



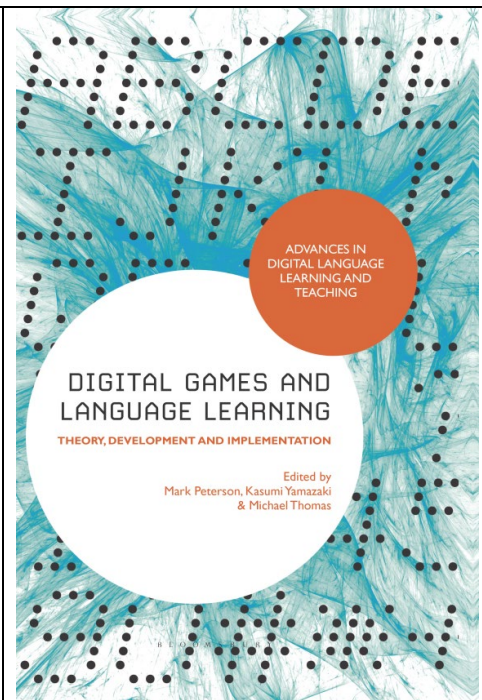
Digital Games and Language Learning

Mark Peterson, Kasumi Yamazaki,
and Michael Thomas
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In view of the growing market of digital games and their popularity among people of all ages not only as a means of entertainment but also of socializing and even earning their life, there is a growing interest into their possible affordances for language learning. The use of digital games in language learning is not a long one. One of the earliest studies carried out in the early 1990s focused on developing simulation prototypes (e.g., Coleman, 1990; Higgins & Morgentern, 1990) and adaptation of digital games into language learning (Meskill, 1990). More recently, meta-analysis studies on digital games were conducted to have a more comprehensive view of the current state of the field (e.g., Dixon et al., 2022; Thompson & von Gillern, 2020). However, it is clear that there is a need for further scholarly discussions and empirical research on this emerging and popular field of study. The book titled *Digital Games and Language Learning: Theory, Development and Implementation* edited by Peterson, Yamazaki and Thomas (2021) is a volume in the series of *Advances in Digital Language Learning and Teaching*. As a timely and comprehensive book, it encompasses important aspects of theory, research, design and application of digital games as an extension of CALL. Highlighting the need for theory-informed research and practices in digital games as an extension of CALL, the editors allocated each of the three sections in the volume to the discussion of important aspects of this field of study: theory and research, development and implementation of digital games in language learning.

Incorporating discussion of theories of SLA and CALL as a foundation for research and pedagogical implications, the book includes chapters presenting research review, empirical research, reports of projects from a wide range of perspectives and locations all

over world thereby providing a broader picture of the state of digital games in language learning and a potential inducement and guideline for further research and pedagogical design and implementation of digital games for formal and extracurricular language education.

The first part of the book (Chapters 2-5) entitled “Theory and Research” includes four chapters discussing theoretical foundations for and research on using digital games in second or foreign language learning. In the second chapter entitled as “A critical review of research on gamification and second language acquisition” the authors, Benini and Thomas, present the current state-of-art in gamification, game design and L2 learning based on a review of empirical and non-empirical research published between 2014-2020 and on a discussion of theoretical foundations of research in this area. The authors highlight an ever-growing research interest into digital games and the value of digital games by underlying their social and affective affordances such as interaction and motivation in L2 learning.

The authors also discuss the role of gamification in SLA as a motivational tool within the framework of ‘flow theory’ in gamification where mastery, full engagement and intrinsic motivation are present. They also draw attention to the fact that inadequately researched concepts of intrinsic and extrinsic motivation as two prominent constructs in ‘self-determination theory’, can have important bearings for gamification research. Through a comprehensive review of game elements, the authors present a pyramid of components, mechanics and dynamics in gamification and an exhaustive list of game elements. The authors also present a brief discussion of theoretical foundations of gamification such as comprehensible input of Krashen, zone of proximal development (ZPD) of Vygotsky, and constructivist approach with references to intercultural and pragmatic competence. The authors finally discuss the benefits and drawbacks of 3DVLEs and point out the need for more rigorous further research to inform theory and practice in this emerging field.

In Chapter 3 titled as “Second language development in the context of massively multiplayer online games: Theoretical perspectives”, Jabbari points out that as a newly emerging area of research, L2 learning in the context of massively multiplayer online games (MMOGs) lacks theoretical foundation, which is essential for defining key terms and concepts and for drawing the boundaries of research, research questions, paradigms, data collection and analysis, and interpretation. With an aim to fill in this gap and provide a guideline for more theory-informed research in MMOGs, the author draws on the theoretical framework of Sociocultural Learning Theory of Vygotsky and the Interaction Hypothesis to explain L2 learning in the context of MMOGs. Emphasizing socio-cultural elements in context of SLA, the chapter also discusses language learning via MMOGs within the framework of Situated Learning Model of Lave and Wenger by drawing on two important constructs of *situated learning* and *communities of practice* in the model. The chapter ends with the discussion of the prominence of theoretical foundations encompassing sociocultural, sociolinguistic and psycholinguistic perspectives for more rigorous research into MMOGs-enhanced L2 learning and teaching. In the next chapter, Reinhardt, who also deals with MMOGs in language learning, claims that research should develop a design-informed approach in addressing MMOGs in L2 learning as not all MMOGs can be suitable for language learning. The author argues that ascertaining specific design elements in games that enhance L2 learning can lead to sounder research and implementations in this emerging field of study.

