



World Conference on Educational Sciences 2009

Young learners' language learning via computer games

Yıldız Turgut^{a*}, Pelin İrgin^a

^a*Eğitim Fakültesi Yenişehir Kampüsü, Mersin Üniversitesi, Mersin 33169, Turkey*

Received October 21, 2008; revised December 14, 2008; accepted January 03, 2009

Abstract

Online computer games show potential not just for engaging and entertaining users, but also in promoting learning. Especially in Turkey children spend long hours playing computer games, which are mostly in English, in internet cafés. This qualitative research based on phenomenological theoretical framework investigates young learners' experiences of language learning while playing computer games in internet cafes. The data was collected through observations and semi-structured interviews and analyzed through phenomenological data analysis steps. Implications put light into integrating computer games to ELT curriculum.

© 2009 Elsevier Ltd. All rights reserved

Keywords: Internet café; computer games; language learning; young learners; entertainment education

1. Introduction

Learning via computer games can be considered as surreal and outrageous. Many people are troubled with the themes that constitute certain games, and concerned with the intensity of involvement and amount of time that youth devote to playing computer games. However, some games can be quite instructive and enlightening. For example, Simon (1996) has noted how we view learning has changed from being able to recall information to being able to find and use information. Some empirical evidence exists that games can be effective tools for enhancing learning and understanding of complex subject matter (Cordova & Lepper, 1996; Ricci, Salas, & Cannon-Bowers, 1996).

Popular discourses and some of the literature (Gilder, 1992; Kelly, 1998; McLuhan, 1964; Negroponete, 1996; Poster, 1995; Rheingold, 1993; Tapscott, 1996, 1998; Toffler, 1980) have been imbued with deterministic assumptions about the impact of technologies on society. Even if there is a feeling that theoretical perspectives have moved on (MacKenzie and Wajcman, 1998), deterministic ideas have persisted especially in discourses and reports on young people's use of the Internet. The obduracy of such ideas has undoubtedly been sustained by young people's image and position in relation to adults. Young people are often considered more future oriented (Rushkoff, 1996), more apt and technologically aware and interested than adults. These characteristics of young people can be explained by their early adoption and adaptation to technology because they are often provided with the resources

Yıldız Turgut.

E-mail address: yildiztr@gmail.com.

and basic training to use computer in their schools. Computer can be an effective tool for enhancing learning even though they pass much time by playing online games. Recently, a movement has been a foot to examine how online games work as pedagogical devices.

2. Online games in ELT

Various technologies can be used to facilitate learning. Using online games has been a much thought about, yet rarely achieved goal. Educational software developers have struggled to present a substantial amount of content; context and feedback without sacrificing the degree of control game players expect (Buckingham & Scanlon, 2003). Although there are several instances of games used in educational settings (Seay, 1997; Kirriemuir, 2002), as well as proponents of using computer games to educate (Prensky, 2002), the question of whether games are instructionally beneficial is far from answered.

Alongside the question of online games' capacity to teach content is the question of whether mass-marketed games may be used by players who want to learn a foreign language. Very little research has specifically targeted language acquisition through games; however, various second language acquisition theories and study results, as well as current language teaching methodologies may support the use of online games in ELT. While recently numerous suggestions have been advanced for enlivening the language learning experience with interactive activities and online collaboration (LeLoup & Ponterio, 2003), much of the potential for the integration of entertainment media with mainstream language learning remains untapped.

Vocabulary

Vocabulary learning is often perceived as boring by learners, especially for those who grew up in the digital age. The internet has opened up a world of possibilities for improving the vocabularies of young learners. By using online games, teachers and parents can ensure that their young learners are prepared for the adventure of reading and writing. Our generation may not have had access to formal vocabulary instruction in our preschool and early elementary years, but vocabulary lessons for today's early learners are as close as the nearest computer.

