The role of feedback in foreign language learning through digital role playing games

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Abstract

In recent years, there has been a renewed interest in the use of digital games for purposes other than pure entertainment, including (formal) training and education. This paper examines the cognitive benefits of the genre of digital role-playing games for foreign language learning, with specific attention to the role of focus-on-form approaches and language-directed feedback. Suggestions for research are made, with particular reference to how formal properties and learner perceptions of feedback may mediate learning outcomes as well as gameplay experience.

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1. Introduction

Role-playing games (RPGs) are digital games that strongly emphasize narrative, alternating action with episodes of exploration and dialogue, and with intricate reward mechanisms. The player is inserted as a character in an interactive and fictional story, which unravels as the player accepts tasks (‘quests’), gathers clues, talks to computer-animated characters (‘non-player characters’ or NPCs), and gets rewarded for completing quests. These rewards are hardly ever self-contained, but enable the player to

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engage in new, more challenging quests, for which more developed skills, such as ‘experience’, or collectable items are required. In this way, RPGs create a self-sustaining, highly-motivating and immersive environment, in which language and narrative play a crucial role.

RPGs are related to adventure games, but the latter lack a rigid internal points structure and elaborated feedback mechanisms. In the history of CALL, adventure games have been evaluated and investigated, and even specifically developed for language learning purposes (e.g. Sanders & Sanders, 1995; Hubbard, 2002; Neville et al., 2009).

There are a number of reasons why RPGs have been and should be considered for second and foreign language (L2) instruction. First, RPGs contain a considerable amount of language. In fact, the primacy of language in RPGs requires a lot of reading (and comprehension) in order to play them well – even to the extent that there are claims that the abundance and presentation of text in commercial RPGs (and adventure games) might create cognitive overload for L2 learners (DeHaan, 2005). Still, the genre of RPGs may be exploited by tailoring the design and content to language pedagogy. Second, the gameplay of RPGs provides opportunities for meaningful language learning. If a player fails to understand the message of a piece of scripted text or dialogue, or to produce the appropriate language in a given situation, his or her character may face dire consequences. In other words, RPGs entail a focus on meaning, combined with on the one hand a sense of urgency that is comparable to authentic, out-of-class learning environments, and on the other hand the safety of a space where real-world consequences are diminished. For this reason, they have been associated with functional, task-based and even communicative approaches to language teaching (Baltra, 1990; García-Carbonell et al., 2001). Third, in contrast with adventure games, RPGs contain very complex feedback and reward mechanisms, which may be manipulated in order to focus a learner’s attention on formal properties of the language, to promote ‘noticing’ (Schmidt, 1990), and as such facilitate acquisition. Moreover, key theorists of game-based learning associate feedback and rewarding with the inductive mechanisms that are considered to take place in informal and ‘implicit’ learning (e.g. Prensky, 2001; Gee, 2003; Koster, 2005). This warrants a review of the conceptualization of feedback in second-language acquisition (SLA) research.

2. Corrective feedback in SLA research

Corrective feedback (CF) may be defined as information from any source regarding the learner’s L2 performance in order to stimulate acquisition. Arguably, what has been at the core of SLA theory and research on (corrective) feedback is the distinction between ‘acquisition’ (the gradual and implicit accumulation of L2 competence) and ‘learning’ (the conscious and explicit learning of L2 knowledge) (Krashen, 1981). In latest years, however, a consensus has grown (DeKeyser, 2005) that ‘acquisition’ in Krashen’s terms, whether it be by exposing the learner to (comprehensible) input, (comprehensible) output or interaction in the L2, is also greatly aided by the conscious processes that are generally associated with explicit learning.

The function of CF within primarily communicative and meaning-oriented language teaching approaches is to temporarily focus on formal aspects of the L2 so as to promote noticing. Under the influence of first language acquisition research and communicative foreign language teaching methods, abundant research has been conducted on implicit CF, and particularly on ‘recasts’. Recasts are reformulations of all or part of the learner’s utterance, minus the error (Lyster & Ranta, 1997). They are considered valuable for L2 acquisition because they disrupt the communicative flow only to a minimal extent, and because they provide the learner with positive evidence (examples of correct and appropriate target language use), and potentially also with negative evidence (what is incorrect or inappropriate). The latter benefit, however, is still subject to debate because of the ambiguity of the term (Lyster, 1998). Recently (Long, 2007; Ellis & Sheen, 2006), the realization has grown that it is multi-faceted, that the
various strategies covered have often not been formally described or put into operation, and that generalization of findings is therefore premature. On the other hand, there is tentative support for recasts that are explicit (e.g. through prosodic or typographical enhancements), intensive (repeatedly directed at a constrained number of linguistic errors), simple (involving only few changes in the original utterance), and directed towards phonology and lexis, rather than morphology or syntax. However, recasts are less effective in classroom contexts than in laboratory settings. Finally, research suggests that learner proficiency plays a significant role in the noticing of recasts.

