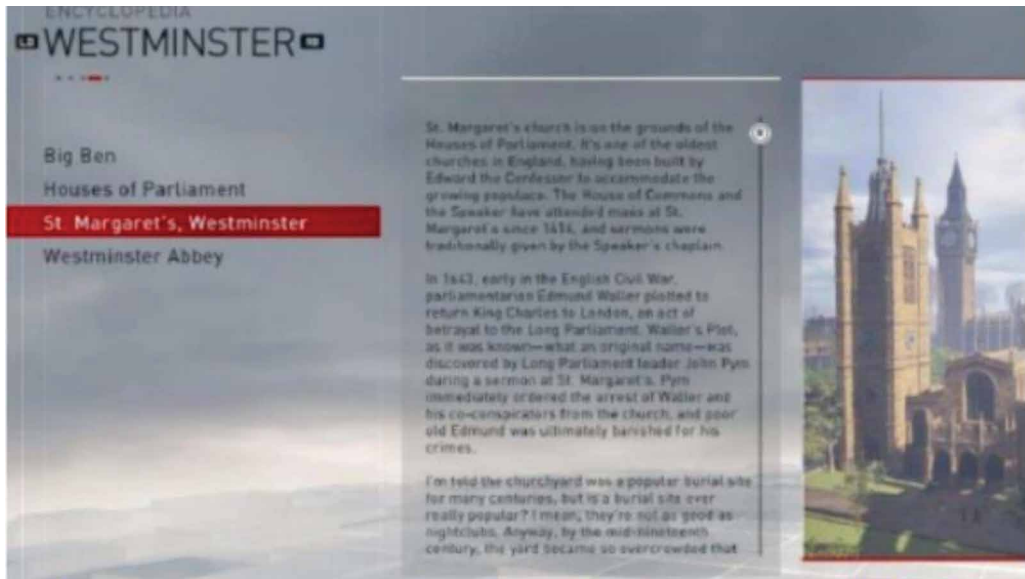
an in-game encyclopaedia (McCall, 2011). This could provide learners with exposure to language in a clearly defined historical context. Similarly, a learner may acquire new vocabulary or phrases about architecture or city planning if they play simulation game *Cities: Skylines* because they are exposed to specific language about buildings, utilities management, budget control, and statistical data which they need to understand to play the game. For a motivated learner, it is possible that they could overcome language barriers to better enjoy the game. Because learners might fail to direct their attention appropriately, it would not be possible to anticipate exactly what information they would learn from a video game (Frost, 2008). However, with good scaffolding and support from an educator, learners could complete tasks in a game whilst taking control of learning. Learning in this way would provide developmental gains and increased participation from lower-ability students.

According to Williamson video games can be seen as skill building practical and professional tools that allow learners to adopt identities and practices in meaningful ways 2009, p. 14). Video games create meaningful contexts in ways including by providing background information involving characters that the player cares about or referring to situations that are important to the player (Vorderer & Bryant, 2009, p. 22). As a result, players use facts, logic and rhetorical structures to interpret events and personally connect with the experience (Nathanson, 2006). Games provide incidental learning situations in which players learn facts, solve problems, and understand complex ideas (Squire, 2013). *The Walking Dead* is an example adventure game that has a branching narrative where events happen differently depending on decisions made. The player selects dialogue and makes choices that influence how the story develops (see Figure 5). Gee labels the authentic opportunities in games "Meaning as Action Image and argues that if memory and recall are based upon mentally preserved records of actual experiences and the interconnected patterns between them (Gee, 2013, p. 16), then the context-giving nature of games like *The Walking Dead* could benefit language learners by making the meaning of words and instructions clear (Gee, 2013, p. 31).

