Research Article

CLIL & INFORMAL DIGITAL EDUCATION: LEARNING CONTENTS AND LANGUAGE THROUGH STREAMING PLATFORMS

Linguistics

Natacha Rita Díaz Luis | **University of La Laguna. Spain.**

Abstract

This research concentrates on the importance that digital technologies and their use in informal contexts in the process of learning of English as a communication vehicle and non-linguistic disciplines. This study aims to analyze this spontaneous learning produced by platforms usually utilized by pupils, i.e., to examine the impact that online platforms produce among students regarding the learning of the foreign language concurrently with content learning. Thus, teenagers from 12 to 16 years old who are currently studying Secondary Education have been selected. These students belong to the Content and Language Integrated Learning (CLIL) programme. The policy instrument employed was a survey in which pupils shall reflect on how these mediums have contributed simultaneously to the ESL and content learning in this non- formal context. This investigation will contribute to connect formal and informal education, study those aspects which are mainly potentiated when pupils are not at school (in an attempt to introduce them in class and eventually motivate students) and make pupils reflect on their own process of learning.

1. Introduction

1.1 Informal education and ICT

The use of technologies has become a normality regarding different contexts and circumstances. They provide information and set of tools which are helpful for professional, academic, social and personal development. In this sense, technologies have become subject to study in educational contexts about their applications, benefits and investigation of new methodologies to be applied. Consequently the term *e-learning* has emerged. García Peñalvo (2005) defined *e-learning* as the pedagogical application of digital technologies in the process of teaching and learning. Thus, its constitution is dual since it requires the fusion of digitalization and pedagogy. Digital phenomena and elements are also present in other aspects of our lives. These items are currently utilized for a set of aims: work, communication, collaboration, creation, among others. They also take part in the different educational contexts: formal, non- formal and informal education. Most studies and researches concentrate on the use of digitalization among formal education, whereas non-formal and informal education and their correlation with educative digital technologies have not been fairly analyzed. However, Banks et al. (2007) have demonstrated that formal learning encompasses a 19% of Primary And Secondary Education pupils knowledge, abilities and skills and this number decreases through they grow up, reaching a 5% of knowledge in graduate individuals. In this sense, it has been revealed the relevance of learning processes in non- formal and specially informal contexts. Informal contexts, which is defined as non-institutionalized, non-intentional, spontaneous and life-long process of learning (Trilla, 1986). This concept of informal education evokes a representation of how unexpected circumstances and individuals can produce impact on our consciousness and transmit knowledge. In this sense, informal education englobes a great variety of contexts in which we can learn. Eshach (2006)

added that informal learning is also characterized by a non-structured, non- sequential with no authority figure guiding and evaluating. In other words, informal learning entails an essential part of *lifelong learning*.

The use of Information and Communication Technology[1] (ICT) in these different educational contexts imply not only to pay attention to how to teach. It also suggests the necessity to get to know what students learn in informal situations when they are using ICT (Sefton- Green, 2007). Knowledge, abilities and skills obtained in informal educational circumstances through ICT are required to be discovered since they represent previous knowledge and key factors during the learning process. The use of technologies in informal contexts increases visual intelligence due to the representation of visual atmospheres that can be created. As a consequence, cognitive processes and inductive analysis are potentiated (Greenfield, 2009).

It has been recognized the positive impact that YouTube and other streaming platforms have among pupils for the learning of the English language (Brook, 2011; Alwehaibi, 2015; Frumuselu *et al*., 2015). Benson (2015) analyzed YouTube and discovered its positive consequence among intercultural learning and similarly, Dizon (2018) identified vocabulary acquisition and pragmatic knowledge of the language by means of using YouTube as a learning platform. Streaming platforms evoke new scenarios of sociolinguistic and intercultural learning. Although these scenarios might be fictitious in some cases, they encompass a set of beliefs, values, process of socialization and forms of expression in other cultures and communities. Moreover, streaming platforms incorporate a great amount of dialects and varieties of English and non-academic or informal use of the language. Indeed, streaming platform are characterized by both audio and visual production: the two mediums of knowledge reception according to the Theory of Multimedia Learning that states the importance of designing and converge both channels in order to obtain a potentiated learning process (Mayer, 2005[2]). Nevertheless, little has been studied upon the simultaneous learning of contents and foreign language (CLIL) in informal and digital contexts.