The fifth and the last chapter of the first part entitled “Human linguistics as a framework for analyzing simulation-gaming”, Coleman argues that human linguistics can help modelling and analyzing simulation-gaming. Indicating the dearth of empirical research

into simulation-gaming as the reason for the lack of an agreed-upon theoretical ground for research into sim-games in learning L2, the author proposes that HL, a theory of how human communicate at individual or social level, can be a means for describing and analyzing sim-games, whose effectiveness is an elusive issue that cannot be evaluated with scientific methods.

The second part of the book, which included Chapters 6 to 10 and entitled as “Development and implementation of digital games in computer-assisted language learning” include chapters on incorporation and implementation of digital games into language learning environments. Chapter 6 entitled “Playing with digital game pedagogies” by Bacalja and Clark presents two case studies, and invites readership to consider integration of games in language teaching and learning contexts as a new type of text in formal language learning settings. The authors argue that although integration of commercially designed digital games can be disruption to the status quo in the classroom, incorporating them in formal educational environments is also possible since they are motivating and engaging. The authors present a discussion of models and frameworks of game in language learning. Based on the first case study the authors discuss how individual teachers’ different approaches to using games across the continuums of free or controlled play, social or solitary play, at-school or at-home play, affect learning. In contrast to the first case study, the second case study focuses on the use of game from the learners’ perspectives. The authors analyze affective reactions of students to the experience of playing a commercially designed open world game. The second case study underscores the role of game as an active participant in the construction of learning and as a learning experience rather than merely being a tool for learning. The authors, who drew on an emerging pedagogy rather than prescribing a certain pedagogical framework for using games in language classrooms, claim that “Those working with digital games in formal learning environment often underestimate the importance of free play and therefore close off the value of emotional learning experiences” (p.131).

In Chapter 7 entitled “The use of avatars in digital role-playing games (RPGs) in computer-assisted language learning (CALL)” authors, Harbord, Dempster and Jayemanne, present a review of the theoretical background and empirical research on RPGs in SLA and the results of a pilot project on the effects of avatar choices of Chinese EFL learners playing a purpose-built RPG. They found that learners tend to judge the real identities of avatars depending on their own honesty in presenting themselves as an avatar. The authors emphasize affective affordances of using avatars in the pilot study and discuss its findings on further research on the use of RPGs in language learning. Chapter 8 entitled “Reinforcing international students’ language skills for disaster preparedness: A case study of gamification that utilizes augmented reality technology” written by Yonemoto focuses on the uses of games which utilizes augmented reality technology. Focusing on the subject of natural disasters, the results of this case study conclude that the use of augmented reality technology in and outside of the classroom helped learners produce more vocabulary items related to natural disasters. Chapter 9 entitled “The relationship between extramural digital gameplay and twenty-first-century skills in the language classroom” by Mills and Thanyawatpokin, presents a study on the relationship between the development of Japanese university students’ twenty-first-century skills and their extramural digital game playing. They reported that although there is a low correlation between game playing and twenty-first-century skills the students perceived playing digital games as a learning tool. In their discussion of the results, the authors argue that as students believe in their effectiveness, games can be effective extramural language learning tools and highlight the need for incorporating and consolidating

extramural learning via in-class education. The last chapter of the second part entitled “Gaming as a gateway to L2 English learning: A case study of a young L1 Swedish boy” by Sylven presents findings of a longitudinal case study of Swedish child, who attained a relatively high level of proficiency English through digital gaming as early as four-years old. Sylven discusses possible pedagogical implications of digital games on adolescent language learning process within framework of such theoretical foundations as input, output and interaction and also draws on current research on the issue in different contexts. Administrating several linguistic measures and interviews, the author reports that the subject outperformed his peers in English and his perceptions about gaming and learning English outside the classroom. The author presents a discussion of the findings within the framework of principles related to affordances of gaming for language learning (Gee, 2007) such as the psychosocial moratorium principle, the transfer principle and the practice principle and ends the chapter by listing several pedagogical implications of the findings together with some suggestions for remodeling early English L2 learning and for further research.

The last part, which included two chapters and entitled as “Towards the future of game-based language learning”, as it names suggests, makes suggestions for future research. In Chapter 11, “Issues in the current state of teaching languages with games”, Thanyawatpokin and York, underscoring the perplexing literature on digital games in language learning, draws a distinction between game-based language learning (GBLL) and game-based language teaching (GBLT) and present a taxonomy of games. The authors also make a discussion of research topics and trends with specific emphasis on meta-analysis, massive multiplayer online games (MMOGs) and commercial off-the-shelf games (COTS) and gamification. Pointing out excessive use of exploratory methods in investigating the issue and confusing terminology in this research field, they propose their own taxonomy of games and ends the chapter with implications for educators and researchers. The last chapter of the book entitled “Is game-based language teaching ‘vaporware’?” by deHaan discusses the question posed in the title of the chapter by asking and answering 14 questions about critical aspects of the field such as theory, practice and research. Critically reviewing previous research, the authors argues that the concept can be ‘vaporware’ or cannot ‘go gold’ unless a meticulous example of incorporation of pedagogy and technology is developed in cooperation and unless practitioner-researchers are dedicated to a shared vision for addressing issues in game-based language teaching.

The book can be an ideal a choice for researchers, practitioners and game developers alike, who want to have a more profound understanding of current state in theory, research and practice of language learning in the context of digital games. The present book, which included critical reviews of research and empirical studies in a variety of setting, age groups and aspects in language learning via digital games, can be regarded as an initial step for developing a common theoretical ground for rigorous research and as an inspiration for further research into this embryonic field of study.

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