Practising language comprehension in virtual worlds may be of benefit to language learners and virtual environments could be used by educators as context-providing situated learning tools (Gee, 2013; Um & deHaan, 2005). In games the situated meaning and practice

Figure 5. Players choose dialogue options that change how NPCs interact with them in tell-tale adventure game. The Walking Dead Copyright © 2012 Telltale Games. www.telltale.com.

directly show how information is linked to actions and which helps recall as activities performed are better remembered than just information someone learns (Gee, 2013, p. 35). In a specific learning situation such as teaching English to footballers, materials need to be used that cater specifically for learner's needs. Such learners might struggle to engage with traditional teaching materials but could show increased engagement when vocabulary and grammar are presented in football contexts (Redmond & Warren, 2012). In *Football Manager 17* the role of a football club manager is assumed by the player. As the manager, the player is responsible for team training, match tactics, selecting players, talking to the press, buying and selling players, negotiating contracts, and maintaining squad morale. The manager can express themselves in the game by selecting on-screen text boxes that contain examples of motivating, inspiring, and degrading language and can choose their manner of speech (see Figure 6). Interacting with the game in this way may stimulate language acquisition by practising comprehension, reading, planning, and co-construction of meaning in interaction and could also further the players' understanding of specific language functions, such as making and responding to requests, giving and receiving information, creating plans, following instructions and finding solutions (Zheng, Newgarden, & Young, 2012).

Figure 6. In Football Manager 16 to be 'calm', 'assertive', 'cautious' or 'passionate' when interacting with players or press. Copyright © 2017 Sports Interactive. www.sigames.com.
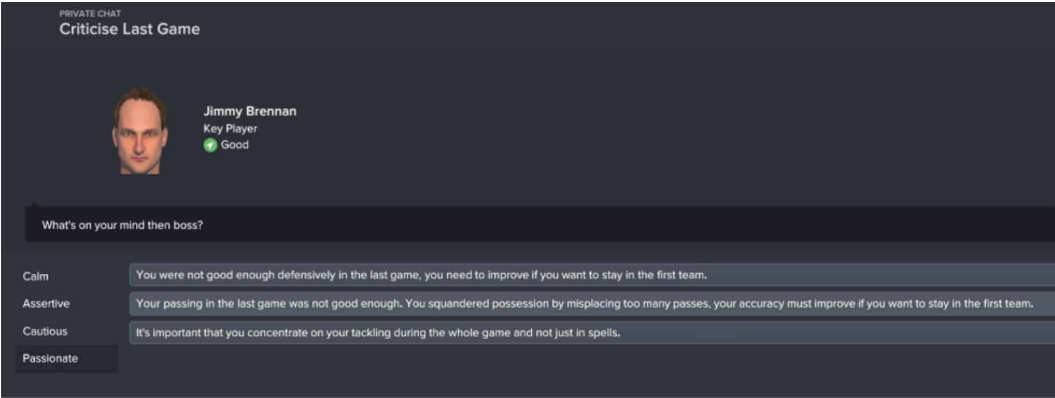
The Motivational Affordances of Using Video Games in Language Learning

Video game players enjoy the challenge that games present (Garris, Ahlers, & Driskell, 2002). A language learner enjoying the challenge of a video game could be motivated to seek new language information so that they can overcome in-game language barriers. For instance, they might choose to improve their language ability, for instance by figuring out meaning of unknown words or phrases, so that they can continue playing (Lee, 2008).

"Co-design" mostly concerns interactivity affordances of video games (Gee, 2013, p. 23). For language learning, it is in learners gaining new information creatively, altering existing knowledge, and developing existing ideas that some potential benefits of using video games as language learning tools can be found (Lee, 2008; Shaffer, Squire, Halverson, & Gee, 2005, p. 108). While some traditional teaching places importance on what learners can remember, teaching in video games focuses on testing what players can do (Squire, 2013) so they continue improving their abilities because they feel that they are constantly progressing. In *The Walking Dead* and *Fallout 4* games, the way players interact with objects and people has repercussions concerning how the world appears and how non-player characters (NPCs) interact with the player. This allows players to influence situations through language, which causes them to become invested decision makers who alter the game in irreversible ways (Gee, 2013, p. 23). Cognitive learning occurs as learners control aspects of the experience in creating their personal experience. Players are active participants who orchestrate achievements by completing guided lessons and demonstrating an understanding of instructions (Gee, 2013). For example, *Civilization VI* has game mechanics that involve players managing resources, developing culture, controlling industry, and conducting scientific research which leads to them exploring "the main arcs of technological cultural, military, economic, and scientific developments and their impacts on civilizations (McCall, 2011, p. 45)" (see Figure 7). *Civilization* games can help learners to understand advantages and disadvantages of resource management and global trading. While much of this learning would be self-directed, games such as *Civilization* could serve as an original source of information for in-class analysis tasks and discussions (McCall, 2011, p. 102). Also, interactions with in-game characters such as those in *Civilization VI* could also benefit learners in both language and history due to repeatedly using history-relevant language that could assist the realisation of their communicative intentions in productive speaking and writing skills (Llinares and Dalton-Puffer, 2015; Dalton-Puffer, 2011).