In playing computer games, young people are making use of vocabulary for their own purposes, in complex and pleasurable ways. Computer games are an important aspect of what Sefton-Green describes as 'a wider ecology of education where schools, home, playtime, the library and museum all play a part' (p.19). They are a valuable site for exploring the ways in which new and older forms of literacy and multimodality combine, changing understandings of what constitutes text and engagement and providing insights into the highly effective learning principles incorporated into games as an essential precondition of commercial success and play. However, as Facer and others point out, much games research, while identifying the power of games and play to generate motivation or 'hard fun' fails to "recognize the social contexts in which games, fun and learning take place. They focus on the characteristics of the activity itself, on design issues, rather than on the player's experience, attitudes and interests"(np).

Pronunciation

Learning another language can be very difficult and stressful, and having to use language in the "real-world" can often be very daunting for easily intimidated students. Role plays and games are used in the language classroom to let students practice language before they must use it in the "real world." Video games are another avenue for "experimentation in a safe 'virtual environment'" (Kirriemuir, 2002). Learners may be hesitant to participate in language classes because of not wanting to make a mistake in front of their peers, but may be more willing to interact with a video game in order to gain valuable linguistic feedback and practice with language before applying their knowledge in the "real world."

As online games are *interactive*, they are able to immediately give valuable linguistic feedback. In *The Sims*, players control characters' actions and interactions by selecting text commands. If, for example, a player confuses "flirt" and "talk," it will become quickly apparent to the player that his/her linguistic competency is lacking and the player will have to alter his/her knowledge of these words. A similar acquisition process occurs by using menus, selecting items, or following instructions in virtual pet, role-playing or action/adventure games. In some games, the player must vocally interact with the game via a microphone and use correct vocabulary, pronunciation or grammar,

as well as speak appropriately in the game's context. If a player's utterance is incorrect, these games prompt the player to alter his/her utterance. This latter type of online game gives a learner numerous chances to improve his/her speaking ability and pronunciation through implicit feedback.

3. Methodology

Theoretical framework of this present study is phenomenology. Phenomenology invites us to “set aside all previous habits of thought, see through and break down the mental barriers which these habits have set along the horizons of our thinking ... to learn to see what stands before our eyes” (Husserl, 1931 p. 43).

In Turkey English is studied at schools as a foreign language. In public schools and colleges, English is taught as a compulsory subject, starting in the elementary grades. Especially in Turkey children spent long hours playing computer games, which are mostly in English, in internet cafés. Many parents are troubled with the themes that constitute certain games, and concerned with the intensity of involvement and amount of time that youth devote to playing computer games. However, they may not know that some games can be quite instructive and enlightening for their children. Through phenomenological theoretical framework, we investigated the computer games as a phenomenon in English language learning. Based on phenomenological (Husserl, 1931) theoretical framework the following research questions guide this present study: 1. What are young learners' experiences of English language learning while playing computer games in internet cafes? 2. How do computer games impact on learners' vocabulary learning?, and 3. How do computer games impact on learners' pronunciation skills?

The internet cafes where we conducted our research were located in Mersin. 10 primary and secondary school students, studying at different schools in Mersin, Turkey, participated to the study. The participants were at the age of 10-14. The data was collected through observations and semi-structured interviews. Participants were observed three times lasting two hours each in the internet cafes while they were playing online games. After each observation, semi-structured interviews (Kvale, 1999) each lasting 30 minutes were conducted with each participant about their awareness in language learning and computer games. During the observations the participants were playing the Knight Online World version, Counter-Strike, Grand Theft Auto: Vice City, Warcraft III: Reign of Chaos, and FIFA 08 according to their preferences.

The data was analyzed through phenomenological data analysis steps (Moustakas, 1994). Using a phenomenological approach horizontalization included delimiting to invariant horizons or meaning units, clustering the invariant constituents into themes, individual textual and individual structural descriptions, composite structural descriptions, and synthesis of textural and structural meanings and essences.

