STUDENTS INPUT AND OUTPUT IN ENGLISH AS A FOREIGN LANGUAGE & SUBJECT CONTENT THROUGH DIGITAL STREAMING PLATFORMS

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Abstract

Teaching and learning have been broadly modified due to the introduction of digital devices in the classroom, as well as Content and Integrated Learning methodologies applied. Digital and linguistic tools have been concurrently utilized to teach and learn subject contents. However, poor study has been developed upon informal contexts of CLIL learning through streaming platforms. Thus, this study is a continuation of an early contribution (Díaz- Luis, 2020) about language and content learning through digital audiovisual platforms. For this reason, an investigation has been conducted (n= 39) selecting private Secondary Education high school students to analyze how they learn English as a foreign language and subject content while they are watching audiovisual material online. A questionnaire has been created to investigate how the English language and disciplinary aspects are learned. The results have demonstrated that these informal practices have certain learning contributions to different disciplines being English the *lingua franca* in these digital platforms.

1. Introduction

Learning a foreign language, especially English, has incredibly increased in the last decades due to the rise of multiple sources, awareness of a multicultural and globalized society, a need for a common medium of communication between socio-cultural communities and the considerable development of digital tools. In fact, learning a foreign language (not only English, but any kind) requires a dynamic experience, as well as a realistic input and output of the language use. Digital teaching and learning have risen due to the sociological processes of digitalization internationally. Digital tools have not only modified our working patrons and routines, but also how we typically enjoy our free time.

Making informed decisions about what to study, and defining your research question, even within a predetermined field, is critical to a successful research career, and can be one of the hardest challenges for a scientist.

2. Digitalization of Education in Formal Contexts

School digitalization has been a key issue during the last decades. Teaching and learning through new mechanisms such as digital aids propose new forms of education interaction, processes of teaching-learning and new learning resources. To watch audiovisual sources in class generates a stimulating technique in comparison to ordinary textbooks and individual agency, sociality and temporal fluidity in informal learning environments result in new constructions of knowledge and interpretations. (King, 2002; Meyers et al, 2013).

In fact, Prensky (2001) introduced the concept of 'native digitals', referring to those generations that were in touch with digital tools since early ages and implying that these generations have developed new modes of communication and thinking and reasoning cognitive operations. Although his concept lacked scientific study, it has been widely utilized in the academia to debate about social digitalized evolution. However, an analysis has been developed among scientific literacy about young generations and their digital practices; it was concluded as following:

> "*Looking at the research, however, we see that there is no one monolithic group that we can point to and say those are digital natives. As a matter of fact, the individuals who would fit the stereotype of digital native appear to be in the minority of the population. (Koutropoulos, 2011, p.531)*"

Digital tools are mainly characterized by instant information sources which must be critically selected. However, being able to search and find information does not mean a good knowledge in digital literacy, since a primordial stage that makes a good literacy behavior is to analyze critically and adequately the source of information regarding scientific evidence, quality, veracity, and author's authenticity, among the most relevant factors.

Ng (2012) noticed that those generations considered to be 'digital natives' had great abilities regarding unfamiliar tools for useful artefacts, although they were not aware of the educational advantages of digital instruments. This analyzed conception of digital tools can be considered as subject of debate due to the great impact that digital tools have acquired in educational contexts. It is unquestionable that digital interaction generates new experimental processes of communication and information reception. Digital tools are mainly characterized by instant information sources which must be critically selected. For this reason, the gap needs to be broken between digital formal and informal contexts as an operation to instigate digital criticism and good digital practices. The use of mobile phones in formal education has created a bridge between formal and informal education, thus new proposals for new didactic strategies have been debated (Sánchez-Prieto et al., 2016).

It has been observed that the use of L2 in digital contexts increases autonomy, being reflected on L2 proficiency, and being influenced by digital literacy (Toffoli & Perot, 2017). Thus, a connection is noticed between L2 autonomy and proficiency and the digital knowledge that students may have. This leads to reflection on not only the assessment of the language online but also learners' digital competence and how both language and digital tools are applied simultaneously.