1.2. CLIL methodology, ICT and informal contexts of learning

The CLIL methodology, Content and Language Integrated Learning', term introduced by D. Marsh in 1994, has suited one of the most relevant pedagogic approaches in Primary and Secondary Education due to its dual objective: learning content and language acquisition by means

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[1] By this moment, this concept will be mentioned using the ICT acronym.

[2] This theory states that knowledge is a constructive process in which there are two channels of information acquisition and, thus, transformation into knowledge: audio and visual. In this sense, this author (Mayer, 2005) analyzed the combination of both resources for an optimal teaching and learning process.

of using the foreign language (usually English) as the communication and teaching-and learning-process tool. Marsh et al. (2010) recognized five dimensions present in the CLIL methodology:

- Cultural because it invites to the creation of intercultural knowledge and develop intercultural communication thus introducing pupils' to new cultural contexts.
- Environmental since it provokes preparation for internalization and differentiation between local, regional, national and supranational areas.
- Linguistic because of the improvement of the target language competence, awareness among the mother tongue and development of plurilingual interests and attitudes.
- Content due to the introduction of new learning perspectives, acquisition of specific-field terminology and preparation for labor activities
- Learning dimension through the utilization of individual learning strategies, selection of different methodologies and classroom techniques to improve and motivate the learning process.

CLIL-programmes implementation constitutes a new process of teaching and learning that requires constructive and student- centered approach (Marsh, 2002). This educational model reproduces the interconnected social phenomena in which English has become an imperative resource. By creating new education contexts in which English is used as the element of communication, pupils are able to develop the different foreign language skills and adopt a new vision of the language: a new code of communication.

The implementation of CLIL programmes in Spain began to be spread during the 2000 decade, although it had already started in the 1990s decade through an agreement between the British Council and Ministry of Education. Wojtowicz *et al*. (2011) demonstrated the potential of combining ICT and CLIL methodologies in the learning process, observing great results in the learning process. Salvadori (2017) observed the impact of ICT in CLIL programmes. She (Salvadori, 2017) discovered that digital tools contributed to redefine the teacher's role in-service and pre- service training. Moreover, the use of these aids increased pupils' outcomes and learning goals regarding competences. Frigols Martín (2008) states the two main goals of CLIL programmes in the Spanish Education:

- To promote bilingualism in monolingual communities.
- To foster multilingualism in bilingual Spanish communities.

The main goal of bilingual programmes would be considered to improve pupils' competence of English by means of its introduction in non-linguistic disciplines. This process invites a contextualized and learning of English as a medium, not as a result. However, the connection between CLIL programmes and informal contexts has not been deeply analyzed. The Council Recommendation of December 2012 affirmed the necessity to cooperative between formal and informal contexts for pupils' knowledge construction for their professional, social and personal life. Teppo (2014) recognized that informal contexts contributed for the knowledge

construction and new methods of applying content to everyday experience in CLIL environments. Cinganotto (2016) expressed the correlation between CLIL, informal education and ICT:

> The "affordances" of students' informal practices may be extraordinary, if we consider the ways in which e-tools such as personal digital devices, communication tools and social networking can be used and how they can enhance processes of content and language integrated learning (7).

Current educational methodologies have adopted interconnected programmes such as CLIL methodology and interdisciplinary approaches between disciplines. In this case, the collaboration between formal and informal contexts, as well as the integration of CLIL methodologies in these digital informal spaces represent a new educational vision based on integration and cooperation processes.

2. Methodology for Data Collection

35 pupils whose ages vary from 12 to 15 years old have been selected for the development of this study, those aged 12 represent a 34,3%, pupils aged 13 are a 20%, 14-year-old pupils represent a 25,7% and students aged 15 are a total of 20%. Thus, these students belong to different levels of the compulsory system of Spanish Secondary Education. The education institution they belong is a private center localized in a rural area of Tenerife (Canary Islands, Spain), although most pupils live in urban areas. This school belongs to an ensemble of educational institutions around the island. This school has been nationally recognized for its innovative methodologies regarding the use of digital technologies for digital purposes and the use of ESL during the learning process. One of the most interesting politics applied in this school is the use of electronic devices (tablets) since 5-year-old pupils. This academic institution aims a great development and skills of digital resources since early ages. Moreover, pupils start the bilingual programme since age 4, firstly concentrating on oral aspects and later introducing written English. Teachers are required certified knowledge, skills and abilities regarding digital competence in this school.

All these pupils belong to the CLIL programme carried out in the school. These pupils usually learn non-linguistic disciplines such as Arts, Geography, History and Science using English as a vehicle of learning, teaching and communication.. They are exposed more than 15 hours per week to the English language as the medium instruction. The 100% of these students have Internet connection at home and use electronic devices (tablets) to study in class, since it is the required medium for studying in the different lessons. Indeed, above 90% of these pupils utilize streaming platforms during their free time out-of-school.