Figure 7. In Civilization VI learners can research the development of human via 'Technology Tree' which unlocks new historically contextualised in-game tools as players progress. Copyright © 2017 2K Games. www.2k.com.

Text: Technology Tree; Pottery; Animal Husbandry; Mining; Sailing; Archeology; etc.

The "cycles of expertise" in games means that learners never stop learning or building on their skills. Games encourage learning from experience. It has been claimed that such experiential learning is associated with deeper learning and is very motivating (Gee, 2007). Learning from video games requires cognitive processes of applying, analysing, synthesizing, and evaluating (Petty, 2016). Upon mastering a skill in a video game, a new cycle of learning that combines what has been learned with teaching new skills begins (Gee, 2013, p. 29). In city-building simulation *Cities: Skylines* players start with access to a limited amount of in-game tools and resources. They must learn to use the basic abilities before they can access advanced ones (see Figure 8). Also, they are repeatedly exposed to instructions and interactions that encourage learning, remembering, and recalling and options that occur more than once and in different contexts, so may make gains in passive language abilities and vocabulary acquisition (Lee, 2008; deHaan, 2005).

Video games present players with an in-context series of skills abilities that are primarily used to accomplish goals (Gee, 2013, p. 33). Skills are learned "as strategies for carrying out meaningful functions that one wants and needs to carry out (Gee, 2013, p. 34)." In games, tasks are often labelled "quests" and necessitate that a series of objectives be met if they are to be completed. Players face a challenge in which key information is delivered interactively via jointly-constructed situations, characters, actions, and practices. The affordances of using skills in such a way is that it encourages learning that is not prescriptive. Instead, the focus is on attempting tasks and language learned can emerge from the process of completing them (Frost, 2008). Video games permit contextual clues and opportunities to apply actions associated with words and phrases (deHaan, 2005) which could lead a language learner to glean pragmatic meaning and knowledge from game-based contexts without explicit explanations (Slabakova, 2010).

In teaching, a "skills as strategies" approach could stimulate cognitive processes of analysis (Erhel & Jamet, 2013) because they require the player to interact with, and evaluate, multiple sources of information in different ways (Squire 2013). As well as being enjoyable, games provide detailed contexts in which immersive learning due to the occurrence of situations that necessitate using specific language and phrases (Belcher, 2004, p. 171). Meanings of words and concepts are presented situationally in games and players carry out activities that make them memorable experiences (Gee, 2013, p. 35). By applying newly learned information in developing strategies when playing video games, learners create a scenario that they can imaginatively recollect. In this way exploration games could be used as task-based learning tools. In *Gone Home* the only objective to uncover the story by interacting with a series of clues in the virtual environment. The player explores an empty family

Figure 8. As players improve and gain understanding of how to use in game tools, Cities Skylines unlocks further content for them to experiment with. Copyright © 2017 Paradox Interactive AB. www.paradoxplaza.com.

home, discovering details about the people who live there through notes, answer-phone messages, postcards, journal entries, music, and photographs (see Figure 9).

Issues Arising From Blending Games Into Language Learning

The application of the game-based learning principles outlined by Gee (2013) appear to demonstrate that video games can have a positive influence on language learning and that in appropriate circumstances they can be used as language learning tools. However, many of the benefits games have on language learning are incidental rather than intended. This problem is compounded by the fact that language learning relies heavily on learners noticing language features in video games. And even assuming that some noticing is taking place, without scaffolding and direction, the transition from noticing to intake may be debatable. Esimaje argues that learners are unlikely to fully understand the meaning of what they notice without support (2003).

In a classroom environment the learners' language learning journey is supported, but if the learner's experience is entirely self-directed, they could have difficulty identifying weaknesses or knowledge about what features of the language they need to improve (Reinders, 2006). Therefore, the guidance of a teacher could ensure the maximisation of language learning from video games (Williamson, 2009, p.30). The role of the teacher would be to provide instructions that emphasise learning objectives ahead of the playful components so that learners put appropriate effort into learning and conscious noticing (Erhel & Jamet, 2013).