3. Digital Practices within CLIL Programs

The digitalization of school environments has been an object of analysis due to the impact that digital technologies may generate among teachers and learners. Digital tools are only found in formal contexts, and consequently they have been utilized and they are still used as sources of information for CLIL subjects. In this last scene, two elements are being used for information

transmission: English (as a linguistic code for communication) and digital devices (as tools that allow information reception, interaction, and communication). In fact, sources such as YouTube are very helpful to develop foreign language skills (Listiani et al., 2020). Consequently, this study suggests a growing relationship of reciprocity has been created among digital tools and foreign language usage. In fact, applying a new linguistic code as a tool simultaneously with a digital instrument requires undoubtedly processes of adaptation, especially in order to combine these two tools meanwhile contents are being taught and learned in complete digital environments, as stated by De Santo and De Meo (2016), analyzed the processes of e-tutoring of CLIL teachers, observing that there was a need to adapt their pluri-linguistic competence to the virtual scenario.

Although it might be a difficult task to implement a foreign language code and digital aids concurrently, multiple advantages can be found in the learning processes as double instruments are being used. Georgopoulous-Theodosiou & Rangous (2015), learning in a CLIL environment utilizing digital tools simultaneously has contributed to students' active learning, technological skills development, and experiences that impulse language acquisition and communication. More advantages have been demonstrated, as Della Ventura (2017) studied the impact of the CLIL programs through an e-learning model, affirming that technological and digital resources in CLIL contexts improved learners' performance regarding foreign language skills.

A competencial CLIL system utilizing e-learning strategies and tools is possible by means of practical mechanism such as WebQuests (Bazo-Martínez and Francisco-Déniz, 2018):

> *The new of a 'competent citizen' includes the development of different skills such as analyzing information sources, autonomous search for information, problem solving, communicating information correctly and meaningfully, and so on. This paper has shown that it is possible to integrate foreign language learning with the content of Social Sciences and the development of digital literacy through WebQuests. These can be powerful learning tools in the hands of teachers in bilingual education/schools, provided some ground rules for their use are observed. (Bazo-Martínez and Francisco-Déniz, 2018, p. 171)"*

As they have stated, digital literacy can be integrated into learning situations and social tasks to promote an incorporated set of competences that work together with an interdependent relation. WebQuests are demonstrated to be digital tools that function adequately from a competencial, bilingual-educational perspective in a digital environment.

Informal tools can be greatly utilized by school to teach and learn although they are still not considered in formal education (Veletsianos, 2013; Pöntinen, Dillon &Väisänen, 2017). In this sense, digitalized learning has been analyzed from formal perspectives as previously commented. However, when it comes to observing and reflecting on the impact of informal digital learning, little research has been developed.

4. Informal Digital Learning of English as a Foreign Language (EFL)

Language acquisition can happen in both formal and informal contexts if only the output is comprehensible for the learners (Krashen, 1982). Language as a subject of inquiry in processes of acquisition is possible through informal environments, although adequate material or output is required for these acquisitional processes. In this section, we will rather concentrate on learning processes of EFL, i.e., conscious procedure studies through digital platforms. Beforehand, the concept of informal language learning requires to be defined: 'People carrying out these online are not primarily seeking to learn English through them, although language development may be taking place.' (Sockett, 2014). Consequently, informal language learning is a spontaneous process in which the learner does not expect to learn a new aspect of language; it lacks monitoring or assessment activities. For this reason, Godwin-Jones (2020) mentioned that learners' access to online materials may help them to remove stereotypes and cultural mainstream beliefs. However, to make this possible, these materials shall be treated in class to teach students to create a critical and multicultural perspective, as well as to construct strategies for correct materials selection and utilization. To make it possible, Thorne & Reinhardt (2008) constructed 'bridging activities' in the classroom to promote effective digital practices in formal and informal situations. As a matter of fact, this author (Godwin-Jones, 2018) developed a project by which intermediate-level students were asked to select, share, and assess real online materials in L2 to create digital literacy knowledge for online language learning.

