

Digital Technologies and Young Learners: Insights from a Case Study

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Abstract

The article presents the results of a case study of a successful young EFL learner. Starting from the theoretical tenets of the complexity theory, the study has explored the learner's engagement with the English language on a daily basis. Observations, audio recordings and interviews were taken over a six month period.

The first part of the article analyzes strategies employed by the learner, and multi-mediated ways he has resorted to in interacting with various sign systems, such as cartoons, computer games, visited websites, magazines and trading cards. After that, the report outlines grammatical and vocabulary gains attributed to the learner's extracurricular engagement with English. Gains are established by comparing the learner's oral production with the input provided by the textbook used in regular school. The analysis has shown that most substantial improvements have been made in the areas of lexical and pragmatic competence.

These results raise interesting issues related to the use of technology in the context of foreign language learning. In the concluding part, the presenter explores how engagement strategies in the Information and Communication Technology rich environment can inform pedagogically grounded instructional design.

1. Introduction

In the past two decades, governments across the world have introduced education reforms with an aim of providing the young generation with skills and competences necessary for the 21st century. There has been much debate as to what these skills may amount to; however, everybody seems to be in agreement that they include English proficiency and computer literacy. As a result, Ministries of Education in various parts of the world have lowered the onset age of compulsory English education. On their part, both language teachers and researchers have started exploring how to make the best use of the global presence of English and employ modern technologies to support language learning both in the classroom and beyond it.

There is no doubt that digital technology has considerably altered the ecology of language learning, providing not only increased exposure to English, but also opportunities for participation in different virtual communities, or, in other words, a diverse range of new affordances [1]. The influence of the contemporary media and cyber worlds on learners of English has been the subject of vibrant research. Sufficient evidence has been gathered to show that ICT has the potential to be a powerful pedagogical tool, and, if employed properly, can support both language and literacy development [2]. Also, it has been established that sustained engagement with digital media in English can significantly enhance motivation [3], and that uses of various media types can exert a positive impact on certain aspect of general language proficiency [4]. However, most research studies on technology and language learning have focused on adult learners [5]. Given the scope of early language learning programmes, there is a pressing need to explore how technology can be implemented to aid digital natives and their language learning enterprise. This paper intends to fill part of this void by presenting findings from a

case study involving a young learner and his engagement with digital technologies on a daily basis over the period of six months.

2. This case study

The research described in this article constitutes the first step in a longitudinal case study. The study is informed by an ecological perspective of learning proposed by van Lier, which seeks to explain the process of language learning by looking at relations between the active learner in his or her environment, and the verbal and nonverbal interactions in which he or she chooses to participate. In light of this framework, the unit of analysis is the active learner and the activity itself [6]. The central goal of the study is instrumental, i.e. providing insight into out-of-school learning through engagement with multimedia. For the purposes of this paper, the data were analysed with the intention to address the following questions:

- What is the effect of the learner's engagement with digital technologies in English?
- What activities or types of engagement might be beneficial for language learning?

2.1 Participant and data

As previously stated, the study followed a boy, a native speaker of Serbian, aged eleven at the time of the study, from October 2008 to April 2009 with the aim of registering and analysing his out-of-school usage of digital media. The boy was selected for two reasons: a) because his case can be claimed to be a good illustration of outcomes of informal, out-of-school learning: he started studying English in a private language school at the age of four, and did not have it as a subject in regular school (his school language being French); b) he is also a 'convenience sample' – a nephew of the researcher. This family environment enabled me to follow him closely and collect data from various sources to allow for triangulation. The first set of data includes observations and field notes in which I made an inventory of his engagement with multimedia with regard to types of engagement (watching cable TV, using the internet, playing computer games, etc.) and content – what he watched, read or played with. Second, oral samples, recordings of his spontaneous speech, were collected once in two weeks. These samples vary in length from 20 to 40 minutes. In these interviews, he was asked to talk in English about the television shows and cartoons that he had watched the previous week, the computer games that he had played, and share interesting or amusing facts he had found on the Internet. Also, he was encouraged to comment on conventional themes customarily encountered in course books for school-aged children. Collecting these samples was at times challenging, because the boy was occasionally reluctant to talk. On three occasions, he was invited to reflect on his learning of English. These interviews were conducted in Serbian. Third, at the end of the research he did a mock test based on the Cambridge PET for school children examination (B1 level of the CEFR). He was also tested on the knowledge of 570 words from the Academic Word List [7]. His spoken production was analysed in terms of discourse analysis and compared with the language material contained in his course books in order to ascertain what kind of impact his engagement with multimedia may have had on his ability to use English.

