Critically Evaluating Prensky in a Language Learning Context: The "Digital Natives/Immigrants Debate" and its Implications for CALL

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Abstract. More than 10 years have passed since the first introduction of the term "digital natives" in Prensky's (2001a, 2001b) two seminal articles. Prensky argues that students today, having grown up in the Digital Age, learn differently from their predecessors, or "digital immigrants". As such, the pedagogical tools and methods used to educate the Natives are outdated. Consequently, many educational professionals became convinced that the ways in which today's students think and learn have been qualitatively changed by their use of information and communication technology (ICT). Indeed, the analogy introduced by Prensky is very appealing, however, no significant empirical evidence exists to support this conjecture and neither facts nor evidence tested in everyday practice have been provided. This paper aims to critically examine the underlying "digital native" theory by reviewing some recent studies questioning the existence of digital natives and presenting some of the current findings from a major case study. The study involves Irish secondary school students and their approach and use of new technologies for language learning. By monitoring and interviewing the students and their teachers, it is intended to provide evidence and information to reflect on some key topics such as the use of ICT for language learning during and outside the class, the analysis of students' skills (as putative digital natives) within language learning, and the attitude of teachers and tutors toward technologies. Overall, it is intended to examine if the current evidence resulting from this study validates Prensky's digital native theory.

Keywords: digital natives, digital immigrants, ICT, education, language learning.

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1. Introduction

In 2001, the terms digital natives and digital immigrants were brought to our attention by Marc Prensky (2001a, 2001b). Digital natives refer to people born in the Digital Era; also called the "iGeneration", described as having been born with "digital DNA" (Zur & Zur, 2011). In contrast, digital immigrants relate to those who grew up in a pre-computer world. According to Prensky (2001a, 2001b), in the most general terms, digital natives speak and breathe the language of computers and the culture of the web in which they were born. On the contrary, digital immigrants learn to adapt to a new digital environment, dealing with technology not as naturally as those who grew up with it.

While Prensky (2009) has started to move away from the digital natives/immigrants distinction, the terms have become highly popular, appearing regularly in articles, blog posts, columns and books mostly in general (Bennett, Maton, & Kervin, 2008) and higher education (Jones & Shao, 2011) contexts.

Many of the arguments about the technological skills, educational preferences and approaches of the Net Generation students have been based on conjectures and assumptions (Bennett, Maton, & Kervin, 2008), showing a lack of empirical research. The same can be said about the so-called digital immigrants. These terms became part of our "common sense" without having been much explored in their true nature and everyday practice. Furthermore, there have been very few comparisons on students' and teachers' perceptions and use of technology (Waycott, Bennett, Kennedy, Dalgarno, & Gray, 2010), especially in secondary level institutions.

Research shows that there are many variables that go into creating the stereotypical digital native. The location, for example, seems to be a very important factor. In the US there is a different level of web technology and computer usage among the same demographic of digital natives in Australia (Kennedy, Judd, Dalgarno, & Waycott, 2010; Margaryan, Littlejohn, & Vojt, 2011) and those in the UK (Stoerger, 2009). In South Africa, as well, only 26% of the population might be described as digital natives (Brown & Czerniewicz, 2010). Broos and Roe (2006) indicate that socioeconomic factors as well as race, gender and educational background play an important role in how and how much people use technology. Finally, the access to technology and the utilisation of it in both quality and quantity should be something to take into great consideration.

The qualitative research introduced in this paper aims to investigate the student and teacher perspective on the use of ICT both as an everyday tool and as a

language learning and teaching tool in a secondary level education environment. By examining the perspective of students and teachers in parallel it is possible to evaluate the evidence of a digital native/immigrant divide. Moreover, this study aims to gain a better understanding of the role technology plays in supporting learning in general and language learning in particular, providing an insight into what students and teachers perceive to be the benefits and/or limitations of using technology in their educational experience.