4. Findings and Discussion

The synthesis of textural and structural meanings and essences as a last step of phenomenological data analysis (Moustakas, 1994) lead to three major meanings of young learners' experiences of language learning through the games. These are transfer, motivation and awareness.

Transfer

Some comments, made by young learners, suggest the popularity and potential benefits of online games for vocabulary learning. To learn unknown words, the participants also developed some strategies, such as guessing from the context, looking it up to online dictionary, asking to a friend sitting close by and people who know English.

I sometimes look up the dictionary in internet and sometimes when you play the game two or three times, you learn it and get help from the people near you. As you see them and learn the meaning of words visually, you understand better. (Doğançan)

Young people are often considered more future oriented (Rushkoff, 1996), more apt and technologically aware and interested than adults. These characteristics of young people can be explained by their early adoption and adaptation to technology. In the quotation above, Doğançan transferred his knowledge on the internet (online dictionary) to solve the meaning of unknown words in the game.

You can also understand and think of its meaning and later while you are playing, you understand. (Osman)

The problem with many educational software titles is their non-contextualized practice of the target knowledge. Language educators often make the same mistake, having students do countless mechanical vocabulary or grammar exercises without applying students' linguistic knowledge in conversational practice. This method of language teaching does not produce competent language speakers. The study of language through sports, role-playing and simulation video games is contextualized, allowing the student to acquire language in a natural setting and providing the learner with various situations in which to use acquired language in the future (Gass & Selinker, 2001).

As they see the similar commands and directions written in English every time, the participants had a chance to practice the unknown words transferred in different tasks and steps during the game.

As computer games usually contain the same words, the same words are learned again. If the words are different, you want to learn and wonder its meaning. For example, there are passwords in a few games and there are dialogs. You learn from them what you want to learn. (Muzaffer)

The natural repetition in games allows a language learner to be continuously exposed to the target language and creates more opportunities for acquisition to occur (Gass & Selinker, 2001). Other mass-marketed media, such as movies or books, often do not reuse the same vocabulary or grammar, making acquisition more difficult. Online games' repetition allows a language learner to 'bootstrap;' to use known language's vocabulary or grammar to decode unknown elements through constant exposure.

Motivation

For the participants, understanding the information presented in both written and oral dialogues had importance motivating them to learn unknown words and focusing on characters' speech in the game to win the game.

While they are talking, I am getting information from them [character dialogues as commands] to go on the game so that the game goes on and I win. (Şerefcan)

You do your missions in games and while you are playing Fifa 09, they ask you whether you want to buy that player or not. This affects the game because they look at these subjects when they want to pass the others. (Muzaffer)

Also, for the participants understanding the dialogues and words were important in the real world as well as the virtual world.

I speak with people. I can speak English even though I am not good at grammar. In computer games, you meet someone, and become friend. You ask them where they live, what they do, and what their hobbies are. We become friends. (Oğuzhan)

Too many foreign people visit our school and they have exhibitions. While we are talking, we can understand a few words from their sentences and think of the whole sentences' meaning. (Doğançan)

I also understand when I watch something on TV because sometimes there is not a subtitle and while I am talking to my father, while we are exercising together. (Doğan)

The English words in computer games help me because when my teachers asked, some of my friends do not know so that it becomes useful for me. When the teacher asks, I become the only one who knows. (Şerefcan)

Similar to Escobedo and Bharoava's findings (1991) children showed greater interest in computer games that respond in real time to their interactions. Hence, online games can help to develop collaboration skills.

Awareness

The potential value of computer in early child development has been vigorously debated among parents, teachers, and researchers for decades (National Association for the Education of Young Children [NAEYC], 1996; Goodwin, Goodwin & Garell, 1986; Haugland & Wright, 1997; Scoter, Ellis & Railsack, 2001; Cordes & Miller, 2000; Kemp, 2002). In this present study, the participants indicated that they were aware of the pros and cons of the games:

Computer games are very useful as long as you do not play much. (Doğançan)

As it has negative sides, it has positive sides, too... It is not harmful. It is enjoying but if we stay in internet cafes too much using of everything can be harmful. (Osman)

As adults, we should allow the children to choose and control the activity they want to encourage their development.