For this study, a questionnaire has been developed taking into account the amount of time that they spend in streaming platforms, how language and contents are learnt through this format of informal educational context. A total of 13 questions have been selected for this analysis in which students had to choose between four options. Additionally, this research aimed to study the connection between the contents and linguistic knowledge, skills and abilities of formal contexts (school) and those seen in audiovisual elements by pupils. For this reason, firstly, this study has

concentrated on the linguistic aspects learned or acquired through streaming platforms and secondly examined the non-linguistic aspects learnt by means using both the foreign language (English) and digital aids as learning channels.

3. Findings and Results

As previously mentioned, this study aimed to analyze the informal learning of language and contents by means of using digital aids. In order to comment these results, different graphics of the most relevant results have been elaborated for data discussion. As commented before, 100% of these students have Internet connection and their electronic device. Before starting, it was crucial to get to know the amount of time that was invested in these platforms for the interpretation of the data obtained. 31,3% of these students recognized that they pay between two and four weeks to audiovisual material, whereas the 31,43 admitted that their period of investment on streaming platforms was between four and six weeks. It was also asked one important element, which is also required when students are starting to study in any bilingual programme: the process of adaptation. 34,3% of these students recognized that it took them between four and six weeks, whereas the 31,43 said that it took them around two and four weeks. One the earliest questions that has been discussed during the development of the questionnaire was the format in the audiovisual element was watched: using the mother tongue or target language and, in the case of the last one, how it was usually received by pupils in these channels.
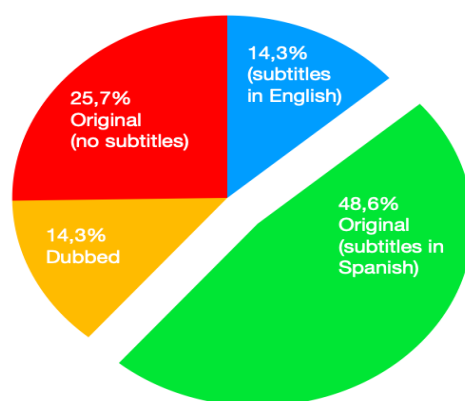

Graphic 1. Analysis the format of the language received in streaming platforms

Almost half of the students (48.6%) recognized that they usually watch series in the original language (English, in most cases) using subtitles in English. This result demonstrates the important function that the foreign language has acquired during their out-of-school time.

Several of these students commented that watching audiovisual sources on streaming have been useful to get the used to the English discourse and to assimilate linguistic codes that they have later applied in class. Moreover, this result demonstrates that these students are exposed to English oral and written reception when they watch audiovisual aids in streaming platforms. In this sense, pupils have been asked to reflect upon this language reception and the use of the target language at school:
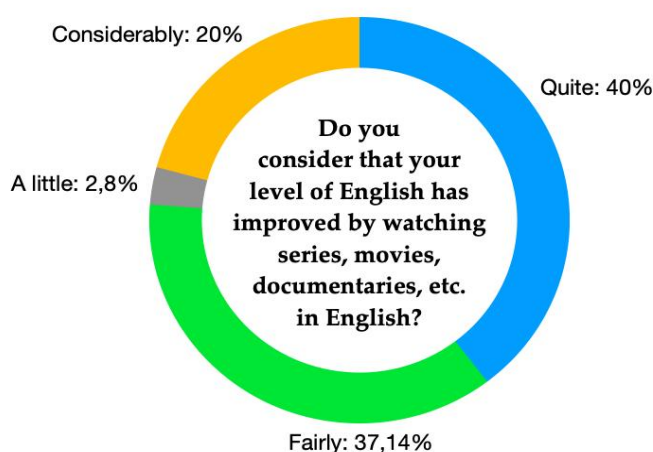
Graphic 2. The improvement of the foreign language by audiovisual aids

