

DIGITAL GAMING AND LANGUAGE LEARNING

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ABSTRACT

Recent years have seen a growing interest in the pedagogical benefits of digital games, which have the potential to engage learners and to encourage interaction in the target language. The use of digital games in language education is based on the premise that successful learning is integrated into the sociocultural context of learners' lives and encourages collaboration and lifelong learning, bridging learning within and outside the language classroom. However, the potential of digital games has not been properly investigated from a second language learning and teaching perspective. This paper is an attempt to investigate effectiveness of game-based language learning. It also includes discussion of the most recent developments in online digital games.

Key terms: *interactive learning, socio cultural context, digital learning platform.*

Introduction:

Game-based learning (GBL) can be an effective way in which to motivate students and engage them in active learning experiences. Game based learning involves using games, both digital and tradition, to support and enhance teaching, learning or assessment. It provides a pedagogic approach that supports active and experiential learning, and has the potential to engage and motivate students.

It covers three more or less distinct scenarios:

1. Learning by playing a digital game with or without individual reflection or group discussion.
2. Learning by designing, creating or modifying digital games-generating entertainment or learning experience, and
3. Learning framed by playful interaction with digital media or game components.



The use of games in education has become increasingly popular and been actively advocated by researchers (Gee, 2003, 2007).

Review of related literature:

English classrooms are the natural home for building skills in reading, writing, speaking and listening. Despite this, any classroom has students who talk more than others; write better than others; and feel more comfortable discussing their views. Students identified as low ability may not get extensive discussion time in tracked classes (Applebee et al., 2003). All learners should have equal opportunities to express themselves and develop the aforementioned skills in and out of the classroom. One major finding of the study on digital games in language learning indicates that the social interaction related to playing digital games increases student engagement (Lehnart et al., 2008). This result has implications for English classrooms as gamers can post information on gaming Web sites and discussion boards, and gamers who do so are more likely to stay informed about current events and go online to get information about politics or current events (Lehnart et al., 2008).

Digital games also can foster positive group process and decision-making strategies. Digital learning games differ from games of entertainment and games designed for training purposes. They are intended to target the acquisition of knowledge as its own end and foster understanding within an academic content area (Klopfer, Osterweil, & Salen, 2009).

Game research now provides solid evidence that students learn important content, differing perspectives, and vital 21st century skills from playing digital games (Thai, Lowenstein, Ching, Rejeskil, 2009). Partnership 21's (2007) framework highlights the importance of developing students' critical thinking and technology skills. Gaming is one strategy that can help teachers and their students meet these goals. Teenagers are a powerful demographic group highly effective at influencing their families' consumer decisions (Kantrowitz & Wingert, 1999; Montgomery, 2007). With guided game-based lessons, students can examine how media advertising aims to influence their buying decisions. Games also have the potential to promote team work and communication skills. For example, language learning games help students acquire language in comfortable communication situations. Using a commercial game, The Sims, with supplementary materials has helped English as Second Language (ESL) students learn vocabulary (Rannali, 2007).

Noted by a number of researchers and parent groups, education is the best tool for keeping students safe while online (Berkman Center, 2008). Students engage in social experiences, having the opportunity to witness both prosocial and antisocial behavior of others in gaming situations, which is important to their growth and development as social beings. Games are often played in a virtual space occupied by others and as such, gamers control their characters and make choices about how to act and what to say through their character. In one study



(Lehnart et al., 2008), the majority of teens noted seeing or hearing antisocial remarks while playing, yet they also report witnessing far more prosocial behavior in players in terms of their helpfulness toward others. Self-policing of virtual space is an activity reported by 75 percent of the respondents who indicated they witnessed other players responding to aggressors by asking them to stop their antisocial tactics. These actions indicate that gamers are able to discern between good and bad social behavior in meaningful ways as well as fine tuning their analytical skills. In this venue, students have the opportunity to self-advocate as well as advocate for the rights of others in the promotion of civility. Through game contexts, students are encouraged to reflect on their own awareness, actions, and perceptions related to the seeds of discrimination. With the proliferation of cyber bullying cases in our society, this issue of public concern is important, and gaming is one tool to help students as well as teachers and families.