Educator perceptions, the value of the content of the game, and learners' interest and engagement with the medium, must all be taken into considered before a video game can be considered a learning tool. Even then, whether educators who are unfamiliar with the technology could be provided with enough support to use it, or if they would even want to, is a problem that persists (Godwin-Jones, 2016, p.14), as do issues concerning the constraints of learning environments, lack of appropriate ICT hardware, software and support and appropriate and pedagogical contexts (Reinders & White, 2009, p.79). As well as determining if games are appropriate in an educational setting, the use of visual media in classrooms requires that factors such as appropriateness for age and ability-level, if the media is comprehensible for language learners, to what extent visuals support dialogue, and whether there is enough informative

Figure 9. In Gone Home players discover a story by interacting with household objects and personal possessions that belong to their in-game family. Copyright © 2013 The Fullbright Company. https://fullbright.company.
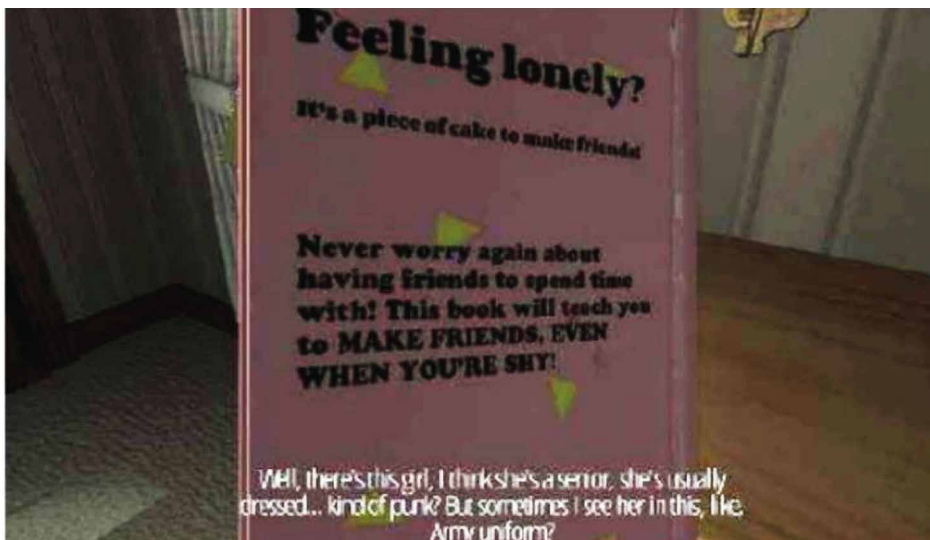
Text: "Well, there's this girl, I think she's a senior, she's usually dressed... kind of punk? But sometimes..."

content to be considered. This could be difficult to do if using a video game as a teaching tool, especially if the teacher is unfamiliar with the game. Ethical constraints and legal requirements (for example the Data Protection Act in Europe) are also a barrier to the integration of video games in language learning classrooms. The solution could be the development of ethically robust 'Serious Games'. However, there is yet to be a large-scale serious video game designed specifically for learning purposes, although some creative teams have developed 'serious games' and some have begun investigating the potential uses of large-scale games such as world-building game, *Minecraft* (Mojang, 2017). Despite these small strides in serious games, as noted by Gee, it is remarkable that many educational games simply fail to make words and concepts clear through in-game experiences (Gee 2013, p. 35).

CONCLUSION

The research conducted in this study has explored numerous examples of learning affordances in a variety of games and observed how these affordances may benefit language learners. The game-based learning principles outlined by Gee (2013) demonstrate that video games can have positive influences on learning. Educators can utilise 'co-design' aspects of video games as part of a wider array of teaching materials that require learner collaboration and independent exploration of topics. The 'customize' accessibility levels afforded by video games could provide interactive language based tasks for learners of all levels and ages. 'Identity' leads to levels of investment that trigger activate autonomous learning habits and facilitates the exploration of cultures and ideas. 'Cycles of expertise' mean that learners consistently develop their skills. And, 'Skills as strategies' show how interactive contexts can assist learners in seeing, hearing, and performing language applicable actions. However, as well as possible benefits, this study has observed potential issues with using video games for learning purposes. Among these issues is that in-game learning opportunities are too varied and too dependent on circumstances to be consistently beneficial. That is not to say that language learning cannot benefit from the language learning affordances found in video games. However, educator perceptions, the value of the content of the game, and learners' interest and engagement with the medium must all be taken into consideration if video games are to be used in language learning. Also, some educators doubt the educational value of video games, so demonstrating that they are about learning, rather than just about playing, is similarly important.