The processes of informal digital education require new approaches due to the unstructured and implicit learning characterized in informal contexts compared to self-directed and self-controlled formal learning (He & Zhu, 2017). This characteristic is led due to the natural environment and procedure related to informal learning. Although unstructured and less oriented learning process, students' engagement towards extramural digital activities and their motivational attitudes can influence their emotions in the learning of the target language (Lee, 2020). Thus, a correlation between formal and informal education can be noticed from the latest study: those students who are more exposed and utilize digital platforms more often are said to have better attitudes and engagements towards the learning of the target language in formal contexts. Moreover, students that typically use digital tools during their free time are considered to have more effective cross-cultural communication strategies due to the multicultural environment of the Internet (Lee, 2020). Jurkovič (2019) observed a dynamic relationship developed between the use of English in digital contexts and the participants' system of communicative competence in the English language, as well as learners' digital practices much related to receptive activities rather than interactive and productive. In fact, Lee (2019) studied the impact of informal digital learning of the English language observing a great contribution regarding speaking, productive vocabulary knowledge and anxiety levels in those students who usually practice IDLE activities.

Teachers may play a crucial role in developing informal contexts as language learning opportunities out of the classroom due to the engage students' identities in and out of the classroom, producing a sense of continuity from what is learned in class, what they and what they

are interested in (Ushioda, 2011; Godwin-Jones, 2019). Utilizing the input of informal environments to study in formal contexts creates interdependence between formal and informal learning environments that may help students understand better reality diversity. For this reason, an investigation has been held to study students' input of foreign language and subjects' content in digital streaming platforms and how they apply these informal learning aspects in formal context (students' output regarding informal processes learning in the classroom).

5. Methodology

For this investigation, students (n=39) belonging to a high school situated in Southern Tenerife (Canary Islands, Spain) were selected. These high school students aged from 12 to 16, thus representing the compulsory education courses of Spain related to Secondary Education. This school is in a semi-urban area, and students' socioeconomic conditions are middle class. All these learners (100%) affirmed to have Internet connection at home as well as their own digital devices. The studentswereclassified as followed:

Gender	Number of Students
Male	24
Female	15

Table 1. Number of students and gender related.

All the pupils selected belong to a CLIL program developed in the school since Primary Education. Indeed, digital devices are utilized to teach and learn aspects regarding the digital competence such as literacy, information selection, digital security, and ethics, among others. As previously affirmed, students' ages are different in an attempt to obtain a multi-perspective study regarding age and cognitive processes:

Ages	12	13	14	15
Number of Students Selected	15	10	10	6

Table 2. Students' age.

6. Data analysis

As previously mentioned, a set of ten questions were created to get to know pupils' experiences related to informal digital environments associated with L2 and subject content. The first question for this research was formulated as: 'When you learn new things on streaming platforms while you are watching in English, what is more complex for you to understand?' and 59,55% of pupils recognized to be specific vocabulary, and the 22,68% of students said to be Phonetics. When watching series, documentaries, or movies online, the input might be affected by the audience's lack of knowledge regarding that specific subject and, consequently, disinformation about specific concepts. The second question that aimed to get to know students' exposure

towards specific types of vocabulary, 40,51% of pupils affirmed to be artistic, 34,04% of them said to be scientific and 19, 15% mentioned historical vocabulary.

The role of English as L2 was also analyzed as a 'bridge' between other languages found in digital platforms different from the pupils' mother tongue. Due to the role of English as *lingua franca*, many audiovisual materials can be found in the original language but subtitled in English. This fact was one of the subjects of study in an attempt to investigate students' usage of English and their interests towards other languages. Consequently, the question 'Have you used English subtitled in movies/series/documentaries to watch the movie/series/documentary in the original language?' was formulated. 68,18% of the students answered affirmatively. Pupils were also asked those languages that expose themselves to, obtaining the next results:

Other Foreign Languages Learned	Percentage
Japanese	47,8%
French	13,4%
Italian	13%
Korean	4,3%
German	4,3%
Dutch	4,3%
Chinese	4,3%
Arabic	4,3%
Swedish	4,3%

Table 3. What languages have you learned the most?

These results show up surprisingly a great quantity of students (47,8%) that consume audiovisual Japanese material utilizing English as a supporting communicative medium for understanding. Lately, students were questioned if they had ever used streaming platforms to expand any concept or explanation for any CLIL subjects. The results are these:
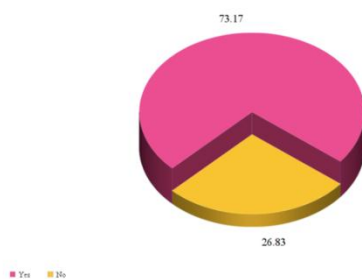

Figure 1- Students' use of digital platforms to expand their knowledge studied in CLIL subjects.