Studies on student learning preferences

Numerous studies report wide use of computer game play among today's youth. The Pew Internet & American Life Project states that 97 percent of American teens - ages 12-17 – play computer, web, console, or mobile games. Teens are also playing these games with relative frequency and duration. Nearly one-third (31 percent) of teen gamers play games every day, and another one in five (21 percent) play games three to five days a week (Lehnart et al., 2008). Similar results were reported by the Kaiser Family Foundation's study, Generation M:

Media in the Lives of 8-18 Year-olds. This study examined media use among a nationally representative sample of more than 2,000 3rd through 12th graders. Findings revealed that children and teens devote increasing time to "new media" use [computers, the Internet, and video games] (Roberts, Foehr, & Rideout, 2005). Project Tomorrow: Speak Up (2008) surveyed over 351,000 K-12 students, teachers, parents and administrators and found that all grade levels played computer-based educational games while in school with greatest game use (50 percent) found in elementary grades (K-2). Online games and virtual reality environments are also used by students to collaborate outside of school. Elementary students (3rd–5th) report the highest use of online games (54 percent) and virtual reality environments (38 percent) compared with older students. Middle school and high school student respondents play online games (34 percent) and participate in virtual reality environments, like Second Life (15 percent).

The current learning environment that students reside in is one characterized by "multitasking, visual orientation, immediate gratification, and parallel processing" (Chen, 2005, P1). As such, current findings suggest that today's learners of all types indicate a preference for active learning, further specified as learning by doing through the use of interactive lessons, friendly competition, and trial and error (Borrenson-Caruso & Salaway, 2007; Chen, 2005; Davis, 1999; Heyboer, 2006; Krantowitz & Wingert, 1999; Oblinger,

2003; Project Tomorrow: SpeakUp, 2008; Roberts, Foehr, & Rideout, 2005). The use of train and error is often referred to in the literature as an instructional practice that establishes "evaluation-free zones" (Elbow, 1993,p.205) in which students can feel free to make mistakes that don't count against them and therefore, have wide appeal.

The most recent studies indicate that playing action video games on a regular basis can alter a player's attention skills in terms of increased perception, attention, and cognition. Gamers have better focus and better visually selective attention than non-gamers. Action games push the speed of learning (Bavelier as cited in Stansbury, 2010). As online educational games continue to be popular among the teen set, schools are interested in using them for learning. In schools of education, it is imperative that teacher educators lead the way.

Objectives of the study

Digital Game is the most emerging area of learning for native speakers of English language. By considering this, it was important to perform a research work to find out the suitability of digital games in language classes of non native speakers of English. It was also meant to find out the suitability of digital games in local context.

Research Methodology:

To explore the education value of digital games in language learning authoring, qualitative method was used. Data was collected through Individual interviews, observations; finally completed games were used to understand the context around.

This research project was carried out on total 30 participants (15 girls and 15 boys) from Gujarat Power Engineering and Research Institute, Mehsana. They were the students of 1st year degree engineering college. The students belonged to the urban and rural areas of north Gujarat region and they all were computer literate with sufficient knowledge of internet surfing.

In this study, the researcher first introduced this new learning method to all the participants, and asked them to play selected digital games for 12 weeks (one hour each week). The researcher then further investigated their perceptions toward using digital games for language learning.

During each session, the researcher was present. The researcher moved among the small groups in the language lab during the process of learning through digital games and helping the students where necessary. It was followed by questions and feedback from the class.

Ethics:

The students and parents were informed that this activity was to be used as a case and the outcome of the investigation would be published on our college's virtual learning platform-moodle with access available to other staff, the students and their parents. Permission letters had been prepared by the college office regarding the use of students' photos, videos and work on the college websites.

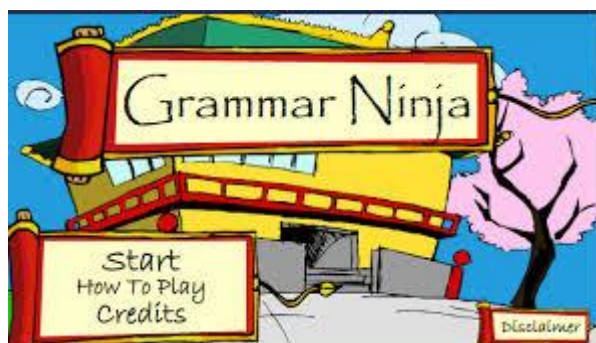
Selection of games for the students

Before carrying out this plan, it was important to find digital games suitable for language learning. Although there are some web-based language games available, many of these games purely test players' specific linguistic knowledge (e.g word puzzles, hangman) and are not entertaining enough. There are also many interesting digital games available, but these games either have few opportunities for language learning or use language that is too difficult for language learners to understand. After considering various possible types of video games, we decided to select the following digital games which possess the potential for both developing communicative fluency and increasing learners' learning motivation.