2.2 Results

After the data collection was completed, observations and field notes were reviewed multiple times. The following patterns were identified:

- Engagement with the same content or heroes through multiple technologies. For a shorter period of time, he would become engrossed in one fictional character, superhero or TV show (e.g. Naruto, or World Wrestling Entertainment) and then he would seek opportunities to watch

it by using different technologies: cable television, the internet, you tube, playing on line games involving the very same character/s, collecting trading cards, reading comic books, etc. Occasionally, he would access the same content in his mother tongue, Serbian.

- At times, he would talk to his friends about his heroes, either assuming the role of an informant (sharing with them what he had seen), asking them to retell the episodes he had not watched, or simply chatting with them about his favourite scenes, or repeating verbatim dialogues or lines that for some reason caught his attention.

At the end of the research, he was given a mock test. The test results showed that at the age of eleven he reached B1 level of the Common European Framework. These results should be taken with caution, for they do not clearly indicate what it is that he can do in English, but are indicative of his achievement. The following excerpt is illustrative of his ability to use English:

Excerpt 1

- They like ... A sadistic group called teachers found a way ...a legal way to torture little kids you know ..and they ... they ...they created the schools.
- They created ...?
- They created schools where you have to learn and then they like to yell at you ... and they say like 'we want all to have great marks' but they just say that so you couldn't sue them and they are like ... they don't tell you you are an idiot .. they like to yell and give bad marks to little kids and make them learn and make them do stupid projects , and I think they should put normal people in school and that they shouldn't be grading... grades .. there should be like smiley faces ...

The excerpt shows that he is able to use pretty sophisticated and idiomatic language fluently and accurately to express his point of view and feelings about the matter of high relevance to him.

What learning gains can be attributed to his engagement with digital multimedia technologies? This question cannot be answered on the basis of the results from a single case study. Also, it is difficult to reach firm conclusions without taking into consideration his English classes. However, it is highly likely that the expressions and structures present in his output and absent from his English course books represent learning gains resulting from his engagement with digital technologies. They include:

- Colloquial expressions: 'it usually *stresses them out*' ; people will start *hanging out with you*; 'Dexter was *grounded*'; 'he *pulls pranks*'.
- Interest related words, such as those related to combat ('reinforcement', 'two-handed sword') sport ('preliminary round', 'draft'), or those invested with personal relevance ('detention', 'grounded', 'Why do I have to wear retainers, not braces?')
- Academic vocabulary ('gender' – that something you need to fill out when you subscribe to you tube'; 'your subscription is not valid')
- Spoken discourse markers: 'y' know' ;'stuff like that'; 'like..'; 'stuff'; 'kind of'.

Of special value are moments when he managed to remember and articulate in English how he learned something. The following two excerpts illustrate this:

Excerpt 2

- There was a club ... you know ... well .. I heard it first in Calvin and Hobbes and it's like their club is called 'GROSS' Get rid of slimy girls – get it? – Get- Rid-Of ... At first I didn't understand and I kept reading and finally .. I saw it .. well in the text and realized what it means ... and I learned the word 'gross'.

Excerpt 3

- I also heard the first time the word slimy in Calvin and Hobbes ... because Calvin did some ... things and ... there was slime all over the ... well... the snail's slime ... you know ... all over

the house ... and that's how I learned what 'slime' means, and slimy is an adjective of ... so I understand ...

