

Chapter 1

Digital Games and Language Learning: The State of Play

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Introduction

In surveying the landscape of contemporary scholarship on digital language learning it becomes readily apparent that the application of digital games represents an area of growing importance. The editors of this volume have become aware that over the past few years, publication in this area has expanded significantly, a development highlighting the fact that there is renewed interest on the part of researchers in this area of computer-assisted language learning (CALL) research (Reinhardt 2017; Hung et al. 2018; Xu et al. 2019; Peterson et al. 2020). In this context, an edited volume of previously unpublished work that provides a window on state-of-the-art developments in this dynamic field is now timely. In selecting contributions for this volume, the editors had several motivations. As research on the use of digital games and gamification is increasing (Peterson 2017; Reinders 2017; Reinhardt 2018; Dehghanzadeh et al. 2019), one motivation was to provide access to a comprehensive research review that reports on the findings of contemporary work involving digital games conducted from a variety of perspectives and in a range of contexts. Included in the first section of this volume is a review chapter of this nature. A further motivation reflected in the first section of this volume lies in the domain of theory. Acknowledging the importance of theory-led development work in CALL (Huh and Hu 2005) and in particular the linkage between developments in this area and advances in second language acquisition (SLA) research (Chapelle 2009), the editors have included chapters that focus on this area. Included in the first section are chapters that provide theory-informed rationales for the use of

particular digital games. These chapters also explore the theoretical issues raised by the application of digital games in second and foreign language education.

Another motivation that influenced the selection of chapters lay in the desire to provide readers with access to recent cutting-edge learner-based research. In the second section of the book, in order to meet the need identified in the literature for studies that focus on language learners game-based or game-related learning and experiences (Cornillie, Thorne, and Desmet 2012; Godwin-Jones 2014) the editors have selected chapters that investigate the development and application of digital games in a variety of both formal and informal contexts. Contributions in this section investigate the application in learner-based projects of both commercial off-the-shelf (COTS) games and also serious games designed specifically to facilitate language learning. A final factor that is reflected in the third section was the need to provide access to work that investigates the role of the teacher and the pedagogical aspects of the implementation of digital games in language education. In the editor's view, this approach offers the prospect of yielding potentially valuable insights as it provides the advantage of supplying a holistic and balanced perspective on advances in this wide-ranging and rapidly expanding area.

Overview of This Book

The second chapter in this volume examines research relating to the application of gamification and digital games in foreign and second language learning. In order to provide a context for the discussion in the later chapters, this chapter provides an overview of theoretically informed work in this area. In this chapter entitled "*A critical review of research on gamification and second language acquisition*", Silvia Benini and Michael Thomas

provide a comprehensive research review of work conducted over the period 2014-2020. In their review, the above authors show that research in these areas is expanding rapidly with an increasing number of publications reported in the literature. The authors show that research is wide-ranging and has involved a variety of game types, methodologies and contexts. In terms of significant findings, the above researchers' report on positive findings that indicate that the affordances provided by digital games and the use of gamification may enhance affective factors such as learner motivation. However, they also emphasize that empirical research remains limited and that the use of digital games and game elements are not without challenges.

The remaining chapters in the first section of the book deal with theoretical issues. In the third chapter "*Second Language development in the context of massively multiplayer online games: Theoretical perspectives*", Nasser Jabbari observes that a significant amount of contemporary research work on the use of this type of digital game in CALL lacks a substantive base in theories of language learning. In order to provide a robust theory-driven basis for future development work in this area, the author draws on relevant theoretical constructs articulated in interactionist and sociocultural SLA research in order to propose a comprehensive and credible rationale for the use of massively multiplayer online role-playing games in L2 teaching and learning. In the next chapter, "*Not all MMOGS are created equal: A design approach to the study of L2 learning in multiplayer online games*", Jonathon Reinhardt asserts that many of the claims made in the literature regarding the benefits of engaging learners in multiplayer online role-playing games run the risk of being the result of overgeneralizations. In this chapter, the author draws attention to the differences between individual games within this genre and makes the case for evaluating the affordances for learning provided by online role-playing games from an ecological perspective, taking into account the variables of specific game design, context and player behavior. Reinhardt argues

for a design-informed and ecologically influenced approach to the evaluation of L2 learning in online multiplayer games. In the fifth chapter, “*Human linguistics as a framework for analyzing simulation-gaming*”, Douglas W. Coleman identifies some important issues with the evaluation of language learning with a particular game type, simulation games. The author claims that to date, much research on the use of this game type lacks a rigorous formal framework for analysis and that this situation is hampering development in the field. In this chapter, it is asserted that Human Linguistics provides a basis for rigorous future research and development work in this area.