The **Kinder site** has 1,000s of links to the best games, songs and stories for young children and language learners. It's selected by the European Community, Directorate-General for Education and Culture for 14 projects in education. The purpose of building this site is to use technology and games in learning.

Smarty Games features games for developing reading skills. The reading section has two alphabet games and many animated stories.

Grammar Ninja is a fun game for students to play as they develop a working knowledge of the parts of speech. Grammar Ninja has three levels for students to work through.



The **Grammar Practice Park** produced by Harcourt School Publishers provides 12 games for students.



From **MacMillan Dictionary** – Spin the wheel to test your knowledge of irregular verb forms



Data collection

The data collection was administered at different levels. Firstly, unstructured observations were conducted where the student’s activities were carried out. Secondly, semi structured group interviews with the students were carried out individually to allow them to talk about their experiences regarding learning language through digital games. The data collected was analyzed using qualitative method to conceptualize the overall data.

Research findings:

Interview

All the students that took part in the project reported that they had enjoyed learning language through games. Their answers as a reason included; something new, fun, facing challenges as a player, opportunity to do many things. One student said she did enjoy the experience, but she was not happy that she hasn't finished her game yet.

The students reported that they had many challenges while they were playing the games. They reported having difficulty in understand native speakers pronunciation, slow internet connection, inadequate knowledge of rules and regulations of the game.

Observational data:

Field notes from the observation of the students have also shown some similar patterns to their explanations during interviews.

Collaboration: Working with a partner
Walking around (helping others)
Making suggestions
Asking for help

Communication: Talking (what went wrong)
Making suggestions
Asking questions
Telling what they liked (about the games)
Playing games
Discussing

Critical thinking: Rules and actions (understand how actions were built in games)
Reflecting (on their work and others)
Evaluating (their work and others)
Improving (their work through self-reflection)

Language skills: Learn different language skills in interactive way
Develop unique interest in learning foreign language
Remarkable improvement was observed after learning language through digital games.

Summary of key points and concluding remarks:

Possibilities of using digital games in language teaching and learning: The digital games can be a convenient self-access learning tool. Digital games can help to add diversity and fun to language learning. However, there are some concerns and issues while considering the use of games in language education.

Let me explain some of these briefly. There are few video games available for second language learning. Most of the video games in the market are designed for English native speakers, and this makes the language in many commercial games difficult for non-native speakers. For ESL/EFL learners, the needs for video game might be also different from that of native speakers.

Implementation of game-based learning: Game-based language learning would require financial support from schools and colleges. It is to be noted that that most of the schools and colleges in Gujarat are not equipped with up-to-date software to support gaming in the current educational settings.

Teaching and Learning strategies:

Digital games are new to most of the language teachers in Gujarat, and thus require careful planning and great effort to implement this idea in traditional education settings. They have pointed out the difficulties in integrating games with exiting curriculums and expressed concerns over the role of teachers in gaming sessions and the need for formal evaluation after gaming. If teachers do not provide any supplementary material (e.g worksheets) when students play digital games, what will the role of teachers be? Will teachers become a supporter/ facilitator? If so, how can teachers shift their roles in the currently instructor-centered learning environment in Gujarat? Do we need formal evaluation after students complete a certain game? If yes, what would be the appropriate ways of assessing students' learning gains? These important questions should be discussed further if we decide to promote game-based language learning .

Learning gains made in gaming:

Some students might not be able to focus on both gaming and language learning. Students might focus more on gaming and not gain much linguistic knowledge. At the current stage, **few studies proved that gaming is better than the traditional ways of language learning.** It is likely that the gaming group will not perform as well as those who receive traditional instruction. What would be the justification if the learning gains are not better? **How do we better use gaming to facilitate language learning?**

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