In recent years, a number of reviews and meta-analyses have addressed the effectiveness of various types of CF on L2 development in general, spanning the axes implicit vs. explicit, and reformulation (providing positive evidence) vs. prompt (signals of error without positive evidence). These studies suggest that CF has significant and lasting effects on L2 development, and that explicit CF in the form of metalinguistic prompts tends to be more effective than implicit CF in the form of recasts (Ellis et al., 2006; Russell & Spada, 2006; Mackey & Goo, 2007; Lyster & Saito, 2010).

3. Instructional approaches to L2 gaming and the role of language-directed feedback

From a linguistic-pedagogical perspective, there are different approaches to L2 instruction through digital RPGs, including commercial off-the-shelf games as well as games specifically adapted and/or developed for L2 learning. One approach is to focus exclusively on meaning, both during and before or after playing. This closely resembles the natural situation in which many gamers, die-hard and casual alike, claim to have learnt an L2, i.e. through sheer but continuous exposure to the language in a highly motivating environment. Statements such as “I learnt English entirely by playing Monkey Island” obviously overlook the fact that the game is part of a broader learning environment, but are telling nevertheless. Still, focus only on meaning may lead to fossilization and developmental ceilings (Gass & Selinker, 1994).

A second approach, often taken in educational simulations and task-based language teaching methods, is to focus exclusively on meaning during gameplay, and organize (de-)briefing sessions that raise attention to formal aspects of the L2 before and after playing (Crookall & Oxford, 1990). However, it is possible that (de-)briefing sessions alone do not suffice for enabling noticing of formal L2 aspects during the actual interaction in the game, which may prevent the creation of strong form-meaning mappings in the immediacy of play.

Third, focus-on-form may be realized during the game, in more or less subtle ways, by including ‘mini-game’ remedial exercises, input enhancements, or (corrective) L2-directed feedback in the game (delivered by computer, teacher or peer). In a computer-scripted dialogue, for instance, an NPC may give implicit comments or a recast on linguistic errors. A pioneering game study in the area of Spanish L2 pragmatics found little improvement in learning outcomes, and suggested that feedback design is pivotal (Sykes, 2008). Of course, language-directed feedback delivered in the course of playing may seriously compromise the gaming experience (Purushotma et al., 2008), but this remains to be observed empirically.

A final approach is to exclude form-focus strategies from the actual core of the game and communicative task, and to include them in the broader gaming environment. As an example, game mechanisms could be exploited by having learners and others, such as native speakers, give asynchronous feedback on the language produced by other players in an online RPG. In this scenario, players are stimulated to take part in collaborative feedback practice, because they are rewarded with items or skills that can be used in a meaningful way later on in the game.
4. Conclusion and suggestions for research

If feedback indeed plays a crucial role in the learning that goes on in games, the effectiveness of various types of feedback needs to be experimentally ascertained. However, effectiveness of feedback is not the only aspect that should be considered. What is perhaps even more relevant in the context of games is how learners’ perceptions of feedback mediate the experience of gameplay as well as learning outcomes. As behaviourist theories of learning tended to forget, learners are highly self-regulating individuals, and the impact of feedback may be actively mediated by perception. Learners may accept, modify or reject feedback (Hattie & Timperley, 2007), according to the type of feedback, previous experience, the design of the game, or its socio-cultural surroundings.

As a final note, we argue that it is crucial for research on digital (role-playing) games for L2 learning to think out of the box of traditional SLA CF theory and research. Digital games create opportunities to investigate how technology mediates the language learning process in ways which may have not been conceived of in traditional language learning environments. This takes place at the heart of what CALL could be – and perhaps should be – all about, in order to inform native theory construction, differentiate itself from related disciplines and further establish itself as an academic field (Hubbard, 2008).

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