2.   Method

The study reported in this paper is part of an on-going PhD project. The research employed a mixed-method approach (Creswell & Clark, 2007), conducting in-depth qualitative interviews alongside surveys and classroom observations. This large case study was conducted in two secondary schools both located in the Munster region, Republic of Ireland. The first is a mixed community school (School A), which is particularly orientated towards ICT and an overall commitment to innovation. The majority of students here are equipped with notebooks or tablet computers as are all of the teachers. The second school is a Catholic female school (School B). Here the environment and the teaching reflect a more traditional book-based approach, with small class sizes, a close teacher-student relationship and a limited access to one computer lab for all classes. The participants of the study were 2nd, 3rd and 5th year students and their Italian and Irish language teachers. The data elicitation phase lasted 18 weeks and started by asking the participants to complete pre-interview questionnaires to discover their perceptions and uses of technologies. During the 12th-15th week of the data collection phase, semi-structured and focus-group interviews were held to investigate the students' and teachers' use and access to technology particularly in relation to Irish and Italian language learning and teaching. In this paper we will introduce some of the data collected in the two schools, presenting selected quotations and appropriate analysis in order to address several of our noted research concerns.

3.   Results and discussion

The first main question introduced to the students by both the questionnaires and the interviews was respectively "*Do you own any piece of technology?*" and "*Do you have access to any of the following piece of technology: laptop, computer, mobile phone? If yes, how often do you use it/them?*". The response was unanimous. All students in both schools owned a mobile phone and a laptop (shared in some cases) and they were using these tools on a regular daily basis.

The second question addressed by the questionnaire to both teachers and students referred to the importance of ICT for language learning and teaching and here the responses varied:

> "Not vital. I think you need to be taught how to speak a language. You can't learn from being on a computer" (2nd year student, School B).

> "It isn't because there is one computer room for the whole school and we rarely use it" (2nd year student, School B).

> "Not to me specifically but some teachers rely on it for teaching methods" (Female 5th year student, School A).

Students in both schools are reporting that technology is not essential to learning but recognise that some tutors depend on it. Echoing this sentiment, some tutors agreed, whereas older teachers disagreed:

> "Very important. It is the conduit through which I can reach the students" (Male Irish Language Teacher, School A).

> "I do not make great use of ICT in my classes. I am teaching for over 25 years and tend to fall back to traditional teaching methods. Occasionally I use ICT. Lack of resources is a definite obstacle" (Female Irish Teacher, School B).

The teachers were interviewed on the digital natives/immigrants divide and, in this respect, they were asked if today's teachers and students recognise this concept. Some of their answers reveal deep similarities to those of their students:

> "I'm not one for tags, it's unfair. You are what you are. Digital native and immigrants makes no sense, you're not labeled because of your date of birth. There are many people who are engaging technology and they have become literally dependent on it. Many people are just not interested in technology. They [students] have not been trained. My own daughter she was born with the computer but that doesn't necessarily mean that you assume all this automatically just because you're born next to a computer. That doesn't necessarily mean that you understand it" (Female Italian Language Teacher, School B).

On digital immigrants:

"Certainly it is changing because newly qualified teachers are not immigrating towards it [technology], they're there really. But certainly we still have the older teachers in teaching struggling, either avoiding it or catching up or learning like myself" (Male Irish Language Teacher, School B).

On digital natives:

"In my opinion it's just a trendy name and I hear this a lot; if you want to put a title on it, well they are digital natives because they are born with it, it is in their environment, they are using the technology but the technology is using them as well; it is not the case for them to be productively using the technology or choosing and controlling the technology that, to me, would be a digital native, whereas a lot of people are just passive" (Male Irish Language Teacher, School B).

4.   Conclusions

The initial findings of this on-going research highlight that the notion of students and teachers facing a digital divide is not as simple as Prensky (2001a, 2001b) has argued. In everyday life all participants use many of the same technologies (mobile phone, tablets, Web 2.0, etc.), but the types of activities they are undertaking and the concerns they have are very different. This became clearer when approaching the educational environment issue. For some students the idea of using technologies for language acquisition was stimulating yet not essential.

All teachers had a positive attitude towards ICT as a pedagogic method, yet there was a reported reliance on ICT from student and teacher groups. In one school, there remains a very strong traditional book-based and teacher centred approach which does not imply a negative attitude towards ICT inclusion. Access to ICT appears to be a greater concern in both schools.

We argue that the digital native learner sees these new generic tools as part of their realities. Yet, when it comes to their educational use, many questions remain unanswered: are educational standards rising, where is the "added value" in this normality and do we have better language learners?

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