He was also able to use complex grammatical structures in spontaneous speech and produce syntactically complex utterances:

Excerpt 4

- What's the most interesting land?
- I don't know because I haven't been there and I can't tell ..
- So far .. of those levels that you've been to ..
- I don't know
- You don't know?
- Yes ... And if I told you ... you wouldn't understand because you don't know anything about it
- Why don't you explain?
- Well, it's too complicated to explain about the lands, you must play WoW and you don't play WoW, so I can't explain

2.3 Discussion

How can these results be interpreted? To what extent did his engagement with a range of digital media propel his learning trajectory? The obtained data do not allow us to ascribe his success with English solely to the beneficial impact of modern technology. However, they do allow us to conclude that digital media offered the following affordances which were conducive to language learning:

- Engaging content that the learner could choose which on its part led to increased motivation.
- Massive exposure to authentic language. The circumstances did not allow to measure his daily engagement with the digital media. However, a very conservative estimate clearly illustrates the point:

Exposure at school	Exposure through technology
<p>2 x 45min x 32 weeks = 48 hours 48 x 8 years = 384 hours</p>	<p>2 hours x 300 days = 600 hours</p>

Figure 1

If the boy spent two hours a day pursuing his favourite past time activities with the support of the digital media, and if he indulged in it every single day, the resulting number of contact hours in a year – 600 – considerably exceeds the contact time allotted to many learners by educational authorities (two 45-minute periods per week) for the duration of the entire primary schooling.

- Engagement with multiple media, making it possible for him to access the same or similar content in various ways, as many times as he deemed necessary, and, most importantly, to process the same content through various media.

Repetative language in cartoons aligned with multiple visual clues and his knowledge of the genre eased comprehension, supported his guessing, and ultimately propelled incidental and implicit learning.



3. Conclusion

In this paper, I have focused on describing and theorizing the out-of-class engagement with digital technologies of a young learner of English. The present study has supported previous investigations suggesting that digital technologies offer plenty of opportunities for meaningful action and interaction. Technologies have brought English to everyone's doorstep and to a considerable extent blurred the distinction between ESL and EFL contexts. The study has shown that they have the potential to increase exposure to English and thus neutralize a negative factor standing in the way of successful learning. Also, the study has corroborated findings that the engagement with a range of digital technologies has the potential to trigger off incidental learning. Finally, the paper has drawn attention to the importance of further research on how learners interact with different technologies.

References

- [1] Van Lier, L. (2004). *The Ecology and Semiotics of Language Learning. A Sociocultural Perspective*. Boston: Kluwer Academic Publishers.
- [2] Kern, R. (2006). Perspectives on Technology in Learning and Teaching Languages. *TESOL Quarterly* Vol. 40(1), 183-210.
- [3] Csizér, K. & Kormos, J. (2008). The Relationship of Inter-Cultural Contact and Language Learning Motivation among Hungarian Students of English and German. *Journal of Multilingual and Multicultural Development*, 29:1, 30-48.
- [4] Berns, M., de Bot, K & Hasebrink, U. (Eds.) (2007). *In the Presence of English. Media and European Youth*. New York: Springer.
- [5] Zhao, Y., Lai. C. (2008) Technology and Second Language Learning: Promises and Problems. In: L. Parker (Ed.) *Technology-mediated Learning Environments for Young English Learners* (pp.167-206). New York: Lawrence Erlbaum Associates.
- [6] Van Lier, L. (2000) From Input to Affordance: Social-interactive Learning from an Ecological Perspective. In: J.P. Lantolf (Ed.) *Sociocultural theory and second language learning: Recent Advances* (pp. 245-259). Oxford: Oxford University Press.
- [7] Coxhead, A. (2000). A New Academic Word List. *TESOL Quarterly*, Vol. 34(2), 213-238.