The 40% of students affirmed that watching audiovisual productions (such as series, movies and documentaries) have helped them 'Quite' to improve their English level in terms of English reception. Moreover, the 20% of the tested students recognized that the impact of the English language in this informal context has 'Considerably' improved their English reception. These outcomes highlight the great influence that informal contexts have upon pupils' education in terms of language improvement. For this reason, they have been asked which linguistic aspects have been developed the most by using these platforms in the English language:
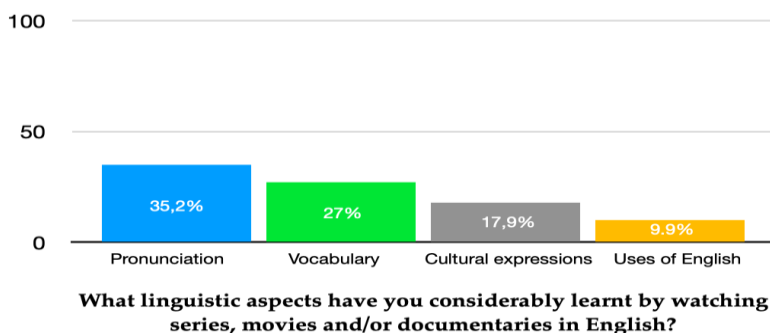
Graphic 3. Study on linguistic elements improved on the English language by on streaming resources

One of the main aspects that pupils affirmed that they have improved by watching audiovisual production is Pronunciation (35,2%). This result is certainly expected since the exposition of the real language and the different dialects and varieties of English that pupils can access by digital platforms on streaming. Moreover, the 27% have affirmed that they have learned new vocabulary by these platforms, and 17.9% of them cultural expressions. This last result states the learning of sociolinguistic knowledge of pupils by this model of informal education. In fact, students added comments such as 'I have been able to appreciate the different pronunciation of the same word depending on the country' and 'I have seen that English Phonetics is different from the Spanish one'. Consequently, this linguistic reception has a great impact upon pupils' and their relationship with the target language, the relativity of the phonetic character of the language and thus, developing metalinguistic knowledge through this formal of informal learning. The 54,3·% of these admitted that audiovisual materials on streaming platforms have helped them 'fairly' to understand or study a discipline, and 22,9% think that its contribution is 'quite'. They have added comments such as 'sometimes the issues are not connected with the aspects we study in class', 'I do not usually see much connection' and 'They have helped me to get adapted to the English language but not to the learning of contents'. Students were also asked to examine the degree of positive contribution that this language reception had on their CLIL disciplines, it est, the intensity that these platforms helped to the non-linguistic disciplines taught in the English language:


To certain extend have mainstream platforms helped you to get adapted to CLIL subjects?

Considerably: 5,7%

A little: 17, 14%

Fairly: 40%

Quite: 37,14%
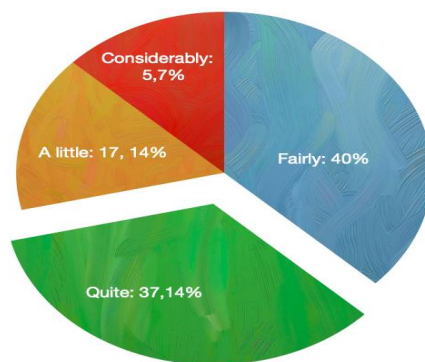
Graphic 4. The impact of the English language on streaming as a medium to adapt to CLIL subjects

The results obtained in this questions are diverse. 40% maintained that the reception of the English language by digital platforms has 'Fairly' helped to adapt to CLIL lessons, whereas the 37.14 % of pupils have insisted that its contribution on the CLIL methodology in class has been 'Quite'. Thus, informal education in digital and plurilinguistic environments have certainly positive impact on pupils' adaptation to this language and content integrated approach. When they were asked the degree of connection between the contents seen in these platforms in English, the 68,6% answered that 'Fairly' they could notice the association between those aspects learnt in class and through streaming platforms. This study has also concentrated on the correlation

between the target language (English) and the non-linguistic knowledge learnt through streaming channels:
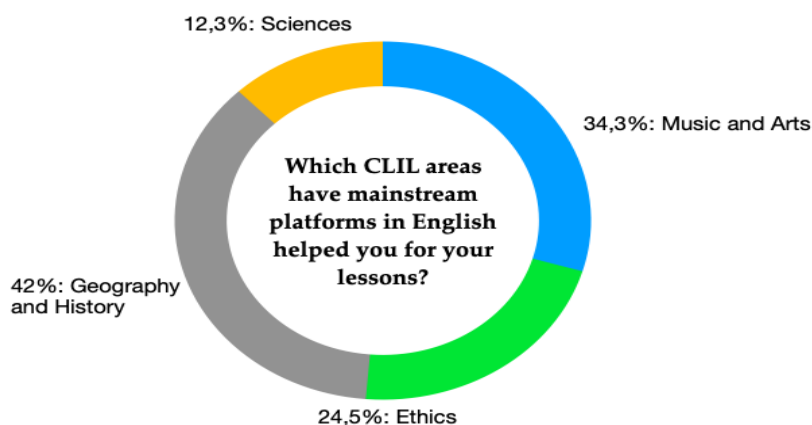
Graphic 5. The disciplines that have been mainly benefited by learning through informal digital contexts