In this particular question, a considerable number of students (73,17%) affirmed to use digital platforms in order to exemplify, illustrate or simply understand subject content studied in the CLIL program. This result leads to wonder how students are utilizing other environments such as digital platforms to further their studying processes. For this reason, pupils had to select those areas that they mainly concentrated on:

Subject	Percentage
History	36.61
Science	33.49
Math	20
English	3,33
Politics	3,33

Table 4. Main areas students concentrate on through digital platforms.

Results demonstrated that History and Science are the main CLIL areas studied informally by means of using the foreign language as a medium of instruction. This conscious selection of audiovisual contents to learn and understand better knowledge and aspects in class demonstrates pupils' consciousness upon different environments for learning, so this kind of informal education (typically not regulated, not self-oriented and not assessed) becomes a conscious activity that pupils' practice to improve their learning. The next question wondered if teachers have used streaming platforms for further class activities (debates, reflections, role play, etc.), the results are quite interesting:
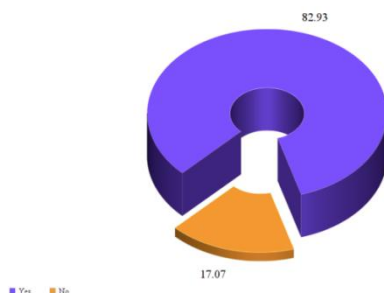

Figure 2. Students' experience regarding teachers' use of digital platforms in class.

A great quantity of pupils (82,93%) recognized that teachers have utilized digital platforms in the classroom to construct learning experiences and activities. These engaging results suggest that formal and informal contexts are becoming increasingly closer. As a result, pupils were also asked if CLIL teachers usually recommended them online audiovisual material in order to expand their knowledge. CLIL subjects that mainly recommend students to use digital platforms as a new learning tool are these:

Subject	Percentage
Science	38,24
Ethics	26,47
History	14,7
Religion	12,9
English	7,69

Table 5. CLIL areas that mainly recommend learning through streaming platforms

7. Discussion and Conclusions

Before conclusions are reflected, limitations shall be commented beforehand. It must be considered that the number of students was not huge, thus general conclusions cannot be developed. Moreover, all these students belong to the same high school; consequently, all these students have the same educational background regarding formal education and belong to the same social and geographical area.

Certain conclusions have been drawn for further research. Not only students but teachers have recognized that online audiovisual materials may be held as interesting materials for teaching and learning experiences. Also, a great quantity of students recognized to use English as a bridge language to get to watch original audiovisual materials throughout subtitling, suggesting students' recognition of English as a lingua franca, i.e., a medium of international communication among cultures and societies. Also, students' recognition of those communicative aspects that are more complex to understand such as Phonetics of specific vocabulary makes pupils aware of not only the discipline content difficulty but also communicative competence handicap. In fact, results upon teachers' role and combination between formal and informal audiovisual material makes a bridge between these two types of education that may help students contextualize what they are learning, as well as to be able to identify what they learn in more than one context, thus potentiating interpreting, analyzing, and even analyzing what they learn in more than one situation.

Digital competence and communicative competence are two essential components in nowadays learning processes. These two competences shall be treated from an interdepended perspective due to the correlation observed in this study, as well as to foster teachers to include informal audiovisual material, not only to contextualize the learning experience, but also to make students develop communicative and digital strategies to select, analyze and utilize foreign language digital resources adequately.

References

Della Ventura, M. (2017, June). Technology-enhanced CLIL: Quality indicators for the analysis of an on-line CLIL course. In International Conference on Smart Education and Smart E-Learning (pp. 339-347). Springer, Cham.

Díaz Luis- N. R. (2020). CLIL & informal digital education: learning contents and language through streaming platforms, *9*(4), 70-80.

De Santo, M., & De Meo, A. (2016). E-training for the CLIL teacher: e-tutoring and cooperation in a Moodle-based community of learning. Journal of e-Learning and Knowledge Society, 12(3), 41-49.

Georgopoulous-Theodosiou, C., &Rangous, M. (2015, November). Content and Language Integrated Learning (CLIL): an experimental study on CLIL compatibility with the modern Greek educational system. In International Conference 'Science in Technology'SCinTE. Available at: www. scinte. gr/.../7% 20LearningTeaching% 20Methodologi es. Pdf.