The chapters in the second section of this book move the focus of investigation to studies that report on game development and application in both institutional and out-of-school contexts. In the sixth chapter, “*Playing with digital game pedagogies*” Alex Bacalja and Kate Euphemia Clark report on the use of digital games as texts in two learner-based case studies. The first study involved the use of a digital game in combination with traditional texts as part of a unit of study. The second study explored the use of digital game as a means to facilitate experiential reading. The authors claim based on their findings, that both games provided a valuable learning experience for the participants. In the next chapter, “*The use of avatars in digital role-playing games (RPGs) in computer assisted language learning (CALL)*”, Charly Harbord and Euan Dempster draw on SLA research to provide a rationale for the use of the above game type in language education. The authors identify the most common types of RPG utilized in contemporary research, and review the literature in this area. They further report on a preliminary pilot study that investigates undergraduate EFL learners in-game avatar choice and attitudes. This chapter concludes with a discussion of several areas with potential in future research. In chapter eight entitled, “*Reinforcing international students’ language skills for disaster preparedness: A case study of*

gamification that utilizes augmented reality technology”, Kazuhiro Yonemoto reports on a study conducted in Japan in which gamification was utilized in combination with augmented reality technology in a beginner level Japanese as a foreign language course. The study involved both campus-based and off-campus learning activities. Data analysis from learner feedback and researcher field notes revealed that use of a game and place-based augmented reality activities improved participants understanding of target language vocabulary.

The remaining chapters in this section deal with a somewhat under-researched area in the literature on digital gaming in language learning (Sundqvist, 2019), namely, gaming in informal out-of-school contexts. In chapter nine, *“The relationship between extramural digital gameplay and 21st century skills in the language classroom”*, Daniel J. Mills and Benjamin Thanyawatpokin report on the results of a large-scale survey conducted at two universities Japan that investigated the relationship between participation in out-of-classroom gaming and the development of 21st century skills. Analysis of the participants responses indicated that there was only a low correlation between extramural game play and 21st century skills. However, the data also showed that the majority of learners appear to highly regard digital games as a learning tool. In the final chapter in this section, *“Gaming as a gateway to L2 English learning: A case study of a young L1 Swedish boy”*, Liss Kerstin Sylven presents the findings of a case study that investigated the effects of participation in out-of-school gaming on the language development of a Swedish adolescent. Analysis of multiple data sources including test scores, interviews and audio recordings collecting during this longitudinal research project revealed that the participant made remarkable progress in developing their L2 proficiency through playing digital games over several years. The author further examines the pedagogical implications of the role of digital gaming in enhancing foreign language proficiency.

The chapters in the third section of this volume examine the current state of game-based language learning and set out an agenda for future research and development work. The chapter by James York and Benjamin Thanyawatpokin entitled “*Issues in the current state of teaching languages with games*” provides an examination of the literature on the application of games in language learning and identifies a number of important issues with current work. These authors draw attention to a number of issues relating to terminology and propose new objective-based terms to assist work in this area. In addition, they identify several weaknesses in the current body of research work. Echoing concerns raised in the literature (Peterson 2013) they note that to date, there is an over-emphasis on exploratory studies that do not provide a basis for actual classroom application. The authors propose a future research agenda that focuses on empirical work and that emphasizes the investigation of teacher roles in enhancing game-based language learning.

In the final chapter of this volume, “*Is game-based language learning “Vaporware?”*”, Jonathan deHaan critiques the literature on the use of digital games in language learning. The author argues that going forward, in order for sustained and meaningful progress to be made in the field, researchers and practitioners must work together. Moreover, in a call to arms, the author argues that for game-based language learning to become fully normalized (Chambers and Bax 2006) in language classrooms there is a pressing need to refocus work on pedagogy-first game-based language teaching where the teacher plays a central role in facilitating optimal learning outcomes.

Conclusion

In selecting contributions for this volume, the editors were keenly aware that no single publication can incorporate all significant work in this dynamic and rapidly evolving area of research. Nonetheless, it is the editors hope that the chapters included in this volume reflect both the depth and range of contemporary high-quality scholarship in this increasingly influential field. Looking forward, it is the editors' firm conviction that the work included in this volume will play a valuable role in informing the development of an innovative research agenda on the use of digital games in language education that considers gaming both inside and outside the language classroom.

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