The main areas that have been positively influenced by watching audiovisual creations online using English as a linguistic channel are Geography and History (42%) Music and Arts (34.3%) and Ethics (24.5%). Pupils' comments highlighted the learning of historical aspects, data and curiosities, as well as cultural aspects of other nations. In fact, one pupil affirms that watching audiovisual material has helped her to acquire vocabulary about Humanities that she later needed at school. One students considers that watching historical and series are contextualized is a great way of learning because one can get to know the historical background closer and even connect with the ideas of that time. Other pupils, who says that he usually watches animal documentaries, comments that he has also been able to perceive how these beings are conceived depending on the culture and the scientific research developed among animals. These results are tremendously meaningful because these informal digital context provides new knowledge that may contribute to the learning process in the formal context. Indeed, getting to know pupils' knowledge learnt by these informal and digital contexts in which English is used a linguistic vehicle would be a great contribution to recognize pupils' previous knowledge and interests. Finally, this research has aimed to determine the procedure of the English language in this informal and digital context:
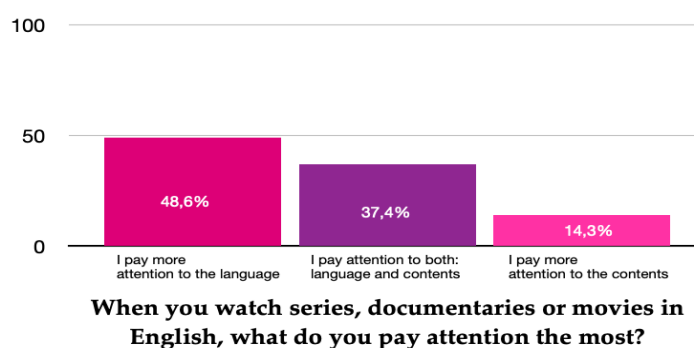
Graphic 6. Attention focused on language and/or contents in these informal digital contexts

It has been discovered that 37.14% of pupils pay attention simultaneously to the content and linguistic aspects during their reception in audiovisual aids. This result frames a considerably outcome of the CLIL phenomenon taking place in streaming platforms. 48.6% of pupils recognized that they pay attention to the language used, thus causing a learning process in the audiovisual reception and 14.3% affirmed that they paid more attention to non-linguistic content, producing an acquisition of the target language. In this specific part, the aim was to analyze the degree of learning and/or assimilation of the English language, because they were lately asked their awareness of knowledge contribution by using these digital platforms. The 71,4% of these students recognized that they pay attention to the dual aspects: language and aspects. This result highlights the conscious process of the language (thus, learning) and the content-learning simultaneously, which are the main goals of CLIL programmes.

Certain pupils suggest that introducing this format of learning, in which the digital platforms and the disciplinary content is connected is a source of motivation in which they can share and even create tasks through it. The 31,43% admitted that they would 'quite' like to introduce this format of learning, whereas almost half of this experimental group (48,6%) 'considerably' revealed their inclination to use this model of learning in class.

4. Conclusions

This research has studied the processes in which pupils learn in new informal contexts caused by the increase of digital environments where the English language is used as a vehicle of communication and entertainment. Although this research has been developed upon a small group of pupils, the results suggest the high impact that digital platforms have upon pupils and its fairly connection with the contents studied in the formal institution or school. This study also suggests the necessity to revise the learning of the English language through this digital and informal contexts in order to check out the quality and veracity of the linguistic aspects learned because of the guideless input of the language. In fact, these platforms are characterized by the use of a digital English language, thus its introduction and analysis in class offers new lines of teaching and learning how to use the foreign language. Moreover, it has been analyzed the correlation of content and language input through digital platforms, thus, this research also contributes to continue analyzing its relationship in out-of-school contexts in order to suit a correct learning of the foreign language and non-disciplinary contents. Regarding the CLIL scenario that streaming platforms offer, these results advocate the relevance of studying from school the process of adaptation that pupils have upon the use of these digital platforms in the English language may have an impact upon the CLIL programmes in the formal learning. New proposals for investigation in this line would be the analysis of possible methods of communication that pupils establish throughout these digital platforms, as well as the different topics and contents that they usually use as object of interaction.

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