Godwin-Jones, R. (2019). Riding the digital wilds: Learner autonomy and informal language learning. Language Learning & Technology, 23(1), 8-25.

Godwin-Jones, R. (2020). Building the porous classroom: An expanded model for blended language learning. Language Learning & Technology, 24(3), 1-18.

He, T., & Zhu, C. (2017). Digital informal learning among Chinese university students: the effects of digital competence and personal factors. International Journal of Educational Technology in Higher Education, 14(1), 1-19.

Jurkovič, V. (2019). Online informal learning of English through smartphones in Slovenia. System, 80, 27-37.

King, K. P. (2002). Educational technology professional development as transformative learning opportunities. Computers & Education, 39(3), 283-297.

Koutropoulos, A. (2011). Digital natives: Ten years after. MERLOT Journal of Online Learning and Teaching, 7(4), 525-538.

Krashen, S. (1982). Principles and practice in second language acquisition. Oxford: Pergamon Press.

Lee, J. S. (2019). Informal digital learning of English and second language vocabulary outcomes: Can quantity conquer quality?. British Journal of Educational Technology, 50(2), 767-778.

Lee, J. S. (2019). Quantity and diversity of informal digital learning of English. Language Learning and Technology, 23(1), 114-126.

Lee, J. S., & Lee, K. (2021). The role of informal digital learning of English and L2 motivational self-system in foreign language enjoyment. British Journal of Educational Technology, 52(1), 358-373.

Listiani, N. K. M., Suwastini, N. K. A., Dantes, G. R., Adnyani, N. L. P. S., &Jayantin, I. G. A. S. R. (2021, April). YouTube as Digital Learning Resources for Teaching Bilingual Young Learners. In 2nd International Conference on Technology and Educational Science (ICTES 2020) (pp. 156-162). Atlantis Press.

Martínez-Bazo, P. E. & Francisco Déniz, S. D. (2018). Digital competence and CLIL: The Use of WebQuests in Bilingual Education. e-TEALS, 9(s1), 153-172.

Ng, W. (2012). Can we teach digital natives digital literacy?. Computers & education, 59(3), 1065-1078.

Meyers, E. M., Erickson, I., & Small, R. V. (2013). Digital literacy and informal learning environments: an introduction. Learning, media and technology, 38(4), 355-367.

Pöntinen, S., Dillon, P., &Väisänen, P. (2017). Student teachers' discourse about digital technologies and transitions between formal and informal learning contexts. Education and Information Technologies, 22(1), 317-335.

Prensky, M. (2001). "Digital Natives, Digital Immigrants". In: On the Horizon, 9 (5). Available in: http://www.marcprensky.com/ writing/Prensky%20-%20Digital%20Natives,%20Digital%20 Immigrants%20-%20Part1.pdf [Date of reference: 1 May 2021].

Sánchez-Prieto, J. C., Olmos-Migueláñez, S., & García-Peñalvo, F. J. (2016). Informal tools in formal contexts: Development of a model to assess the acceptance of mobile technologies among teachers. Computers in Human Behavior, 55, 519-528.

Sockett, G. (2014). The online informal learning of English. London: Palgrave.

Thorne, S. L., & Reinhardt, J. (2008). "Bridging activities," new media literacies, and advanced foreign language proficiency. Calico Journal, 25(3), 558-572.

Toffoli, D., & Perrot, L. (2017). Autonomy, the online informal learning of english (OILE) and learning resource centers (LRCs): The relationships between learner autonomy, L2 proficiency, L2 autonomy and digital literacy. Marco Cappellini; Tim Lewis; Annick RivensMompean. Learner Autonomy and Web 2.0, Learner Autonomy and Web 2.0 (2), Equinox, pp.198-228, 2017, Advances in CALL Research and Practice, 13 9781781795972. ffhal-02332599f

Ushioda, E. (2011). Language learning motivation, self and identity: Current theoretical perspectives. Computer Assisted Language Learning, 24(3), 199-210.

Veletsianos, G. (2013). Open practices and identity: Evidence from researchers and educators' social media participation. British Journal of Educational Technology, 44(4), 639-651.