In terms of further research, there is growing agreement that the teaching and learning opportunities found in video games should be further explored if education systems are to reflect the modern-day experiences and interests of learners, encourage the use of skills, and promote successful workplace practices (Williamson, 2009, p. 10). Numerous scholars consider that the learning affordances in games require further examination in consideration of specific types of learning (Godwin-Jones 2016; 2014; Reinhardt & Sykes 2012; Sykes, Reinhardt, & Thorne 2010; deHaan, 2005), and it has also been suggested that there is need for research that contemplates learning aims, limitations of instructional situations, and institutional goals (Godwin-Jones 2016; Turkay et al. 2014; Williamson 2009: 10). Perhaps the most useful follow-up to this study would be to test a language learning video game with a class and collect to data to support the theories established in this research. Work by Thorne and Hellerman on mobile augmented reality (2017) demonstrates that video-game principles can be applied to develop contextually situated interactional practices and provide evidence that the contextualization afforded by games can enhance interaction, illustrating that "artifacts, context, and humans together create particular morphologies of action" (Thorne & Hellerman, p. 729).

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KEY TERMS AND DEFINITIONS

Action Game: A video game that emphasises reflex challenges, hand–eye coordination and reaction-time. Typified by games with running, jumping, and fighting mechanics.

Adventure Game: A video game in which the player explores a fictional world and solves puzzles to allow the story to progress.

Autonomous [Language Learning]: The use of insight and reflection in self-managed learning based upon scaffolding provided by educators or other sources.

Closed Captions: Text displayed on a media-playing screen to provide additional or interpretive information including dialogue and sound effects.

Cognitive Gains: Improvements in conscious mental activities, such as thinking, reasoning, understanding, learning, and remembering

Exploration Game: A video game in which win or lose states are forgone in favour of a narrative-focused experience in which players roam freely and discover elements like books, journals, or clues.

Gameworld: The fictional, created, or replicated world in which a video game is set and in which players perform actions.

Game-Based: Something in, of, or created by, the game.

Gameplay: The features of a video game, such as its story aspects and how it is played, considered as separate from graphics and sounds.

Multiplayer: A game in which input is expected from multiple participants for the duration of a game session.

Non-Player Character: Any video game character not controlled by a player. Usually controlled by artificial intelligence.

Noticing [Hypothesis]: A theory in language learning that proposes that learners acquire language by becoming self-aware of gaps in their second language knowledge.

Offline Game: A video game that does not require connection to the internet or computer network to run or be played.

Online Game: A video game that is partly or mainly played using the Internet or a computer network, often for multiplayer purposes.

Player-Character: Any video game character directly controlled by the player through an input device such as control-pad, keyboard, or motion controls.

Role-Playing Game (RPG): A game in which participants assume the role of a character, and interact in the imaginary world in manner of their own choosing so long as it obeys the gameworld rules.

Scaffolding [in Learning]: The provision of additional contextual support to help learners understand meaning and study independently.

Simulation Game: A video game that is designed to replicate aspects and activities of real life situations for purposes such as entertainment or training.

Single-Player: A game in which input is only expected from one participant for the duration the game experience.

Strategy Game: A game in which players' autonomous decision-making abilities significantly determine outcomes.

Story Mode: The narrative driven portion of a game that provides multiple methods of play, often single-player and offline.

Subtitles: Text displayed on a media-playing screen to provide an additional means of interpreting dialogue.

Task-Based: An activity that requires the participant to use the tools available or given to them to overcome a challenge or complete an objective.

Video Game Genre: The means by which video games are classified and catalogued that is based on how it is interacted with as opposed to visual or narrative differences.

Video Game Player: A person partakes part in playing video games.

Video Game System: TV compatible device capable of playing video games.

Visual Novel: A combination of text and graphical adventure games that deliver story through text and contain some interactive features particularly related to narrative interaction.

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