5. Implications and Suggestions for Future Research

Computer games have been criticized for quite some time over a whole range of issues. Some people say they are overly violent and encourage violent behavior particularly in children. Others say that they make children hyperactive, unsociable and are bad for their eyes. Some have even attributed falling standards of literacy and a lack of interest in reading on them. Now it seems that this qualitative study on computer games has also promoted language learning, however, young learners should find a health balance between online games and physical activity.

Online games are in complex environments, and very little is known about their instructional effectiveness. Because no empirical research has specifically targeted language learning via computer games, the study is undertaken to explore young learners' experience with online games.

6. Conclusion

In seeking to understand more about the ways in which young learners' out of school learning and experiences around computer games, observing internet cafes can be enlightening for the curriculum using computer technology. It is important to attend not just to the practices on display, but to issues of identity, purpose and social context in order to promote interest, flexibility and expertise. The study of young learners entails the students' discussion and activities, and the ways they engage with each other and the games. In relation to future English learning and technology, the study suggests ways forward in implementing the study and utilization of technology. Young learners' playing online games promotes language learning and especially vocabulary skills. They would be best advised to try to play online games that are useful resources for language learning.

Acknowledgements

We wish to extend our thanks to the students and owners of the internet cafes where this study was carried out.

References

- Buckingham, D. & Scanlon, M. (2003). *Education, Entertainment and Learning in the Home*. Buckingham: Open University Press.
- Cordova, D. I., & Lepper, M. R. (1996). Intrinsic motivation and the process of learning: Beneficial effects of contextualization, personalization, and choice. *Journal of Educational Psychology*, 88, 715-730.
- Gilder, G. (1992). *Life after Television*. New York: Norton.
- Husserl, E. (1931). *Ideas: General Introduction to Pure Phenomenology*. London: George Allan & Unwin.
- Kelly, K. (1998). *New Rules for the New Economy*. London: Fourth Estate
- Kirriemuir, J. (2002). Video Games and Gaming Consoles. The relevance of video games and gaming consoles to the Higher and Further Education learning experience. Available: http://www.jisc.ac.uk/index.cfm?name=techwatch_report_0201
- LeLoup, J. W., & Ponterio, R. (2003). Tele-Collaborative Projects: Monsters.com? *Language Learning & Technology*, 7(2), 6-11. Retrieved October 3, 2003, from <http://llt.msu.edu/vol7num2/net/>
- MacKenzie, D. & Wajcman, J. (eds) (1998). *The Social Shaping of Technology*. Buckingham: Open University Press.
- McLuhan, M. (1964). *Understanding Media: The Extension of Man*. London: Routledge
- Negroponte, N. (1996). *Being Digital*. London: Coronet.
- Poster, M. (1995). *The Second Media Age*. Cambridge: Polity Press.
- Prensky, M. (2002). *Digital Game-based Learning*. New York: McGraw-Hill Trade.
- Rheingold, H. (1993). *Virtual Community*. London: Secker and Warburg.
- Seay, J. (1997). An Educator's Encounter. *Education and Simulation/Gaming and Computers*. Available: <http://www.cofc.edu/~seay/cb/simgames.html>
- Simon, H. A. (1996). Observations on the sciences of science learning. Paper presented at the Committee on Developments in the Science of Learning for the Sciences of Science Learning: An Interdisciplinary Discussion, Carnegie Mellon University, Department of Psychology, Washington, DC.
- Tapscott, D. (1996). *The Digital Economy*. New York: McGraw-Hill.
- Toffler, A. (1980). *The Third Wave*. London: Collins.